CITY OF RANCHO CORDOVA

CITY COUNCIL MEETING
Monday, March 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/82166156867?pwd=NGUweG5sZkxOTUlIZHNpL3dhYjdaUT09

Join the Meeting via the Zoom Phone Number
Zoom Phone Number: +1 669 900 6833, +1 253 215 8782
Webinar ID: 821 6615 6867
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 comments to CityClerk@cityofranchocordova.org no later than 3:00 p.m. on Monday, March 21, 2022. All comments submitted later than 3:00 p.m. will be sent to the City Council for their review and may not be read during the meeting.

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 Monday, March 21, 2022, before 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 schedules.

3. PLEDGE OF ALLEGIANCE

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

4. INVOCATION

There will be a moment of silence in lieu of the invocation.

5. PRESENTATIONS

5.1. Presentation of Proclamation in Recognition of Women's History Month.

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 March 7, 2022.
Recommendation: Adopt the Minutes.

9.2. **Subject:** A Resolution of the City Council of the City of Rancho Cordova, State of California, Expressing Support and Solidarity with the People of Ukraine.
Recommendation: Adopt the Resolution.

9.3. **Subject:** A Resolution Authorizing the City Manager to Execute Contract Amendment No. 56-2017-1 with Allied Waste Services of North America (DBA Republic Services) for the Implementation of the Residential Food Waste Collection Program.
Recommendation: Adopt the Resolution.

9.4. **Subject:** Approval of a Grant Application and Local Match Requirement for the Potential Health and Wellness Center at the Mills Crossing Civic Center.
Recommendation: Provide direction and approve the resolution authorizing application for, local match commitment to, and receipt of, Behavior Health Continuum Infrastructure Program (BHCIP) grant funds.

9.5. **Subject:** A Resolution Authorizing the City Manager to Execute Contract Amendment No. 174-2019-1 with R.E.Y. Engineers, Inc. Extending the Term to December 31, 2023, Increasing the Contract Amount from $739,649 to an Amount not to Exceed $764,649 and Adding Services for the Cordova Vineyards/Lane Neighborhood Street Rehabilitation Project.
Recommendation: Adopt the Resolution.

9.6. **Subject:** A Resolution Authorizing the City Manager to Execute Contract Amendment No. 2020-183-1 with Mark Thomas & Company, Inc. to Increase the Contract Amount from $206,800.00 to an Amount not to Exceed $319,235 and Extend the Contract Term to June 30, 2023 for the Soil Born Farms Parking Lot and Driveway Improvements Project at the American River Ranch to Increase Safety and Promote Livability.
Recommendation: Adopt the Resolution.

9.7. **Subject:** 2021 General Plan Annual Report to include the Housing Element and Multi-Jurisdictional Hazard Mitigation Plan Annual Report.
Recommendation: Receive the 2021 General Plan and Housing Element Annual Report to include the Multi-Jurisdictional Hazard Mitigation Plan as required by State law.

9.8. **Subject:** A Resolution Increasing the Annual Stormwater Utility Fee for Fiscal Year 2022-2023.
Recommendation: Adopt the Resolution.

9.9. **Subject:** A Resolution Approving the Final Map of the Ranch Village 8 Subdivision No. FM-2021-002-05 and Authorizing the City Manager to Execute the Subdivision Improvement Agreement Contract No. 2022-21 with K. Hovnanian at Jaeger Ranch LLC.
Recommendation: Adopt the Resolution.

9.10. **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 Grantline

220 Project.
Recommendation: Adopt the Resolution designating a time and place for hearing protests in connection with the annual Stormwater Utility Fee for the Grantline 220 project.

9.11. **Subject:** A Resolution Approving the Annexation of the Grantline 220 project to the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscape Maintenance).
Recommendation: Adopt the Resolution.

9.12. **Subject:** A Resolution Approving the Annexation of the Grantline 220 project into the City of Rancho Cordova Community Facilities District No. 2013-2 (Police Services).
Recommendation: Adopt the Resolution.

9.13. **Subject:** A Resolution Approving the Annexation of the Grantline 220 Project to the City of Rancho Cordova Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens.
Recommendation: Adopt the Resolution.

9.14. **Subject:** Planning Commission Member Nomination and Selection.
Recommendation: Continue the Planning Commission Member nomination and selection to the April 4, 2022 Regular City Council meeting.

10. CONSENT PUBLIC HEARING ITEMS - ROLL CALL VOTE

10.1. **Subject:** A Resolution Approving the 2021 Community Development Block Grant (CDBG) Consolidated Annual Performance Evaluation Report for Submittal to the US Department of Housing and Urban Development.
Recommendation: Adopt the Resolution of the City Council of the City of Rancho Cordova to submit the 2021 CDBG Consolidated Annual Performance and Evaluation Report (CAPER) to the US Department of Housing and Urban Development (HUD).

10.2. **Subject:** A Resolution Approving the Rio Del Oro Specific Plan, Implementation Plan for Elliott Homes, Inc. which Ensures that Elliott Homes, Inc. will Construct and Pay the Full Cost of Infrastructure Needed to Serve their Portion of the Plan Area
Recommendation: Adopt the Resolution.

10.3. **Subject:** Goddard School - Tentative Parcel Map & Major Design Review - Project No. PLND-0921-0008 & PLND-1121-0018 – Located at 3370 Zinfandel Drive; APN: 072-2360-041-0000.
Recommendation: Determine the project exempt per Section 15315 (Minor Land Divisions) and Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning) of the CEQA Guidelines; and Adopt the Resolution for a Tentative Parcel Map and Major Design Review.

10.4. **Subject:** A Resolution Approving the City of Rancho Cordova's Adjusted Storm Drainage Impact Fee Schedule for 2022.
Recommendation: Adopt the Resolution approving the attached Storm Drainage Impact Fee Schedule.

10.5. **Subject:** Resolutions and an Ordinance Related to the Formation of the City of Rancho Cordova Arista Del Sol Community Facilities District No. 2022-1.

Recommendation: Continue the public hearing to the May 16, 2022 City Council Meeting.

10.6. **Subject:** Dutch Bros. Coffee - Conditional Use Permit and Minor Design Review - Project No. PLND-1021-0013 - Located at the Southeast Corner of Sunrise Boulevard and Douglas Road in Anatolia Marketplace.
Recommendation: Adopt the Resolution.

11. PUBLIC HEARING ITEMS

11.1. **Subject:** Project Sunrise Major Design Review and Rio Del Oro Phase 5 Final Map - Project No. PLND-0821-0001: Located within Rio Del Oro Specific Plan Parcel 71.
Recommendation: Adopt the Resolution for the Rio Del Ordo Phase 5 Final Map, Determine the Project Sunrise project Exempt from CEQA per Section 15183, consistent with the Community Plan, General Plan or Zoning for which an EIR was certified; and Adopt the Resolution for Project Sunrise Major Design Review.

12. REGULAR CALENDAR ITEMS

12.1. **Subject:** A Resolution Adopting the Urban Forest Master Plan.
Recommendation: Adopt the Resolution.

12.2. **Subject:** Discussion Regarding Mobile Home Park Subcommittee Members.
Recommendation: Reappoint subcommittee members.

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 meet in closed session to discuss the following items:

1. CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION: Significant Exposure to Litigation Pursuant to Government Code Section 54956.9(d)(2) (One Case).

2. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (pursuant to California Government Code Section 54956.9(d)(1) Cordova Recreation and Park District v. City of Rancho Cordova, Sacramento Superior Court Case No. 34-2021-80003705.

17. OPEN SESSION - REPORT OUT 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 PM WILL BE CONTINUED TO THE NEXT DAY AT 5:30 PM 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

March 29, 2022	5:30 PM Special Meeting/Work Session
April 4, 2022	4:00 PM Special Meeting/Regular Meeting
April 18, 2022	5:30 PM Regular Meeting
April 26, 2022	5:30 PM Special Meeting/Work Session
May 2, 2022	4:00 PM Special Meeting/Regular Meeting
May 16, 2022	5:30 PM Regular Meeting
May 24, 2022	5:30 PM Special Meeting/Work Session
June 6, 2022	4:00 PM Special Meeting/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 March 21, 2022 Regular Meeting of the Rancho Cordova City Council was posted and available for

review on March 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 March 17, 2022 at Rancho Cordova, California.



Stacy Leitner, CMC
City Clerk

CITY OF RANCHO CORDOVA

CITY COUNCIL MEETING

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.

Monday, March 7, 2022

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 5:34 p.m.

Council Members Present: Linda Budge, Garrett Gatewood, Siri Pulipati, 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

Derald Langwell led the pledge.

4. INVOCATION

Jeff Koons of River City Christian Church gave the invocation.

5. PRESENTATIONS

5.1. Presentation of Proclamation to Alma Wilson on the Occasion of Her 100th Birthday

5.2. Folsom Lake College/Rancho Cordova Promise Program Presentation - A College Scholarship Program for Rancho Cordova Residents.

5.3. Los Rios Rancho Cordova Center Phase 2 Presentation.

5.4. Presentation of Proclamation Recognizing March 6-12, 2022 as Women in Construction Week.

5.5. New Employee Introduction - Kristina Eicher, Engineering Technician by Quoc Nham, Senior Civil Engineer.

6. PUBLIC COMMENT

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

1.Nicole Sterrett
2. Fayzah Mughal
3. Helen Bashaw
4. Betty Williams

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. The following individuals addressed the Council:

1. Derald Langwell

Mayor Terry closed the public comment period.

Mayor Terry stated that item 9.3 would be pulled for separate discussion.

ACTION: Motion to approve item 9.1 and 9.2 by Gatewood second by Budge; Motion passed with a 4:0 vote.
AYES: Budge, Gatewood, Pulipati, and Terry
NOES: None
ABSENT: Sander
ABSTAIN: None

9.1. **Subject:** Meeting Minutes from the Regular City Council Meeting of February 22, 2022.
Recommendation: Adopt the Minutes.

9.2. **Subject:** A Resolution of the City Council of the City of Rancho Cordova Adopting the

2021 Sacramento County Local Hazard Mitigation Plan Update.
Recommendation: Adopt the Resolution.

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 March 8, 2022 to April 7, 2022.
Recommendation: Adopt the Resolution.

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

1. Derald Langwell

Mayor Terry closed the public comment period.

ACTION: Motion to approve item 9.3 by Budge second by Pulipati; Motion passed with a 3:1 vote.
AYES: Budge, Pulipati, and Terry
NOES: Gatewood
ABSENT: Sander
ABSTAIN: None

10. CONSENT PUBLIC HEARING ITEMS - ROLL CALL VOTE

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

ACTION: Motion to item 10.1 by Budge second by Gatewood; Motion passed with a 4:0 vote.
AYES: Budge, Gatewood, Pulipati, and Terry
NOES: None
ABSENT: Sander
ABSTAIN: None

10.1. **Subject:** Montelena Village 4 and 6 Major Design Review for Pulte Homes Master Home Plans - Project No. PLND-1121-0019.
Recommendation: Determine 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 Montelena Village 4 and 6 Subdivision Major Design Review for Pulte Homes Master Home Plans.

11. PUBLIC HEARING ITEMS

None.

12. REGULAR CALENDAR ITEMS

12.1. **Subject:** Homeless Outreach Team Update and Discussion.
Recommendation: Receive presentation.

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

1. Travis Kimball
2. Derek Corree

Mayor Terry closed the public comment period.

ACTION: Input was received regarding the Homeless Outreach Team Update and Discussion.

12.2. **Subject:** Flavored Tobacco Ordinance Discussion .
Recommendation: Provide direction on key policy considerations and direct City staff to bring back for first reading an ordinance to prohibit the sale of flavored tobacco products.

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

1. Stacy Springer
2. Phillip Gardiner
3. Lindsey Freitas
4. Tim Gibbs
5. Kerianne Hess
6. Elisa Tong
7. Shiva Ghasemi
8. Armritpal Wraich
9. Amanda Simpson
10. Amanda Bloom
11. Eldon
12. Tim Gibbs
13.David Tooley
14. Jaime Rojas
15. Taylor Beckwith
16. Bexter Lee
17. Claudia

Mayor Terry closed the public comment period.

ACTION: Input was received regarding the Flavored Tobacco Ordinance Discussion.

13. COUNCIL REQUESTS FOR FUTURE AGENDA ITEMS

1. Bring back the Council appointments for the Mobile Home Park Subcommittee

14. ADJOURN TO CLOSED SESSION

Mayor Terry stated that the items on closed session would be continued to the March 21, 2022 Council Meeting.

15. CLOSED SESSION - CALL TO ORDER/ROLL CALL

Closed session was continued to the March 21, 2022 Council Meeting.

16. CLOSED SESSION

Council will meet in closed session to discuss the following items:

1. CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION: Significant Exposure to Litigation Pursuant to Government Code Section 54956.9(d)(2) (One Case).

2. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (pursuant to California Government Code Section 54956.9(d)(1) Cordova Recreation and Park District v. City of Rancho Cordova, Sacramento Superior Court Case No. 34-2021-80003705.

17. OPEN SESSION - REPORT FROM CLOSED SESSION

The closed session was continued.

18. ADJOURNMENT

Mayor Terry adjourned the meeting in memory of Joyce Raylee Teel, Alex Visaya, and in sympathy and support of the people of The Ukraine at 9:00 p.m.

_____
Stacy Leitner, CMC
City Clerk

MEMORANDUM

ITEM 9.2.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Cyrus Abhar, City Manager

SUBJECT: **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, EXPRESSING SUPPORT AND SOLIDARITY WITH THE PEOPLE OF UKRAINE**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution will express support for and solidarity with the people of Ukraine and those of Ukrainian and Russian descent in our community, and for a cessation of all hostilities towards the Ukrainian people by the Russian government.

BACKGROUND

Rancho Cordova is home to many refugees from the former Soviet Union fleeing persecution and seeking better lives and freedom in the U.S. Ukraine regained its independence in 1991 following the dissolution of the Soviet Union. On February 24, 2022, the Russian government launched unprovoked and unjustified attacks across Ukraine that have killed and injured many Ukrainian citizens. These attacks have been in nonmilitary and residential areas of Ukrainian cities, as well as hospitals, shelters, and other civilian facilities and have forced millions of Ukrainians to flee their country.

FISCAL IMPACT AND FUNDING SOURCE

There is no Fiscal Impact.

ATTACHMENT(S)

1. Resolution

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, EXPRESSING SUPPORT AND SOLIDARITY WITH THE PEOPLE OF UKRAINE

WHEREAS, Ukraine is the second-largest country by area in Europe, with a population of 44 million residents; and

WHEREAS, Ukraine regained its independence in 1991, following the dissolution of the Soviet Union; and

WHEREAS, on February 24, 2022, the Russian government launched an unprovoked and unjustified attack across Ukraine that has killed and injured many Ukrainian citizens; and

WHEREAS, Russian government attacks on nonmilitary, residential areas of Ukraine's cities, as well as hospitals, shelters and other civilian facilities have forced the evacuation of millions of citizens to neighboring countries; and

WHEREAS, the City of Rancho Cordova is a diverse community of nearly 80,000 who live here and 65,000 who work here. In fact, Rancho Cordova is the 29th most diverse city in the United States and the home to many residents of both Ukrainian and Russian descent; and

WHEREAS, Ukrainian-born immigrants and families of Ukrainian heritage living in the City of Rancho Cordova are concerned for the safety of their families and their Ukrainian brothers and sisters across the country; and

WHEREAS, our Ukrainian communities here and abroad have the right to live their lives peacefully, without fear and unnecessary pain, and determine their own future; and

WHEREAS, what affects one community affects us all.

NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA:

1. Declares its heartfelt support for the people of Ukraine in this time of hardship, tragedy and grief, and that we stand with them and wish for the safety of Ukraine and its citizens and a cessation of hostilities towards the Ukrainian people by the Russian government.

2. Declares its support and solidarity with the people of Ukrainian and Russian descent in our community in their struggle for freedom.

3. Condemns the Russian government's unconscionable attacks and invasion of a sovereign nation, putting the people of both countries in the way of unnecessary harm; and

4. Recognizes all that truly separates us as people is the distance of our countries, and it joins the people of Ukraine, both here and abroad, in calling for peace and an end to the conflict in their country.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

MEMORANDUM

ITEM 9.3.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director and
Steve Harriman, Operations and Maintenance Division Manager

SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT NO. 56-2017-1 WITH ALLIED WASTE SERVICES OF NORTH AMERICA (DBA REPUBLIC SERVICES) FOR IMPLEMENTATION OF THE RESIDENTIAL FOOD WASTE COLLECTION PROGRAM**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to execute Contract Amendment No. 56-2017-1 with Allied Waste Services of North America (dba Republic Services). The amendment would allow implementation of the residential food waste collection program in July 2022 as required by State law.

BACKGROUND

Senate Bill 1383 was enacted in 2016 and requires local jurisdictions to implement a variety of new programs and services intended to divert organic waste materials away from landfill disposal. The primary objective of the law is to reduce the release of methane generated by decomposition of organic materials in landfills. Methane is a potent greenhouse gas which contributes to climate change. Local government requirements in SB 1383 include residential and commercial organic waste collection and processing, edible food recovery, public education and outreach, recordkeeping and reporting, and generator inspection and enforcement programs. Organic wastes targeted by SB 1383 for residential customers include yard clippings, food waste, and food soiled paper products like pizza boxes and coffee filters.

The term of the current agreement between the City and Republic Services for residential waste collection services and recycling began on January 1, 2018 and does not include an organics collection program. City staff and Republic Services therefore negotiated the proposed amendment to the current agreement for implementation of the residential organics program.

Service Changes in the Proposed Amendment

When the program begins in July 2022 the current green waste cart will be referred to as the organics cart and residents will place yard clippings, food waste and food-soiled paper products together in the cart for collection. The organics cart will be collected weekly as opposed to the current biweekly collection schedule for the green waste cart. The garbage cart will continue to be collected weekly and the recycling cart will continue to be collected biweekly

Rate Impacts in the Proposed Amendment

The implementation of the residential organics program requires rate adjustments to cover costs for additional trucks and drivers for weekly organics collection, increased transportation and processing costs for organics, and public education, route monitoring, auditing, and reporting programs required by SB 1383.

On November 1, 2021, the City Council directed staff to proceed with a 21.5% rate adjustment for the implementation of the residential organics program. On December 15, 2021, City staff mailed a notice to residential solid waste customers showing the proposed rates and instructions on submitting a written protest. In accordance with State Law (Proposition 218), the proposed rate increase may not proceed if a majority of the rate payers had submitted a written protest. On February 7, 2022, the City Clerk reported that 540 customers submitted protests, meaning the proposed rate adjustment may proceed. The City Council also conducted a public hearing on February 7, 2022, as required by State law, to provide an opportunity for rate payers to comment on the proposed rate adjustments. The City Council adopted Resolution No. 16-2022 at the conclusion of the public hearing, which approved the rate schedule shown in Table 1 and directed staff to prepare the first amendment to the Republic Services contract for implementation of the residential organics program.

Table 1

Annual Residential Solid Waste Rate Adjustments for 2022 through 2024

Year	32-gallon garbage cart	64-gallon garbage cart	96-gallon garbage cart
Current	$23.34	$27.59	$36.42
July 1, 2022	$28.32	$33.52	$44.30
July 1, 2023	$29.17	$34.52	$45.63
July 1, 2024	$30.04	$35.56	$47.00

FISCAL IMPACT

There is no impact to the General Fund. Republic Services currently pays a 10% franchise fee on gross collected revenue for the provision of residential solid waste services in Rancho Cordova. In FY 2020/21 the City received approximately $682,000 in franchise fees through this contract, which funds a portion of the Public Works operating budget. On November 1, 2021, the City Council directed staff to reduce the franchise fee rate from 10% to 8%, which will reduce annual franchise fee revenue received by the City by an estimated $71,000, to $611,000 per year.

ATTACHMENTS

1. Resolution
2. Contract No. 56-2017-1

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 AMENDMENT NO. 56-2017-1 WITH ALLIED WASTE SERVICES ON NORTH AMERICA (DBA REPUBLIC SERVICES) FOR IMPLEMENTATION OF THE RESIDENTIAL FOOD WASTE COLLECTION PROGRAM

WHEREAS, in September 2016, Governor Brown signed the Short-Lived Climate Pollutant Reduction Act (SB 1383) into law, requiring local jurisdictions in California to implement a variety of programs intended to divert organic waste away from landfill disposal; and

WHEREAS, methane is a potent greenhouse gas emitted from landfills as a byproduct of organic waste decomposition; and

WHEREAS, the primary intent of SB 1383 is to mitigate climate change by directing local governments to implement programs to reduce landfilling of organic waste; and

WHEREAS, the residential food waste collection and processing program scheduled to begin in July 2022 satisfies one of the local government requirements in SB 1383; and

WHEREAS, on January 1, 2018, the City and Republic Services entered into a seven-year Collection Service and Street Sweeping Contract (Contract Number 56-2017); and

WHEREAS, City and Republic staff began developing the program design and negotiating rate adjustments for the residential food waste collection and processing program when the SB 1383 regulations were finalized by CalRecycle in November 2020; and

WHEREAS, on November 1, 2021, the City Council directed staff to proceed with a 21.5% adjustment to residential solid waste rates effective on July 1, 2022, for implementation of the residential food waste collection program; and

WHEREAS, on February 7, 2022, the City Council adopted Resolution No. 16-2022, approving the rate schedule for the period from July 1, 2022 through December 30, 2024, and directing staff to prepare the first amendment to the Republic Services contract for Council approval to allow for implementation of the residential food waste collection program.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does authorize the City Manager to execute Amendment Contract No. 56-2017-1 with Republic Services 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 March 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

2022 AMENDED AND RESTATED COLLECTION SERVICE AND STREET SWEEPING SERVICE CONTRACT

Executed Between The

City of Rancho Cordova

And

Allied Waste Services of North America, LLC

March 21, 2022

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CITY OF RANCHO CORDOVA

This Contract made and entered into this **21st** day of **March**, 2022, by and between the City of Rancho Cordova, a municipal corporation of the State of California, hereinafter referred to as "CITY" and Allied Waste Services of North America, LLC, a Delaware corporation, subsidiary of Republic Services, Inc., hereinafter referred to as "CONTRACTOR".

Now, therefore, in consideration of the mutual covenants, Contracts and consideration contained herein, CITY and CONTRACTOR hereby agree as hereinafter set forth:

ARTICLE 1. Definitions

For the purpose of this Collection Services and Street Sweeping Contract, hereinafter referred to as "Contract", the definitions contained in this Article shall apply unless otherwise specifically stated. If a word or phrase is not defined in this Article, the definition of such word or phrase as contained in the appropriate chapter of the Rancho Cordova Municipal Code shall control. When not inconsistent with the context, words used in the present tense include the future, words in the plural include the singular, and words in the singular include the plural. Use of the masculine gender shall include the feminine gender.

1.01 Applicable Law. All Federal, State, County, and local laws, regulations, rules, orders, judgments, decrees, rulings, permits, approvals, or other requirement of any governmental entity or regulatory or quasi-regulatory authority having jurisdiction over an aspect of the Collection services, including judicial interpretations thereof, that are in force on the Effective Date including without limitation the Act and all regulations of CalRecycle, and as may be enacted, issued or amended thereafter, until termination or expiration of this Contract.

1.02 Approved Sharps Container. A receptacle that is approved by the CITY, for the Collection of Sharps.

1.03 Bin. A metal or plastic container, with a capacity of one (1) cubic yard up to and including eight (8) cubic yards, designed or intended to be mechanically dumped into a loader packer type truck, that is approved for Collection Services by City. Bins may also include compactors that are owned by City Service Units by which the City Collection Service occurs.

1.04 Biohazardous or Biomedical Waste. Any waste which may cause disease or reasonably be suspected of harboring pathogenic organisms; included are wastes resulting from the operation of medical clinics, hospitals, and other facilities processing wastes which may consist of, but are not limited to, human and animal parts, contaminated bandages, pathological specimens, hypodermic needles, Sharps, contaminated clothing and surgical gloves.

1.05 Blue Container. A Container colored as follows: (a) a lid shall be blue, or (b) the body shall be blue and the lid shall be blue. Hardware such as hinges and wheels may be any color.

1.06 Brown Goods. Electronic equipment such as stereos, televisions, computers, monitors, VCR's and other similar items.

1.07 CalRecycle. The State of California Department of Resources Recycling and Recovery.

1.08 Cart. A heavy plastic receptacle with an approximate capacity of at least thirty-two (32) and not more than one-hundred (100) gallons, having a hinged tight-fitting lid and wheels, that is approved by the Contract Administrator for use by Service Recipients for Collection Services under this Contract.

1.09 CERCLA. The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9600 *et. Seq).*

1.10 Change In Law. Change in Law means any of the following events or conditions which has material and adverse effects on the performance by the parties of their respective obligations under this Agreement (except for payment obligations), or on the siting, design, permitting, acquisition, construction, equipping, financing, ownership, possession, management operation or maintenance of the operating assets or providing the franchise service or other matters to which Applicable Law applies:

A. the enactment, adoption, promulgation, issuance, modification, or written change of or in Applicable Law, including but not limited to new or increased fees and charges imposed by the State of California, U.S. Federal government, City of Rancho Cordova, or Sacramento County, directly related to the collection, handling, processing, recycling or disposal of Solid Waste, or the enactment, adoption, promulgation, issuance, modification, or written change in administrative or judicial interpretation on or after Effective Date of any Applicable Law. Change in Law explicitly precludes any changes in laws or regulations promulgated by any government agency or regulatory body outside of the United States' jurisdiction;

B. the order or judgment of any U.S. Federal Governmental Body, California State Government Body, City Government Body, or Sacramento County Government Body, on or after the Effective Date, to the extent such order or judgment is not the result of willful or negligent action, error or omission or lack of reasonable diligence of the City or of the Contractor, whichever is asserting the occurrence of a Change in Law; provided, however, that the contesting in good faith or the failure in good faith to contest any such order or judgment shall not constitute or be construed as such a willful or negligent action, error or omission or lack of reasonable diligence; or

C. the denial of an application for, delay in the review, issuance or renewal of, suspension, termination, interruption or imposition of a new or more stringent

condition in connection with the issuance, renewal or failure of issuance or renewal on or after the Effective Date of any Legal Entitlement to the extent that such denial, delay, suspension, termination, interruption, imposition or failure materially and adversely interferes with the performance of this Agreement, of and to the extent that such denial, delay, suspension, termination, interruption, imposition or failure is not the result of willful or negligent action, error or omission or a lack of reasonable diligence of the City or of the Contractor, whichever is asserting the occurrence of a Change of Law; provided, however, that the contesting in good faith or failure in good faith to contest any such denial, delay, suspension, termination, interruption, imposition or failure shall not be construed as such a willful or negligent action, error or omission or lack of reasonable diligence.

1.11 CITY. The City of Rancho Cordova, California.

1.12 City Collection Service. City Garbage Collection Service, City Recycling Collection Service, City Organic Recyclable Material Collection Service, City Container Service, City Event Service, and Large Item Collection Service.

1.13 City Container Service. The Collection of Garbage and Recyclables from public containers distributed and maintained by the CITY and the transport and delivery of the collected materials to the appropriate facility.

1.14 City Event Service. The Collection of Garbage, Recyclables, and Organic Recyclable Materials, and the provision of other services as set forth in this Contract, at CITY-sponsored or supported events.

1.15 City Service Unit. Those CITY properties as set forth in **Exhibit 3**, “City Service Units”, which is attached to and included in this Contract.

1.16 City Recycling Collection Service. The Collection of Recyclable Materials, by the CONTRACTOR, including dry cell household batteries when set out in the place and manner agreed to between the CITY and the CONTRACTOR, from City Service Units in the Service Area and the delivery of those Recyclable Materials to a Materials Recycling Facility.

1.17 City Garbage. Garbage resulting from the normal activities of a City Service Unit. City Garbage must be generated by and at the City Service Unit wherein the City Garbage is Collected and does not include items defined herein as Exempt Waste.

1.18 City Garbage Collection Service. The Collection of City Garbage by the CONTRACTOR, from City Service Units in the Service Area, and the delivery of that City Garbage to a Disposal Facility.

1.19 City Waste. City Garbage, Recyclables, Organic Recyclable Material, and Large Items resulting from the normal activities of a City Service Unit. City Waste must be generated by and at the City Service Unit wherein the City Waste is Collected and does not include items defined herein as Exempt Waste.

1.20 Collection. The process whereby Residential Waste, City Waste, Recyclable Materials and other materials are removed and transported to a Disposal Facility, Organic Recyclable Material Processing Facility, Materials Recycling Facility or other facility as appropriate.

1.21 Collection Services. Residential Collection Service, City Collection Service, Special Clean-up Service, and Debris Collection Service.

1.22 Commercial Streets. Commercial Streets include larger arterial and major collectors in the Service District, as designated by the Contract Administrator. Commercial Streets shall be swept twice per month between the hours of 10:00 p.m. and 6:00 a.m. on designated sweeping days. Commercial Streets are shown on the map included as **Exhibit 2.**

1.23 Construction and Demolition Debris. Used or discarded materials resulting from construction, remodeling, repair or demolition operations on any pavement, house, commercial building or other structure and such other materials as may be removed during the normal cleanup process of such construction, remodeling, repair, or demolition operations.

1.24 Container. Any Cart or Bin.

1.25 Contamination Charge. Additional charge to Service Recipient for Recycling Carts or Organic Recyclable Material Carts that are visibly contaminated and therefore Collected and disposed of as Garbage.

1.26 Contract. The written document and all amendments thereto, between the CITY and the CONTRACTOR, governing the provision of Collection Services and Street Sweeping Services as provided herein.

1.27 Contract Administrator. That person, or their designee, designated by the CITY to administer and monitor the provisions of this Contract.

1.28 Contract Year. Each twelve (12) month period from January 1 to December 31.

1.29 CONTRACTOR. That person or entity that has obtained from the CITY a Contract to provide Collection Services and Street Sweeping Services as set forth herein.

1.30 County. Sacramento County, California.

1.31 Curb Mile. The distance of one mile along one side of a street as measured by the CITY along the center line of the street. Distances along Median Islands are considered Curb Miles.

1.32 Debris Collection Service. The Collection and appropriate disposal or processing of abandoned or discarded Large Items and other materials by the CONTRACTOR within the Service Area. Such Collection by the CONTRACTOR shall be limited to the equivalent of two thousand (2,000) cubic yards in any Contract Year.

1.33 Deceased Wildlife. Dead animals including squirrel or other rodent, bird, raccoon, possum, coyote, deer or other non-domestic animals, as deemed appropriate by the CITY, that are found on or near City right-of-ways.

1.34 Disposal Facility. The facility designated by CONTRACTOR for the disposal, or processing as appropriate, of Residential Garbage, City Garbage and other materials as appropriate and acceptable, which has obtained, and maintains during the term of this Contract, valid permit(s) to accept, process or dispose of Residential Solid Waste , City Solid Waste and such other materials as may be delivered by CONTRACTOR under the terms of this Contract.

1.35 Dwelling Unit. An individual living unit in a dwelling unit as defined in Government Code section 66411.7(j)(2), single-family house, condominium, townhouse, mobile home, duplex (two units), triplex (three units), fourplex (four units) or building of four (4) or less total individual living units intended for, or capable of being utilized for, residential living other than a Hotel or Motel.

1.36 Exempt Waste. Biohazardous or Biomedical Waste, Hazardous Waste, Sludge, Stable Matter, Green Waste or lumber that is more than five (5) feet in length in its longest dimension or two (2) feet in diameter, automobiles, automobile parts, boats, boat parts, boat trailers, internal combustion engines, lead-acid batteries, and those wastes under the control of the Nuclear Regulatory Commission. Exempt Waste does not include Used Oil, Used Oil Filters, dry cell household batteries or Sharps when placed for Collection as set forth in this Contract or as otherwise directed by the CITY.

1.37 Food Waste. “Food waste” means food scraps and trimmings and other putrescible waste that results from food production, preparation, storage, consumption, or handling. Food waste includes, but is not limited to, meat, fish and dairy waste, fruit and vegetable waste, grain waste, and compostable food soiled paper products.

1.38 Food Waste Collection Service. The collection, transportation, processing, and marketing of Food Waste, and the Disposal of all Residuals.

1.39 Garbage. All putrescible and non-putrescible solid, semi-solid, and associated liquid waste, as defined in California Public Resources Code section 40191, attributed to normal activities of a Service Unit. Garbage must be generated by and at the Service Unit wherein the Garbage is Collected. Garbage does not include those items defined herein as Exempt Waste.

1.40 Gray Container. A Container colored as follows: (a) the lid shall be gray or black, or (b) the body shall be gray or black and the lid shall be gray or black. Hardware such as hinges and wheels may be any color.

1.41 Green Container. A Container colored as follows: (a) the lid shall be green, or (b) the body shall be green and the lid shall be green. Hardware such as hinges and wheels may be any color.

1.42 Green Waste. Any vegetative matter resulting from normal yard and landscaping maintenance that is not more than five (5) feet in its longest dimension or six (6) inches in diameter or weighs no more than fifty (50) pounds. Green Waste includes plant debris, such as Palm, Yucca and Cactus, grass clippings, leaves, pruning, weeds, branches, brush, Christmas trees, and other forms of organic waste and must be generated by and at the Residential or City Service Unit wherein the Green Waste is Collected. Green Waste does not include items herein defined as Exempt Waste.

1.43 Green Waste Collection Service. The Collection of all Green Waste from Residential or City Service Units in the Service Area and the delivery of that Green Waste to a Green Waste Processing Facility.

1.44 Gross Revenues. All monetary amounts actually collected or received by Contractor for the provision of Collection Services pursuant to this Contract. Gross Revenue shall include all receipts from Service Recipients including late charges, contamination charges, etc., including franchise fees. The term Gross Revenues, for purposes of calculating Franchise Fees does not include any revenues generated from Street Sweeping Fees, the sale of Recyclable Material, compost product or energy, grants, cash awards, State of California Department of Conservation payments or rebates resulting from the performance of this Agreement.

1.45 Hauler Route. The designated weekly itinerary or sequence of stops scheduled to be performed by one collection vehicle providing regularly scheduled Garbage, Recyclable Material, or Organic Recyclable Material collection services (not on-call or Bulky Item/Abandoned Waste) within the Contractor's collection service area under the Contract

1.46 Hazardous Waste. Any material which is defined as a hazardous waste under California or United States law, or any regulations promulgated pursuant to such law, as such law or regulations may be amended from time to time except such materials as may be defined herein as Brown Goods.

1.47 High Diversion Organic Waste Processing Facility. A facility that is in compliance with the reporting requirements of 14 CCR Section 18815.5(d) and meets or exceeds an annual average mixed waste organic content recovery rate of 50 percent between January 1, 2022 and December 31, 2024, and 75 percent after January 1, 2025 as calculated pursuant to 14 CCR Section 19925.5(e) for organic waste received from the "Mixed Waste Organic Collection Stream" as defined in 14 CCR Section 17402(a)(11.5); or, as otherwise defined in 14 CCR Section 18982(a)(33).

1.48 Household Hazardous Waste. Any Hazardous Waste generated incidental to owning or maintaining a Residential Service Unit, excluding any Hazardous Waste generated in the course of operation of a business concern at a Residential Service Unit, in accordance with Section 25218.1 of the California Health and Safety Code.

1.49 Hotel or Motel. A structure or building unit(s) capable of being utilized for residential living where such unit or a group of such units is regularly rented to transients

or held out or advertised to the public as a place regularly rented to transients for periods of seven (7) days or less. To meet this definition, the Hotel or Motel must be licensed to operate as such.

1.50 Kitchen Food Waste Pail. A receptacle with a rated capacity not exceeding two and one-half (2.5) gallons, made in a material approved by the City, having a hinged lid, suitable for use in a Residential Service Unit for temporary storage of Organic Recyclable Material that is approved for such purpose by the CITY.

1.51 Large Green Waste. Oversized Green Waste such as tree trunks and branches with a diameter of not less than six (6) inches and not more than two (2) feet and a length of not more than five (5) feet in its longest dimension, which are attributed to the normal activities of a Residential Service Unit or City Service Unit. Large Green Waste must be generated by and at the Residential Service Unit or City Service Unit wherein the Large Green Waste is Collected.

1.52 Large Items. Those materials including, but not limited to, furniture, carpets, mattresses, White Goods, Brown Goods, clothing, tires, Large Green Waste, or some combination of such items which are attributed to the normal activities of a Residential Service Unit or City Service Unit, with a total maximum capacity of ten (10) cubic yards. Large Items must be generated by and at the Residential Service Unit or City Service Unit wherein the Large Items are Collected. Large Items do not include items herein defined as Exempt Waste.

1.53 Large Item Collection Service. The periodic on-call Collection of Large Items, by the CONTRACTOR, from Residential Service Units or City Service Units in the Service Area, and the delivery of those Large Items to a City-Approved Materials Recycling Facility or such other facility as may be appropriate under the terms of this Contract. Large Item Collection Service does not include the Collection of Large Items through the use of Roll-Off Containers.

1.54 Materials Recovery Facility ("MRF"). Any facility, designated by the CONTRACTOR, which is designed, operated, and legally permitted for the purpose of receiving, sorting, processing, storing, or preparing Recyclable Materials for sale or recycling, and which has obtained and maintains during the term of this Contract, valid permit(s) to accept, process and store Recyclable Materials and such other materials as may be delivered by CONTRACTOR under the terms of this Contract.

1.55 Median Island. A dividing area, normally at curb height, between opposing directions of traffic not normally located along streets.

1.56 Non-Collection Notice. A form developed and used by the CONTRACTOR, as approved by the CITY, to notify Service Recipients of the reason for non-collection of materials set out by the Service Recipient for Collection by CONTRACTOR pursuant to this Contract.

1.57 Organic Recyclable Material or "Organics". Organics means waste comprised of material originated from living organisms and their metabolic waste products,

including Food Waste, Green Waste, landscape and pruning waste, clean unpainted/untreated wood (with no nails, wire, etc.), paper products, and printing and writing paper, but excluding textiles and carpets, manure, biosolids, digestate, sludges, non-compostable paper, Construction & Demolition Debris, and Hazardous Waste. No material shall be considered Organic Recyclable Materials unless it has been segregated by the Service Recipient for separate Organic Recyclable Material collection.

1.58 Organic Recyclable Material Collection Service. The Collection of all Organic Recyclable Material from Residential and City Service Units in the Service Area and the delivery of that Organic Recyclable Material to an Organic Recyclable Material Processing Facility. These materials will be as defined by the CITY from time to time. Organic Recyclable Materials being Collected at the time of Contract execution include: Items that defined as “Food Waste” & “Green Waste”; compostable bags; paper coffee filters; food soiled paper; food soiled cardboard paper coffee cups and cup sleeves; wooden chopsticks, coffee stick stirrers, popsicle sticks, ice cream spoons, skewers, and other uncoated or untreated wooden utensils; brown paper bags; food soiled paper towels; food soiled newspaper; uncoated paper and cardboard “to go” containers (no metal or plastic); cloth tea bags (plastic free); cardboard or paper egg cartons / cardboard berry baskets; compostable utensils and plates (excluding compostable plastic utensils or plates); wine corks (cork); toothpicks (wood); paper cupcake or muffin wrappers; and paper plates/paper straws with no wax lining. Non acceptable materials in the Green Container include: any glass; any metal; any plastic; any hazardous waste or hazardous substances; plastic coated “to go” containers; plastic chopsticks; non-food soiled paper; non-food soiled cardboard; human, animal and pet waste; polystyrene (Styrofoam); treated wood waste; digestate and sludges; manure; biosolids; organic textiles & carpet; biodegradable plastic; and wax coated containers such as milk and juice cartons or -coated paper cups.

1.59 Organic Recyclable Material Processing Facility. Any facility, designated by Contractor, which is designed, operated and legally permitted for the purpose of receiving and processing Organic Recyclable Material and Large Green Material which has obtained, and maintains during the term of this Contract, valid permit(s) to accept and process of Organic Recyclable Material, Large Green Material and such other materials as may be delivered by CONTRACTOR under the terms of this Contract.

1.60 Prohibited Container Contaminants.

1.60.1 Non-Organic Recyclable Material placed in the Green Container, including but not limited to, textiles and carpets, manure, biosolids, digestate, sludges, non-compostable paper, Construction and Demolition Debris, and Hazardous Waste.

1.60.2 Material placed in the Gray Container that is specifically identified under the Contract for collection in the Green Container or Blue Container;

1.60.3 Non-Recyclable Material placed in the Blue Container. Paper products and printing and writing paper may be considered acceptable and not considered Prohibited Container Contaminants if they are placed in the Blue Container.

1.61 Rebuilt Vehicle. For purposes of this Contract, “rebuilt” means, at a minimum, replacement of worn parts and reconditioning or replacement of hydraulic systems, transmissions, differentials, electrical systems, engines, and brake systems. In addition, the Rebuilt Vehicle must be repainted and its tires must have at least eighty-five percent (85%) of tread remaining.

1.62 Recyclable Materials. Those materials that have been source separated from Garbage, Green Waste or Organic Recyclable Materials that are to be delivered to and processed at a MRF for diversion from landfill disposal. These materials will be as defined by the CITY from time to time. Recyclable Materials being Collected at the time of Contract execution include: newsprint (including inserts); mixed paper (including magazines, catalogs, envelopes, junk mail, corrugated cardboard, Kraft brown bags and paper, paperboard, paper egg cartons, and telephone books); glass containers; aluminum beverage containers; small scrap and cast aluminum (not exceeding forty (40) pounds in weight nor two (2) feet in any dimension for any single item); steel including ”tin” cans and small scrap (not exceeding forty (40) pounds in weight nor two (2) feet in any dimension for any single item); bimetal containers; mixed plastics such as plastic bags, plastic film, plastic containers (1-7), and bottles including containers made of HDPE, LDPE, PET, or PVC; aseptic containers; polystyrene; and dry cell household batteries when set out for Collection in the manner prescribed herein; and those materials added by the CONTRACTOR or CITY from time to time.

1.63 Residential Collection Service. Residential Garbage Collection Service, Residential Recycling Collection Service, Organic Recyclable Material Collection Service, Large Item Collection Service, Sharps Collection Service, and Residential Used Oil Collection Service.

1.64 Residential Recycling Collection Service. The Collection of Recyclable Materials by the CONTRACTOR from Residential Service Units, including dry cell household batteries when set out by the Service Recipient in heavy duty plastic bags and placed on the Blue Cart, in the Service Area and the delivery of those Recyclable Materials to a Materials Recycling Facility.

1.65 Residential Service Unit. Any Dwelling Unit in the Service Area utilizing a Gray Container, or any combination of Dwelling Units sharing Gray Container, for the accumulation and set out of Residential Garbage.

1.66 Residential Garbage. Garbage resulting from the normal activities of a Residential Service Unit. Residential Garbage must be generated by and at the Residential Service Unit wherein the Residential Garbage is Collected and does not include items defined herein as Exempt Waste.

1.67 Residential Garbage Collection Service. The Collection of Residential Garbage, by the CONTRACTOR, from Residential Service Units in the Service Area and the delivery of that Residential Garbage to a Disposal Facility.

1.68 Residential Street. Residential Streets include smaller local or neighborhood streets within the Service District, as designated by the CITY Representative. Residential Streets shall be swept between the hours of 6:00 a.m. and 4:00 p.m. on designated sweeping days. Residential Streets shall be swept once per month from January through October, and twice per month in November and December, or as directed by the City Administrator. Residential Streets are shown on the map included as Exhibit 2.

1.69 Residential Used Oil Collection Service. The Collection of Used Oil in Used Oil Containers and Used Oil Filters in Used Oil Filter Containers, by the CONTRACTOR, from all Residential Service Units in the Service Area utilizing Used Oil and Filter Containers for the accumulation and set-out of Used Oil and Used Oil Filters and the appropriate disposition of the Used Oil and Used Oil Filters in accordance with the requirements of this Contract.

1.70 Residential Waste. Residential Garbage, Organic Recyclable Material, Recyclables, Large Items, Used Oil, and Used Oil Filters resulting from the normal activities of a Residential Service Unit. Residential Waste must be generated by and at the Residential Service Unit wherein the Residential Waste is Collected and does not include items defined herein as Exempt Waste.

1.71 Residual or Residuals. Residual or Residuals means waste material remaining after the processing of Organic Recyclable Material or Recyclable Material at any facility designed, operated, and legally permitted for the purpose of receiving and processing Organic Recyclable Material or Recyclable Material that is sent to a Disposal Facility for disposal.

1.72 Roll-Off Collection Service. The Collection of Roll-Off Containers containing Construction and Demolition Debris.

1.73 Roll-Off Container. A metal container with a capacity of twenty (20) or more cubic yards that is normally loaded onto a motor vehicle and transported to an appropriate facility.

1.74 Route Review. A visual inspection of contents within Containers along a Hauler Route, which may include mechanical inspection methods such as use of cameras, for the purpose of identifying Prohibited Container Contaminants.

1.75 SB 1383. Chapter 13.1 (commencing with Section 42652) of Part 3 of Division 30 of the California Public Resources Code, as it may be amended and as implemented by the regulations of CalRecycle, together with Sections 39730.5 through 39730.8 of the California Health and Safety Code, as they may be amended.

1.76 Service Area. The area within the corporate limits of the City of Rancho Cordova.

1.77 Service Unit. City Service Units and Residential Service Units.

1.78 Service Recipient. An individual receiving Collection Services.

1.79 Sharps. Hypodermic needles, pen needles, intravenous needles, lancets, and other devices that are used to penetrate the skin for the delivery of medications. Sharps must be generated by the Service Recipient and at the Residential Service Unit wherein the Sharps are Collected.

1.80 Sharps Collection Service. The on-call Collection of Sharps from Residential Service Units when such Sharps are generated by the Service Recipient at such Residential Service Unit and the appropriate disposal of the Sharps.

1.81 Sludge. The accumulated solids, residues, and precipitates generated as a result of waste treatment or processing, including wastewater treatment, water supply treatment, or operation of an air pollution control facility, and mixed liquids and solids pumped from septic tanks, grease traps, privies, or similar disposal objects or any other such waste having similar characteristics or effects

1.82 Solid Waste. The materials described in Public Resources Code section 40191, including Garbage, Recyclable Materials, Organic Recyclable Materials, Construction and Demolition Debris, and Large Items set out for separate collection for the purposes of recycling and that are not landfilled.

1.83 Special Clean-Up Service. The periodic Collection of Large Items and other materials using Roll-Off Containers by the CONTRACTOR resulting from CITY sponsored special clean-up program events. Such Collection by the CONTRACTOR shall be limited to the equivalent of twelve hundred (1,200) cubic yards in any Contract Year.

1.84 Street Sweeping Service. The sweeping of Residential Streets and Commercial Streets, and the transportation and disposal of Sweep Waste.

1.85 Stable Matter. Manure and other waste matter normally accumulated in stables or in livestock or poultry enclosures.

1.86 Sweep Waste. The accumulated waste materials generated as a result of performing Street Sweeping Services. Sweep Waste includes, but is not limited to, deposits of loose dirt, rocks, glass, cans, small debris, leaves, sticks, papers, yard trimmings residue or any like materials that can be removed by Street Sweeping operations.

1.87 Sweeper Route. A daily path or itinerary followed by a sweeper that has been clearly divided into Residential and Commercial sections.

1.88 Traffic Island. Islands, some of which have handicapped access cut-outs, which are usually found at street intersections whose primary function is to protect and aid pedestrians from vehicles.

1.89 Used Oil. Any oil that has been refined from crude oil or has been synthetically produced, and is no longer useful to the Service Recipient because of extended storage, spillage or contamination with non-hazardous impurities such as dirt or water; or has been used and as a result of such use has been contaminated with physical or chemical impurities. Used Oil must be generated by and at the Residential Service Unit wherein the Used Oil is collected. Used Oil does not include transmission fluid.

1.90 Used Oil Container. A plain co-poly container provided by the CONTRACTOR for the accumulation of Used Oil that is at least four (4) quarts in capacity, leak-proof, has a screw-on lid and has a label designating it for use as a Used Oil Container.

1.91 Used Oil Filter. Any oil filter that is no longer useful to the Service Recipient because of extended storage, spillage or contamination with non-hazardous impurities such as dirt or water, or has been used and as a result of such use has been contaminated with physical or chemical impurities. Used Oil Filters must be generated by and at the Residential Service Unit wherein the Used Oil Filter is collected.

1.92 Used Oil Filter Container. A six (6) mil poly bag with double track seal with dimensions of at least fourteen and one-half (14.5) inches by eight (8) inches with a one and one-quarter (1¼) inch diameter hole above the seal, provided by the CONTRACTOR for the accumulation of Used Oil Filters that has a label designating it for use as a Used Oil Filter Container.

1.93 White Goods. Inoperative and discarded refrigerators, ranges, water heaters, freezers, and other similar household appliances.

1.94 Work Day. Any day, Monday through Friday that is not a holiday as set forth in Section 3.08 of this Contract.

ARTICLE 2. Term of Contract

2.01 Term. The term of this Contract shall terminate at 11:59 p.m. on December 31, 2024. **CONTRACTOR shall commence performance of weekly Food Waste Collection Services to all Service Units pursuant to this Contract no later than Monday, July 4, 2022.** Contractor shall not be responsible for performing Food Waste Collection Services until July 4, 2022.

2.02 Other Provisions. The CITY may, at the end of the Contract term, as appropriate, either renegotiate the terms and conditions of the Contract with the current CONTRACTOR or request proposals from qualified contractors to provide Collection Services.

ARTICLE 3. Services Provided by the Contractor

3.01 Grant of Exclusive Contract. Except as otherwise provided in this Contract, the CONTRACTOR is herein granted an exclusive Contract to provide Collection Services

and Street Sweeping Services within the Service Area. No other Solid Waste services, including Roll-Off Collection Services, shall be exclusive to the CONTRACTOR.

3.02 Sale or Donation of Recyclable Materials by Service Recipients. Nothing in this Contract shall preclude a Service Recipient from transporting, selling or donating their Recyclable Materials to a private or public entity provided that such entity does not charge the Service Recipient a fee or service charge of any type related to the sale or donation of the Recyclable Material.

3.03 Responsibility for Service Billing and Collection. The CONTRACTOR shall be responsible for the billing and collection of payments for Collection Services and for the Street Sweeping Fee within the Service Area and the CITY will assist in the collection of fees on delinquent accounts pursuant to Section 4.01.3.

3.04 Reimbursement Fee. CONTRACTOR reimbursed the CITY in the amount of one hundred thousand dollars ($100,000), which CONTRACTOR and CITY agree represents a reasonable reimbursement to CITY for staff, legal and consulting costs incurred by the CITY in the negotiation of the Contract. The reimbursement fee was a one-time payment to the City, paid before January 31, 2018.

3.05 CONTRACTOR'S Payment to CITY. CONTRACTOR shall make payment to the CITY of a franchise fee as specified in this Section 3.05. Payment to the CITY shall be due on the fifteenth (15^{th}) day of the month following the month the Gross Revenues are collected. Each such payment shall be accompanied by an accounting, which sets forth CONTRACTOR'S Gross Revenue collected during the preceding month.

3.05.1 The franchise fee shall be a percentage of CONTRACTOR'S Gross Revenues collected each month under the terms of this Contract. Revenue received by the CONTRACTOR from the sale of recyclable materials and revenues from Street Sweeping Fees shall not be considered as Gross Revenues for purposes of the calculation of franchise fees. The franchise fee percentage shall be ten percent (10%) through June 30, 2022. Beginning July 1, 2022, the franchise fee percentage shall be reduced to eight percent (8%) for the remaining term of this Contract unless adjusted by CITY. Should the City change the franchise fee at any point during this Contract, the CONTRACTOR has the right to adjust the service rates to account for that change. The City must approve any changes to the service rates before the adjusted rates can be charged to the Service Recipients.

3.05.2 No acceptance by CITY of any payment shall be construed as an accord that the amount is in fact the correct amount, nor shall such acceptance of payment be construed as a release of any claim CITY may have against CONTRACTOR for any additional sums payable under the provisions of this Contract. All amounts paid shall be subject to independent audit and recalculation by CITY. If, after the audit, such recalculation indicates an underpayment of more than five percent (5%) of the actual amount owed, CONTRACTOR shall pay to CITY the amount of the underpayment and shall reimburse CITY for all reasonable costs and expenses incurred in connection with

the audit and recalculation, within ten (10) days of receipt of written notice from CITY that such is the case. If, after audit, such recalculation indicates an underpayment of five percent (5%) or less or an overpayment, CITY shall notify the Contractor in writing of the amount of the overpayment or underpayment, adjusted for all reasonable costs and expenses incurred in connection with the audit and recalculation. CONTRACTOR may adjust the amount of the next franchise payment due following receipt of such notice by the amount specified therein.

3.06 Service Standards. CONTRACTOR shall perform all Collection Services and Street Sweeping Services under this Contract in a thorough and professional manner. Collection Services described in this Contract shall be performed regardless of weather conditions or difficulty of Collection. Street Sweeping Services shall be performed regardless of weather conditions except when CITY Administrator temporarily removes streets from the schedule due to inclement weather pursuant to Section 15.15.

3.07 Labor and Equipment. CONTRACTOR shall provide and maintain all labor, equipment, tools, facilities, and personnel supervision required for the performance of CONTRACTOR'S obligations under this Contract. CONTRACTOR shall at all times have sufficient backup equipment and labor to fulfill CONTRACTOR'S obligations under this Contract. No compensation for CONTRACTOR'S services or for CONTRACTOR'S supply of labor, equipment, tools, facilities or supervision shall be provided or paid to CONTRACTOR by CITY or by any Service Recipient except as expressly provided by this Contract.

3.08 Holiday Service. The CITY observes Thanksgiving Day, December 25, and January 1 as legal holidays. CONTRACTOR shall not be required to provide Collection Services or Street Sweeping Service, or to maintain office hours on the designated holidays. In any week in which one of these holidays falls on a week day, Residential and City Collection Services, as appropriate, for the holiday and each Work Day thereafter will be delayed one Work Day for the remainder of the week with normally scheduled Friday Collection Services being performed on Saturday and with no Street Sweeping Service being performed on Saturday or Sunday.

3.09 Inspections. The CITY shall have the right to inspect the CONTRACTOR'S facilities, Street Sweeping vehicles and Collection vehicles, and their contents, at any time while operating inside or outside the CITY.

3.10 Commingling of Materials.

3.10.1 Residential and City Waste and Recyclable Material. CONTRACTOR shall not at any time commingle Residential or City Waste Collected pursuant to this Contract, with any Recyclable Material separated for Collection pursuant to this Contract, without the express prior written authorization of the Contract Administrator.

3.10.2 Residential and City Waste Collected in Rancho Cordova. CONTRACTOR shall not at any time during Collection and before transfer and/or delivery

to the Material Recovery Facility and/or Disposal Facility commingle any Residential or City Waste, Collected pursuant to this Contract, with any other material Collected by CONTRACTOR inside or outside the City of Rancho Cordova, without the express prior written authorization of the Contract Administrator.

3.10.3 Recyclable Materials. CONTRACTOR shall not at any time during collection and before transfer and/or delivery to the Material Recovery Facility, Disposal Facility, Organic Recyclable Material processing facility, Composting facility and/or other properly permitted and legally operated processing facility, commingle Recyclable Materials Collected pursuant to this Contract, with any other material Collected by CONTRACTOR inside or outside the City of Rancho Cordova, without the express prior written authorization of the Contract Administrator

3.11 Spillage and Litter. The CONTRACTOR shall not litter premises in the process of providing Collection Services or Street Sweeping Services or while its vehicles are on the road. The CONTRACTOR shall transport all materials Collected under the terms of this Contract in such a manner as to prevent the spilling or blowing of such materials from the CONTRACTOR'S vehicle. The CONTRACTOR shall exercise all reasonable care and diligence in providing Collection Services so as to prevent spilling or dropping of Solid Waste and shall immediately, at the time of occurrence, clean up such spilled or dropped Solid Waste. CONTRACTOR shall cause all Sweep Waste to be transported in such a manner as to prevent the spilling or blowing of waste from the transporting vehicle. CONTRACTOR shall exercise all reasonable care and diligence in providing Street Sweeping Services so as to prevent spilling or dropping of Sweep Waste during collection activity and shall immediately, at the time of occurrence, clean up such spilled Sweep Waste.

3.11.1 The CONTRACTOR shall not be responsible for cleaning up unsanitary conditions caused by the carelessness of the Service Recipient; however, the CONTRACTOR shall clean up any materials or residue that are spilled or scattered by the CONTRACTOR or its employees.

3.11.2 Equipment oil, hydraulic fluids, spilled paint, or any other liquid or debris resulting from the CONTRACTOR’S operations or equipment repair shall be covered immediately with an absorptive material and removed from the street surface. When necessary, CONTRACTOR shall apply a suitable cleaning agent to the street surface to provide adequate cleaning.

3.11.3 The above paragraphs notwithstanding, CONTRACTOR shall clean up any spillage or litter caused by CONTRACTOR within two (2) hours upon notice from the CITY.

3.11.4 To facilitate such cleanup, CONTRACTOR’S vehicles shall at all times carry sufficient quantities of petroleum absorbent materials along with a broom and shovel.

3.12 Ownership of Materials.

3.12.1 Title to Residential Waste, City Waste and Recyclable Materials shall pass to CONTRACTOR at such time as said materials are placed in the CONTRACTOR'S Collection vehicle.

3.12.2 Title to material Collected as part of Special Clean-up Service shall pass to CONTRACTOR at the time the material is placed in the Roll-Off Container or other Collection vehicle or container approved for use in the Special Clean-Up Service event.

3.12.3 Title to material Collected as part of Debris Collection Service shall pass to CONTRACTOR at such time as said materials are placed in the CONTRACTOR'S Collection vehicle.

3.12.4 Title to Sweep Waste shall pass to CONTRACTOR at such time as said materials are placed in CONTRACTOR'S street sweeping vehicle.

3.13 Additional Programs.

3.13.1 Sharps Collection Service. CONTRACTOR shall provide Sharps Collection Service throughout the term of the Contract and CONTRACTOR will include information about the Sharps Collection Service in the Public Education and Outreach Programs undertaken pursuant to Article 16 throughout the term of the Contract.

3.13.2 Dry Cell Battery Collection. CONTRACTOR shall collect dry cell household batteries as part of Residential Recycling Collection Service and CONTRACTOR will include information about dry cell battery collection services in Public Education and Outreach Programs undertaken pursuant to Article 16 throughout the term of the Contract.

3.13.3 Public Outreach and Education Services. CONTRACTOR shall make expanded public outreach and educational services, as set forth in Article 16.01 of this Contract.

3.13.4 Annual Payment for City Services. CONTRACTOR shall fund additional services in the amount of four hundred fifty thousand dollars ($450,000) per year. That amount shall be paid to the CITY on or before April 1 of each Contract Year, for a total of three million one hundred and fifty thousand dollars ($3,150,000). These funds may be designated for the following services, or such other services as City may determine:

- Weed Abatement and Landscape Maintenance Program;
- Litter Cleanup Program;
- Street Maintenance;
- Graffiti Removal Program;
- Compact Fluorescent Lamps ("CFLs") Recycling Program.

The amount of expenditure for each program listed above, or additional programs not listed, is completely at the discretion of the CITY.

ARTICLE 4. Charges and Rates

4.01 Collection and Street Sweeping Services. The CONTRACTOR shall be responsible for the billing and collection of payments for all Collection Services and Street Sweeping Services, except that CITY will assist CONTRACTOR with the collection of fees on delinquent accounts. The CONTRACTOR shall charge Service Recipients the Collection Service rates and Street Sweeping Fees established in **Exhibit 1**, which is attached to and included in this Contract, and as may be adjusted under the terms of this Contract.

4.01.1 Partial Month Service. If, during a month, a Service Unit is added to or deleted from CONTRACTOR'S Service Area, the CONTRACTOR'S billing shall be pro-rated by dividing the appropriate monthly service rate established in **Exhibit 1** by four (4) and multiplying the result by the number of actual weeks in the month that service was provided to the Service Unit.

4.01.2 Production of Invoices. The CONTRACTOR shall produce an invoice, in a form and format that is approved by the Contract Administrator, for services received under this Contract in advance but no less than four (4) times per year. The CONTRACTOR'S invoice shall be remitted to the Service Recipient no earlier than the twentieth (20^{th}) day of the month preceding the period for which the service is being billed.

4.01.3 Delinquent Service Accounts. The CONTRACTOR may take such action as is legally available to collect or cause collection of past due amounts. The CITY will, as allowed under applicable law, assist the CONTRACTOR in the recovery of delinquent accounts by administering the lien process and placing overdue amounts on the tax rolls following proper notice and hearing to Service Recipients. However, in no event, except upon notice in writing by the Contract Administrator, shall the CONTRACTOR cease provision of Collection Services to any Service Unit due to non-payment.

4.01.4 Collection Service Rates and Street Sweeping Fees. Collection Service rates and Street Sweeping Fees, as set forth in **Exhibit 1**, will be set on July 1, 2022 to include SB 1383 program implementation, and annually adjusted on July 1 thereafter during the term of this Contract, in accordance with the rates set forth in **Exhibit 1**. No other adjustments to the Collection Service rates, including adjustments for governmental fees, except those governmental fees set forth in Section 4.01.4.1, administrative costs, add-on fees, or other fees of any type, may be made under the terms of this Contract unless such adjustment is proposed and requested by the CITY and considered a pass-through to the CONTRACTOR.

4.01.4.1 Governmental fees enacted by an agency of the Federal Government or by the State of California that apply to all disposal or processing facilities in the State of California may, to the extent they affect the operating costs of the CONTRACTOR, be included in the Collection Service rates and considered a pass-through by the CONTRACTOR. In addition, governmental fees enacted by the City or

County of Sacramento that apply to all disposal or processing facilities in Sacramento County may, to the extent they affect the operating costs of the CONTRACTOR, be included in the Collection Service rates and considered an allowed pass-through by the CONTRACTOR.

4.01.5 No other adjustments to the Collection Service rates, including adjustments for City Modifications and Changes in Law, governmental fees, except those governmental fees set forth in Section 4.01.4.1, administrative costs, add-on fees, or other fees of any type, may be made under the terms of this Contract unless such adjustment is proposed and requested by the CITY and considered a pass-through to the CONTRACTOR.

ARTICLE 5. Diversion Requirements – Collection Services

5.01 Minimum Requirements. The CITY requires the CONTRACTOR to achieve a minimum annual diversion rate of forty percent (40%) for each Contract Year. The annual diversion rate will be calculated as "*the tons of materials Collected from the provision of Collection Services that are sold or delivered to a recycler or reuser, as required by this Contract, divided by the total tons of materials Collected in each Contract Year as appropriate*."

5.02 Failure To Meet Minimum Requirements. CONTRACTOR'S failure to meet the minimum diversion requirements set forth above in Section 5.01 may result in the termination of this Contract or the imposition of administrative charges.

5.03 Warranties and Representations. CONTRACTOR warrants that it is aware of and familiar with City's Residential Waste and City Waste, and that it has the ability to and will provide the programs and services as outlined in this Contract. These programs and services were specifically designed to assist the City meet or exceed the diversion requirements as set forth in this Article 5, as well as the diversion requirements of the Applicable Laws (including, without limitation, amounts of Solid Waste to be diverted, time frames for diversion, and any other requirements) (including AB 939, AB 341, AB 1826, AB 1594, SB 1016, and SB 1383, and other Applicable Law). CONTRACTOR will provide the programs and services as outlined in this Contract without imposing any costs or fees other than those set forth on Exhibit 1.

5.04 Mutual Cooperation. City and Contractor will reasonably cooperate in good faith with all efforts by each other to meet City's diversion and other compliance requirements imposed by AB 939, AB 341, AB 1826, AB 1594, SB 1016, and SB 1383 and other Applicable Laws, and to meet Contractor's obligations under this Article 5. In this regard, City's obligations may include making such petitions and applications as may be reasonably requested by Contractor for time extensions in meeting diversion goals, or other exceptions from the terms of Applicable Laws, and to agree to authorize such changes to Contractor's Recycling, Organic Waste, or Solid Waste programs as may be reasonably requested by Contractor in order to achieve the minimum requirements of this Article 5.

5.05 Program Assistance. Except for programs required by Applicable Law but not set forth in this Contract, or diversion programs not authorized and approved by the City to implement, or services which a Service Recipient refuses to accept, Contractor shall implement diversion programs in the City such that: (i) Contractor and City will at all times be in compliance with the requirements of the Applicable Laws applicable to them including specifically AB 939, AB 341, AB 1826, AB 1594, SB 1016, and SB 1383, and (ii) City will meet or exceed the diversion requirements (including, without limitation, amounts of Solid Waste to be diverted, time frames for diversion, and any other requirements) set forth in this Article 5 and the Applicable Laws including AB 939, AB 341, AB 1826, AB 1594, SB 1016, and SB 1383, and all amendments thereto (subject to Section 2601).

ARTICLE 6. Service Units – Collection Services

6.01 Service Units. Service Units for Collection Services shall include all the following categories of premises which are in the Service Area as of January 1, 2022 and all such premises which may be added to the Service Area by means of annexation, new construction, or as otherwise set forth in this Contract during the term of this Contract:

6.01.1 Residential Service Units

6.01.2 City Service Units (Exhibit 3)

6.01.3 Any question as to whether a premises falls within one of these categories shall be determined by the Contract Administrator and the determination of the Contract Administrator shall be final.

6.02 Service Unit Changes. The CITY and CONTRACTOR acknowledge that during the term of this Contract it may be necessary or desirable to add or delete Service Units for which CONTRACTOR will provide Service.

6.02.1 Additions and Deletions. CONTRACTOR shall provide services described in this Contract to new Service Units in CONTRACTOR'S Service Area within five (5) Work Days of receipt of notice from the CITY or new Service Unit to begin such Service.

6.03 Annexation. If during the term of the Contract, additional territory is acquired by the CITY through annexation, CONTRACTOR agrees to provide Collection Services in such annexed area in accordance with the provisions and service rates set forth in this Contract. Such Collection Services shall begin within five (5) Work Days of receipt of written notice from the CITY. CONTRACTOR shall not begin Collection Service without written authorization from the CITY.

6.04 Route Map Update. CONTRACTOR shall revise the Service Unit route maps to show the addition of Service Units added due to annexation and shall provide such revised maps to the Contract Administrator as requested.

ARTICLE 7. Recyclable Materials and Organic Waste Contamination

7.01 Recyclable Materials and Organic Waste Contamination Protocols:

7.01.1 CONTRACTOR shall document Prohibited Container Contaminants, as set forth in Section 1.60 and Exhibit 9, with still pictures or video, and must notify the Service Recipient of the Prohibited Container Contaminants and proper procedures for sorting Recyclable Materials and Organic Recyclable Materials in person through the application of a Cart tag, or by electronic communication or phone call. If CONTRACTOR does not possess an email address or phone number for the Service Recipient, CONTRACTOR may provide a written communication through U.S. mail, which shall include a request for an email address or phone number for future notifications.

7.01.2 CONTRACTOR may, at its discretion, Collect the Container as Recyclable Materials, Organic Materials, or as Solid Waste. Service Recipient may be charged the City-approved Contamination Surcharge set forth in **Exhibit 1**. The Service Recipient will receive, upon request of Service Recipient or the City, one courtesy waiver of the Contamination Surcharge.

7.01.3 If necessary, CONTRACTOR may increase Service Recipient's Garbage Container size or frequency of Collection if Service Recipient has three (3) or more Contamination Surcharges in any twelve (12) month period, or as otherwise determined by City Contract Manager. Prior to requiring an additional (or larger) Container or change in collection frequency, CONTRACTOR's representative must first attempt to contact the Service Recipient by phone, U.S. mail, e-mail, other electronic means to ensure that they have the appropriate level of service for proper collection of Recyclable Materials, Organic Recyclable Materials, and Garbage.

7.02 The CONTRACTOR agrees to provide a grace period and not to charge Contamination Surcharge from July 1, 2022 through December 31, 2022, or six (6) months after Food Waste Collection Service has been implemented whichever is later.

7.03 Disputes Over Excess Contamination Charges.

7.03.1 If Service Recipient disputes an action undertaken by CONTRACTOR as described above, which must be within 30 days of the disputed action, CONTRACTOR shall initially use good faith efforts to informally resolve the dispute.

7.03.2 If not resolved within ten (10) Business Days, CONTRACTOR shall temporarily halt any Contamination Surcharge and/or increased service resulting from increasing the Container size or collection frequency until the dispute is resolved in accordance with this Exhibit. CONTRACTOR may request a ruling by the Contract Administrator to resolve the dispute. A request by CONTRACTOR to the Contract Administrator to rule on any such dispute must be filed within ten (10) Business Days of CONTRACTOR's halting of its actions, and must include written documentation and digital/visual evidence of ongoing overall problems.

7.03.3 The Contract Administrator may request a meeting (in person or phone) with both the Service Recipient and CONTRACTOR to resolve the dispute. If Contract Administrator requests a meeting and Service Recipient does not respond to Contract Administrator within thirty (30) Business Days of request by Contractor to Contract Administrator to rule on any such dispute, CONTRACTOR may charge Service Recipient the prior halted contamination charge and/or increased Service Rate from the date on which the increased services (e.g., increasing the Container number, size or collection frequency) commenced at rates as set forth in the Schedule of Service Rates and dispute will be final.

7.03.4 Following a meeting between Contract Administrator, Service Recipient, and CONTRACTOR, the Contract Administrator will rule on the dispute within ten (10) Business Days, and the Contract Administrator's decision on resolving the dispute between and Service Recipient will be final. If the Contract Administrator rules in favor of the Service Recipient, CONTRACTOR will credit the disputed contamination charges or increased Service Rate. If the Contract Administrator rules in favor of CONTRACTOR, CONTRACTOR may charge Service Recipient the prior halted contamination charge and/or increased Service Rate from the date on which the increased services (e.g., increasing the Container number, size or collection frequency) commenced at rates as set forth in the Schedule of Service Rates.

7.04 Plan of Correction. If CONTRACTOR fails to follow the Recyclable Materials and Organic Recyclable Material Contamination procedures as set forth in this Exhibit, CONTRACTOR shall prepare and submit to the Contract Administrator a plan of correction within fifteen (15) Business Days of demand from the City. Upon approval by the plan of correction by the Contract Administrator, CONTRACTOR shall implement the plan of correction.

7.05 Route Review.

7.05.1 CONTRACTOR will audit and report on a minimum of 5,000 accounts per year. CONTRACTOR will conduct a Route Review and report on a minimum of 175 accounts per Hauler Route per year, equating to 4375 accounts per year. For the remaining 625 Route Reviews, CONTRACTOR may choose which Hauler Route to review, based on contamination levels throughout the City.

7.05.2 Contamination Auditor will conduct Route Reviews on collection days when Gray, Blue, and Green Containers are scheduled for a Hauler Route. A Route Review will consist of opening the Gray, Blue, and Green Container, searching the top layer of material for Prohibited Container Contaminants, filling out a Prohibited Contamination Contaminants Container tag, documenting the data for reporting (including photographing Prohibited Contamination Contaminants), and returning the Gray, Blue, and Green Container lids.

ARTICLE 8. Residential Collection Service

8.01 Residential Collection Service. These services shall be governed by the following terms and conditions:

8.02 Conditions of Service. The CONTRACTOR shall provide Residential Collection Service to all Residential Service Units in the Service Area whose; Residential Garbage is properly containerized in Gray Containers, Recyclable Materials are properly containerized in Blue Containers, except as set forth in Section 8.07.1, and Organic Recyclable Material is properly containerized in Green Containers, except as set forth in Section 8.08.1, where the Gray, Blue, and Green Containers have been placed within three (3) feet of the curb, swale, paved surface of the public roadway, closest accessible roadway, or other such location agreed to by the CONTRACTOR and Service Recipient, that will provide safe and efficient accessibility to the CONTRACTOR'S Collection crew and vehicle.

8.03 On-Premises Service. Notwithstanding any term or definition set forth in this Contract, CONTRACTOR shall provide on-premises Collection of Residential Garbage, Recyclable Materials, and Organic Recyclable Materials to a Residential Service Unit if all adult Service Recipients residing therein have disabilities that prevent them from setting their Gray, Blue or Green Container at the curb for Collection and if a request for on-premises service has been made to, and approved by, the Contract Administrator in the manner required by CITY. The Contract Administrator shall notify the CONTRACTOR in writing of any Residential Service Units requiring on-premises service along with the date such service is to begin. No additional monies shall be due to the CONTRACTOR for the provision of on-premises service.

8.03.1 Collection Day. CONTRACTOR shall provide on-premises Collection Service on the same Work Day that curbside Collection Service would otherwise be provided to the Residential Service Unit.

8.04 Frequency and Scheduling of Service.

8.04.1 Initial Term Through July 4, 2022. Residential Garbage Collection Service shall be provided one (1) time per week on a scheduled route basis. Residential Recycling Collection Service, including Residential Used Oil Collection Service, dry cell battery collection, and Green Material Collection Service shall be provided one (1) time every other week on an alternating basis and shall be scheduled so that a Residential Service Unit receives Residential Garbage Collection Service, and Residential Recycling Collection Service, including Residential Used Oil Collection Service or Green Material Collection Service on the same Work Day.

8.04.2 July 4, 2022 Through Termination Date. Beginning no later than July 4, 2022, CONTRACTOR shall commence performance of Organic Recyclable Material Collection to all Service Units. Residential Garbage and Organic Recyclable Material Collection Service shall be provided **one (1) time per week** on a scheduled route basis. Residential Recycling Collection Service, including Residential Used Oil Collection

Service, and dry cell battery collection, shall be provided **one (1) time every other week** and shall be scheduled so that a Residential Service Unit receives Residential Garbage Collection Service, Residential Recycling Collection Service, and Organic Recyclable Material Collection Service, including Residential Used Oil Collection Service, on the same Work Day.

8.05 Hours and Days of Collection. Residential Collection Service shall be provided, commencing no earlier than 6:00 a.m. and terminating no later than 6:00 p.m., Monday through Friday with no service on Saturday (except for holiday service as set forth in Section 3.08 of this Contract) or Sunday. The hours, days, or both of Collection may be extended due to extraordinary circumstances or conditions with the prior written consent of the Contract Administrator.

8.06 Manner of Collection. The CONTRACTOR shall provide Residential Collection Service with as little disturbance as possible and shall leave any Gray, Blue or Green Containers in an upright position at the same point it was Collected without obstructing alleys, roadways, driveways, sidewalks or mail boxes.

8.06.1 CONTRACTOR'S employees providing Residential Collection Service shall follow the regular walk for pedestrians while on private property and shall not trespass nor cross property to the adjoining premises unless the occupant or owner of both properties has given permission. Care should be taken to prevent damage to property, including flowers, shrubs, and other plantings.

8.06.2 Purchase and Distribution of Containers.

8.06.2.1 The CONTRACTOR shall be responsible for the purchase and distribution of fully assembled and functional Gray, Blue, and Green Containers at new Residential Service Units in the Service Area as set forth in **Exhibit 4**. Residential Service Units shall be provided with one (1) Gray Container, One (1) Blue Container and one (1) Green Container. Additional Gray, Blue, or Green Containers may be requested by the customer in accordance with the "Additional Container" Service Rate set forth in **Exhibit 1**, or as may be adjusted under the terms of this Contract.

8.06.2.2 CONTRACTOR is responsible for the purchase and distribution of fully assembled and functional Kitchen Food Waste Pails to Residential Service Units in the Service Area, including to new Residential Service Units that are added to CONTRACTOR'S Service Area during the term of this Contract. The initial distribution of Kitchen Food Waste Pails must be completed on Work Days between June 27, 2022 and July 22, 2022 along with educational outreach materials as approved by City, and will be provided at no additional charge (one (1) pail per Residential Service Unit). The distribution to new Service Units must be completed within five (5) Work Days of receipt of notification from City or the Service Unit.

8.06.3 Additional Blue or Green Container. Upon request, CONTRACTOR shall provide one (1) additional Blue or Green Container to any Residential Service Unit for the provision of Recycling or Organic Recyclable Material Collection Service. This service shall be provided by CONTRACTOR at no additional charge to the Service Recipient. CONTRACTOR shall be compensated for the delivery or exchange of additional Cart(s) in accordance with Section 8.05.6.

8.06.4 Replacement of Gray, Blue and Green Containers. CONTRACTOR'S employees shall take care to prevent damage to carts by unnecessary rough treatment. However, any Container damaged by the CONTRACTOR shall be replaced by the CONTRACTOR, at the CONTRACTOR'S expense, within five (5) Work Days at no cost or inconvenience to the Service Recipient.

8.06.4.1 Upon notification to the CONTRACTOR by the CITY or a Service Recipient that the Service Recipient's Gray, Blue or Green Containers(s) has been lost, stolen or damaged beyond repair through no fault of the CONTRACTOR, or needs replacement due to age and normal wear and tear, the CONTRACTOR shall deliver a replacement Containers(s) to such Service Recipient within five (5) Work Days. Upon notification to the CONTRACTOR by the Service Recipient that the Service Recipient's Kitchen Food Waste Pail has been lost or damaged beyond repair, the CONTRACTOR shall deliver up to one replacement Kitchen Food Waste Pail at no additional charge to the Service Recipient within (5) Work Days during the term of the Contract. The CONTRACTOR shall maintain records documenting all Containers replacements occurring on a monthly basis.

8.06.4.2 Each Service Recipient shall be entitled to the replacement of one (1) lost, destroyed, or stolen Gray Container, one (1) lost, destroyed, or stolen Blue Container, and one (1) lost, destroyed, or stolen Green Container during the term of this Contract at no cost to the Service Recipient. Except in the case of a Container that must be replaced because of damage caused by CONTRACTOR, due to damage caused by age, or in the case where CONTRACTOR elects to replace a Container rather than repair it on-site, CONTRACTOR shall be compensated for the cost of those replacements in excess of one (1) per type of Container per Service Recipient during the term of the Contract, in accordance with the "Container Replacement" Service Rate set forth in **Exhibit 1,** or as may be adjusted under the terms of this Contract.

8.06.4.3 CONTRACTOR understands and agrees that this provision is intended to be applied on a per Container type, Service Recipient basis and accordingly each Service Recipient could receive up to three (3) replacement Container, one (1) of each type, during the life of the Contract.

8.06.5 Repair of Gray, Blue and Green Containers. CONTRACTOR shall be responsible for repair of Container(s) in the areas to include but not be limited to, hinged lids, wheels and axles. Within five (5) Work Days of notification by the CITY or a Service

Recipient of the need for such repairs, the CONTRACTOR shall repair the Container or, if necessary, remove the Container for repairs and deliver a replacement Container to the Service Recipient.

8.06.6 Container Exchange. Upon notification to the CONTRACTOR by the CITY or a Service Recipient that a change in the size of a Gray, Blue or Green Container is required, or that the Service Recipient requires a second Blue or Green Container, the CONTRACTOR shall deliver such Container to such Service Recipient within five (5) Work Days. Each Residential Service Unit shall be eligible to receive one (1) free Gray, Blue and Green Container exchange per Contract Year during the term of this Contract and one free delivery of a second Blue or Green Container during the term of this Contract. Accordingly, CONTRACTOR shall be compensated for the cost of those exchanges in excess of one (1) per Container type per Contract Year, in accordance with the "Container Exchange" service rate as set forth in **Exhibit 1** or as may be adjusted under the terms of this Contract.

8.06.7 Ownership of Gray, Blue and Green Container. Ownership of Gray, Blue and Green Container(s) shall rest with the CONTRACTOR, except that ownership of Gray, Blue and Green Container(s) in the possession of a Service Recipient at the end of this Contract may rest with the CITY, at City's sole discretion.

8.07 Residential Garbage Collection Service. This service will be governed by the following terms and conditions:

8.07.1 Non-Collection. Except as set forth in Section 8.12, CONTRACTOR shall not be required to Collect any Residential Garbage that is not placed in a Gray Container. In the event of non-collection, CONTRACTOR shall affix to the Gray Container a Non-Collection Notice explaining why Collection was not made. CONTRACTOR shall maintain a copy of such notices during the term of this Contract.

8.07.2 Disposal Facility. Except as set forth below, all Residential Garbage Collected as a result of performing Residential Garbage Collection Service shall be transported to, and disposed of, at the Disposal Facility. In the event the Disposal Facility is closed on a Work Day, the CONTRACTOR shall transport and dispose of the Residential Garbage at such other legally permitted disposal facility as designated in writing by CITY. Failure to comply with this provision shall result in the levy of an administrative charge as specified in Article 21 of this Contract and may result in the CONTRACTOR being in default under this Contract.

8.08 Residential Recycling Service. This service will be governed by the following terms and conditions:

8.08.1 Overages. Corrugated cardboard that will not fit inside the Blue Container may be placed beside the Blue Container for Collection.

8.08.2 Recycling - Improper Procedure. Except as set forth in this Section 8.08.2, the CONTRACTOR shall not be required to Collect Recyclable Materials if the Service Recipient does not segregate the Recyclable Materials from Residential Garbage. Furthermore, except as set forth in Section 8.08.1 above, CONTRACTOR shall not be required to Collect any Recyclable Material that is not placed in a Blue Container. If Recyclable Materials are contaminated through commingling with Residential Garbage, the CONTRACTOR shall, if practical, separate the Residential Garbage from the Recyclable Materials. The Recyclable Materials shall then be Collected and the Residential Garbage shall be left in the Blue Container along with a Non-Collection Notice explaining why the Residential Garbage is not considered a Recyclable Material. However, in the event the Recyclable Materials and Residential Garbage are commingled to the extent that they cannot easily be separated by the CONTRACTOR or the nature of the Residential Garbage renders the entire Blue Container contaminated, the CONTRACTOR will leave the Blue Container un-emptied along with a Non-Collection Notice that contains instructions on the proper procedures for setting out Recyclable Materials. If contents in the Blue Container are contaminated, the CONTRACTOR will have the option to collect the contaminated Container and charge a Contamination Fee. CONTRACTOR will be required to take a picture of the contamination and notify the customer using a Non-Collection/Contamination notice.

8.08.3 Material Recycling Facility. All Recyclable Materials Collected as a result of performing Recycling Services shall be delivered to the Material Recycling Facility. Failure to comply with this provision shall result in the levy of an administrative charge as specified in Article 21 of this Contract and may result in the CONTRACTOR being in default under this Contract.

8.08.4 Recycling - Changes to Work. Should changes in law arise that necessitate any additions or deletions to the work described herein including the type of items included as Recyclable Materials, the parties shall negotiate any necessary cost changes and shall enter into a Contract amendment covering such modifications to the work to be performed and the compensation to be paid before undertaking any changes or revisions to such work.

8.09 Organic Recyclable Material Collection Service. This service will be governed by the following terms and conditions:

8.09.1 Christmas Tree Collection. The CONTRACTOR shall Collect Christmas Trees set out at the curb for Collection during the three-week period beginning December 26 and annually thereafter during the term of this Contract. CONTRACTOR shall deliver the Collected Christmas Trees to an appropriate facility for processing. Christmas Trees shall be limited to 8 feet tall , and must be generated by and at the

Residential Service Unit wherein the Christmas Tree is Collected. This annual service shall be provided at no additional charge to the Service Recipient.

8.09.1.1 Contaminated Christmas Trees: Christmas trees that are flocked, contain tinsel or other decorations may be transferred and/or delivered to the Disposal Facility at the discretion of the CONTRACTOR.

8.09.2 Non-Collection. Except as set forth in Section 8.09.1 above, CONTRACTOR shall not be required to Collect any Organic Recyclable Material that is not placed in a Green Container. Furthermore, CONTRACTOR shall not be required to provide Leaf Collection Service as detailed in Section 8.11 if a bag contains any material other than leaves. In the event of non-collection, CONTRACTOR shall affix to the Green Containers or bags a Non-Collection Notice explaining why Collection was not made. CONTRACTOR shall maintain a copy of such notices during the term of this Contract. If contents in the Green Containers are contaminated, the CONTRACTOR will have the option to collect the contaminated Container and charge a Contamination Fee. CONTRACTOR will be required to take a picture of the contamination and notify the customer using a Non-Collection Notice.

8.10 Organic Recyclable Material Processing Services. CONTRACTOR shall ensure that all Organic Recyclable Material Collected pursuant to this Contract is diverted from the landfill in accordance with AB 939 and subsequent legislation and regulations.

8.10.1 CONTRACTOR shall ensure that the Organic Recyclable Material Collected pursuant to this Contract is not disposed of in a landfill, except as a residue resulting from processing.

8.10.2 Organic Recyclable Material Processing Facility. CONTRACTOR must ensure that all Organic Recyclable Material collected pursuant to this Contract is diverted from the landfill in accordance with AB 939, AB 1826, AB 1594, SB 1016 and SB 1383, and any other Applicable Law. CONTRACTOR shall deliver all Collected Organic Recyclable Material to a fully permitted Organic Recyclable Material Processing Facility, a fully permitted Transfer Station, or other properly permitted facility. All expenses related to Organic Recyclable Material processing and marketing will be the sole responsibility of CONTRACTOR.

8.11 Leaf Collection Service. CONTRACTOR shall provide Leaf Collection Service at the normal Organic Recyclable Material Collection pick-up date and time. CONTRACTOR shall collect up to four (4) 30-gallon bags per Service Unit per Collection. This service shall be provided at no additional cost to the City or Service Recipient.

8.12 Large Item Collection Service. This service will be governed by the following terms and conditions.

8.12.1 Conditions of Service. The CONTRACTOR shall provide Large Item Collection Service to all Residential Service Units in the Service Area whose Large Items have been placed within three (3) feet of the curb, swale, paved surface of the public roadway, closest accessible roadway, or other such location agreed to by the CONTRACTOR and Service Recipient, that will provide safe and efficient accessibility to the CONTRACTOR'S Collection crew and vehicle. The Service Recipient shall be limited to ten (10) cubic yards per Collection. Accordingly, CONTRACTOR shall be compensated for the cost of Collecting Large Items in excess of this limitation in accordance with the "additional Large Item Collection" service rate as set forth in **Exhibit 1** or as may be adjusted under the terms of this Contract. Each Residential Service Unit in the Service Area shall be entitled to receive Large Item Collection Service up to three (3) times per Contract Year.

8.12.2 Frequency of Service. Large Item Collection Service shall be provided within seven (7) days of receipt of the request, excluding Saturdays, Sundays and Holidays, as set forth herein. The Service Recipient shall not intentionally commingle Large Items with other Residential Waste. Large Item Collection Service will occur on the same day as Garbage Collection Service, Recycling Collection Service and Organic Recyclable Material Collection Service. Large Items placed in the public right of way more than twenty-four (24) hours before their scheduled Collection day may be considered illegal dumping if placement of such items is in violation of the Rancho Cordova Municipal Code and City may request CONTRACTOR to remove such items. If permissible, such removal shall be considered a special pick up for the service recipient and be subject to the special pick up fees as set forth in Exhibit 1.

8.12.3 Care of Large Items. During the Collection and transporting of Large Items, CONTRACTOR shall take reasonable care to see that reusable goods are not damaged. In the event that CONTRACTOR Collects Large Items that contain Freon, CONTRACTOR shall handle such Large Items in a manner such that the Large Items are not subject to regulation as Hazardous Waste under applicable state and federal laws or regulations.

8.12.4 Maximum Reuse and Recycling. CONTRACTOR must process bulky waste and Large Items collected from Service Units pursuant to this Contract locally, using a City-approved certified facility. CONTRACTOR shall ensure that Organic Recyclable Material and Recyclable Material Collected pursuant to this Contract is diverted from the landfill in accordance with AB 939 and subsequent legislation and regulations. If the CONTRACTOR is unable to deliver to the City-approved facility due to the City-approved facility failing to qualify as a High Diversion Organic Waste Processing Facility, and no other City-approved facility(ies) are available within fifteen (15) miles from the Elder Creek Transfer Station, or the Material Recovery Facility processing fee is more than sixty-seven dollars ($67.00) per ton, as adjusted annually by the CPI-U-WST

Adjustment, the CONTRACTOR may be entitled to receive additional compensation in accordance with Section 26.01 to recover the incremental costs for a change in travel distance or tipping fee. CONTRACTOR shall not landfill Large Items unless the Large Items cannot be reused or recycled.

8.13 Residential Used Oil Collection Service. This service will be governed by the following terms and conditions:

8.13.1 Conditions of Service. In conjunction with the provision of Residential Recycling Collection Service, the CONTRACTOR shall provide Residential Used Oil Collection Service to all Residential Service Units in the Service Area utilizing Used Oil Containers for the accumulation and set-out of their Used Oil, and Used Oil Filter Containers for the accumulation and set out of their Used Oil Filters where the Used Oil Containers and Used Oil Filter Containers have been placed within three (3) feet of the curb, swale, paved surface of the public roadway, closest accessible roadway, or other such location agreed to by the CONTRACTOR and Service Recipient, that will provide safe and efficient accessibility to the CONTRACTOR'S Collection crew and vehicle.

8.13.2 Non-Collection. CONTRACTOR shall not be required to collect material placed in Used Oil or Used Oil Filter Containers unless the material is Used Oil or Used Oil Filters, as appropriate, and is free of contamination other than contamination normally expected to be present as a result of the use, storage or spillage of the Used Oil or Used Oil Filter. In the event of non-collection, CONTRACTOR shall affix to the Used Oil or Used Oil Filter Container a Non-Collection Notice explaining why Collection was not made and maintain a copy of such notice during the term of this Contract. Prior to the end of the Work Day, CONTRACTOR shall notify the Contract Administrator, either by Fax or e-mail, of any non-collection occurrences. If non-collection is because the Used Oil or Filter was placed in an improper container, CONTRACTOR shall also leave Used Oil or Used Oil Filter Containers in a number sufficient to contain the Used Oil or Used Oil Filters set out, but not exceeding a number sufficient to hold sixteen (16) quarts, or two (2) Used Oil Filters along with the Non-Collection Notice.

8.13.3 Spillage. CONTRACTOR shall carry oil absorbent material on all vehicles providing Used Oil Collection Service and shall cleanup any Used Oil that spills during Collection, which has leaked from the Used Oil or Used Oil Filter Container, or which spills or leaks during the time the Used Oil or Used Oil Filter is in the Collection vehicle.

8.13.4 Used Oil and Used Oil Filter Containers. To the extent allowed by CONTRACTOR, residents may provide their own used oil and used filter containers. However, in the event CONTRACTOR allows the use of resident-provided containers, CONTRACTOR shall assume any and all liabilities related to the use of such resident-provided containers. Within three (3) Work Days of receipt of a verbal, written, or

electronic request of CITY or a Service Recipient, CONTRACTOR shall, at CONTRACTOR'S sole cost and expense, provide the Residential Service Unit where the Service Recipient resides with Used Oil Containers and Used Oil Filter Containers in the number requested by the CITY or the Service Recipient but not exceeding a number sufficient to hold sixteen (16) quarts of Used Oil and two (2) Used Oil Filters.

8.13.4.1 At the time CONTRACTOR Collects Used Oil from a Service Recipient, CONTRACTOR shall, at CONTRACTOR'S sole cost and expense, leave at the premises one (1) Used Oil Container for each Used Oil Container Collected and one (1) Used Oil Filter Container for each Used Oil Filter Container Collected. CONTRACTOR shall keep the outside of all Used Oil and Used Oil Filter Containers clean and may re-use the containers until the condition of the container makes it inappropriate for re-use.

8.13.5 Segregation of Used Oil. CONTRACTOR shall keep all Used Oil and Used Oil Filters Collected pursuant to this Contract segregated from other materials.

8.13.6 Used Oil Processing. CONTRACTOR shall recycle all Used Oil Collected pursuant to this Contract to the extent feasible and shall properly dispose of all Used Oil and Used Oil Filters that are contaminated or otherwise cannot be recycled.

8.13.6.1 CONTRACTOR shall recycle the Used Oil only with persons who are authorized by the State of California to recycle oil. In the event the Used Oil or Used Oil Filters Collected pursuant to this Contract is contaminated to the extent that the Used Oil or Used Oil Filters require disposal as a Hazardous Waste, CONTRACTOR shall dispose of such Used Oil or Used Oil Filters, at CONTRACTOR'S own cost and expense in accordance with applicable state and federal law.

8.13.6.2 CONTRACTOR shall notify the Contract Administrator, either by fax or e-mail, of any contamination which renders the Used Oil unacceptable for recycling or which requires disposal of the Used Oil or Used Oil Filters as a Hazardous Waste.

8.14 Sharps Collection Service. The service will be governed by the following terms and conditions:

8.14.1 Collection. Within one (1) week after request by Service Recipient CONTRACTOR will collect any Sharps discarded in Approved Sharps Containers provided by the Service Recipient, at that Service Recipient's Residential premise without surcharge to the Service Recipient or charge to the CITY. As part of the Sharps Collection Service, CONTRACTOR shall provide an option for Service Recipients to mail back their Sharps, if contained in a Contractor approved container for a fee. If CONTRACTOR delivers Approved Sharps Container(s) to a transfer station that CONTRACTOR owns or operates, CONTRACTOR will arrange for a medical waste hauler to pick up the Approved

Sharps Container(s), and stage or store the Container(s) until the certified medical waste hauler collects the Container(s).

8.14.2 Container. CONTRACTOR will, at the sole cost to the CONTRACTOR, provide Service Recipients with an Approved Sharps Container for use in the Sharps Collection Program.

8.14.3 Service Recipient Appointment. CONTRACTOR will follow the following procedure:

8.14.3.1 CONTRACTOR will receive the Service Recipient's telephone request for Sharps Collection Service during phone hours at the local, toll-free telephone number that CONTRACTOR must maintain.

8.14.3.2 If the Service Recipient provides his or her telephone number to CONTRACTOR on that call, CONTRACTOR will return the call to schedule and Collect an Approved Sharps Container on Service Recipient's regularly scheduled Collection day between 6 a.m. and 3 p.m.

8.14.3.3 CONTRACTOR will arrange with Service Recipient where Service Recipient will personally deliver the Approved Sharps Container to the CONTRACTOR'S employee when the employee knocks on or rings the bell at the Service Recipient's front door. CONTRACTOR may not arrange with Service Recipient to set out any Approved Sharps Container at the Service Recipient's curbside set-out site. In addition to the personal delivery of the Approved Sharps Container by the Service Recipient to the CONTRACTOR'S employee, the CITY may arrange for a drop-off location at one of the CITY's owned facilities. CONTRACTOR will record the time and place of regularly scheduled Collection on the Service Recipient's subscription form.

8.14.4 Non-Collection. CONTRACTOR is not required to Collect Sharps in the following events:

8.14.4.1 Service Recipient discards materials other than Sharps, such as prescription drugs,

8.14.4.2 Service Recipient does not discard Sharps in an Approved Sharps Container,

8.14.4.3 Sharps have spilled out of the Approved Sharps Container, or the Container is broken, split or otherwise damaged, or it is not sealed properly, or

8.14.4.4 Service Recipient does not set out the Approved Sharps Container at the place arranged between the Service Recipient and the CONTRACTOR: for example, Service Recipient sets out the container at the curb.

In any of these events, CONTRACTOR will complete and leave a Non-Collection Notice securely attached to the discarded material container, describing the reason that the CONTRACTOR did not Collect the Approved Sharps Container.

8.14.5 Handling Sharps.

8.14.5.1 CONTRACTOR'S employee will record Collection thereof on his or her route sheet.

8.14.5.2 CONTRACTOR will transport Approved Sharps Container to CONTRACTOR'S transfer station located at 8642 Elder Creek Road, Sacramento, CA.

8.14.5.3 CONTRACTOR will arrange for disposal of Sharps in accordance with Applicable Law.

8.14.6 Customer Education and Outreach. CONTRACTOR will provide all Customers with a description of the Sharps Collection program.

8.14.7 Collection of Sharps at the Transfer Station. CONTRACTOR will accept delivery of all Sharps delivered by Service Recipient (as evidenced by written identification) to CONTRACTOR'S transfer station located at 8642 Elder Creek Road, Sacramento, CA, without charge to the Service Recipient or CITY. CONTRACTOR will display samples of Approved Sharps Containers at the transfer station at a price no greater than its direct costs. CONTRACTOR will maintain a record of the delivery satisfactory to CITY, and instruct the resident how to discard the Service Recipient's Approved Sharps Container at the transfer station, such as in a kiosk.

ARTICLE 9. City Collection Service

9.01 City Collection Service. Except as set forth below, the CONTRACTOR shall provide City Collection Service to all City Service Units in the Service Area. This service will be governed by the following terms and conditions:

9.01.1 Hours of Collection. City Collection Service shall be provided, commencing no earlier than 4:00 a.m., provided the City Service Unit is located a minimum of one hundred (100) feet from residential property, and terminating no later than 9:00 p.m., Monday through Friday with service on Saturday and Sunday starting no earlier than 7:30 a.m. The hours of Collection may be extended due to extraordinary circumstances or conditions with the prior written consent of the Contract Administrator.

9.01.2 Accessibility. CONTRACTOR shall Collect all Gray, Blue or Green Containers that are readily accessible to the CONTRACTOR'S crew and vehicles and not blocked. However, CONTRACTOR shall provide "push services" as necessary during the provision of City Collection Services. Push services shall include, but not be limited to dismounting from the Collection vehicle, moving the Gray, Blue, or Green

Containers from their storage location for Collection and returning the Gray, Blue, or Green Containers to their storage location.

9.01.3 Manner of Collection. The CONTRACTOR shall provide City Collection Service with as little disturbance as possible and shall leave Gray, Blue, or Green Containers at the same point it originally located without obstructing alleys, roadways, driveways, sidewalks or mail boxes.

9.01.4 Purchase and Distribution of Container(s).

9.01.4.1 The CONTRACTOR shall be responsible for the purchase and distribution of Gray, Blue, or Green Container(s) to all City Service Units in the Service Area. The size of the Gray, Blue, or Green Container(s) to be distributed and the frequency of Collection shall be in accordance with the requirements set forth in **Exhibit 4** as may be amended from time-to-time.

9.01.4.2 CONTRACTOR is responsible for the purchase and distribution of fully assembled and functional Kitchen Food Waste Pails to City Service Units in the Service Area. The initial distribution of Kitchen Food Waste Pails must be completed on Work Days between June 27, 2022 and July 22, 2022 along with educational outreach materials as approved by City, and will be provided at no additional charge (one (1) pail per City Service Unit).

9.01.5 Replacement of Gray, Blue, and Green Container(s). Care shall be taken by CONTRACTOR'S employees to prevent damage to Containers by unnecessary rough treatment. However, any Gray, Blue, or Green Container(s) damaged by the CONTRACTOR shall be replaced by the CONTRACTOR, at CONTRACTOR's expense, within five (5) Work Days at no cost or inconvenience to the Service Recipient.

9.01.5.1 Upon notification to the CONTRACTOR by the CITY that a City Service Units' Container has been lost, stolen or that it has been damaged beyond repair through no fault of the CONTRACTOR, the CONTRACTOR shall deliver a replacement Gray, Blue, or Green Container to such Service Unit within five (5) Work Days.

9.01.6 Gray, Blue, and Green Container(s). CONTRACTOR shall be responsible for repair of Containers. Within five (5) Work Days of notification by the CITY of the need for such repairs, the CONTRACTOR shall repair the Container or if necessary, remove the Container for repairs and deliver a replacement Gray, Blue, or Green Container. Gray, Blue, and Green Container repair shall also include the removal of graffiti from the Container.

9.01.7 Gray, Blue, and Green Container Exchange. Upon notification to the CONTRACTOR by the CITY that a change in the size, or number of the Gray, Blue, or Green Container, or a change in the number of Gray, Blue, or Green Containers is required, the CONTRACTOR shall deliver such Containers to such City Service Unit within five (5) Work Days.

9.01.8 Ownership of Gray, Blue, and Green Containers. Ownership of Gray, Blue, and Green Containers distributed by the CONTRACTOR shall rest with the CONTRACTOR except in the case of the termination of the Contract due to the default of the CONTRACTOR. Under such circumstances, the Gray, Blue, and Green Containers, shall, at City's sole discretion and at no additional cost to the CITY, become the property of the CITY and CONTRACTOR shall submit to the Contract Administrator an inventory of Gray, Blue, and Green Containers, including their locations, together with all proof of ownership, and shall take all steps necessary to transfer ownership to CITY.

9.01.9 Annual Cleaning. Once each Contract Year, at no charge to the CITY, CONTRACTOR shall clean all Gray, Blue, or Green Containers at the City Service Unit's premises or shall replace the dirty Containers with clean Containers and remove the dirty Containers for cleaning.

9.02 City Hall Recycling Program. CONTRACTOR shall maintain a City Hall Recycling Program that includes Collection of Organic Recyclable Materials and Recyclable Materials. CONTRACTOR will educate CITY staff on the importance of source separating Recyclable Material and Organic Recyclable Materials from Garbage. CONTRACTOR shall provide educational material and signage annually for the City Hall Recycling Program at no additional cost to the CITY.

9.03 City Garbage Collection Service.

9.03.1 Conditions of Service. The CONTRACTOR shall provide City Garbage Collection Service to all City Service Units in the Service Area whose City Garbage is properly containerized in Gray Containers, where the Gray Containers are accessible as set forth in Section 9.01.2.

9.03.2 Size and Frequency of Service. The size of the containers and the frequency of this service shall be provided as deemed necessary and as determined between the CONTRACTOR and the Contract Administrator, but such service shall be received no less than one (1) time per week with no exception for holiday(s) as set forth herein, except that Collection service scheduled to fall on a holiday may be rescheduled as determined between the Contract Administrator and the CONTRACTOR as long as the minimum frequency requirement is met. Service may be provided by Garbage Bin or Cart at the option of the CITY.

9.03.3 Disposal Facility. All City Garbage, Collected as a result of performing City Garbage Collection Service shall be transported to, and disposed of, at the Disposal Facility. In the event the Disposal Facility is closed on a Work Day, the CONTRACTOR shall transport and dispose of City Garbage at such other legally permitted disposal facility as designated in writing by CITY. Failure to comply with this provision shall result in the levy of an administrative charge as specified in Article 21 of this Contract and may result in the CONTRACTOR being in default under this Contract.

9.04 City Recycling Collection Service. This service will be governed by the following terms and conditions:

9.04.1 Conditions of Service. The CONTRACTOR shall provide City Recycling Collection Service to all City Service Units in the Service Area whose Recyclable Materials are properly containerized in Blue Containers, except as set forth in Section 9.04.3 below, where the Blue Containers are accessible as set forth in Section 9.01.2.

9.04.2 Size and Frequency of Service. The size of the containers and the frequency of this service shall be provided as deemed necessary and as determined between the CONTRACTOR and the Contract Administrator, but such service shall be received no less than one (1) time per week with no exception for holiday(s) as set forth herein, except that Collection service scheduled to fall on a holiday may be rescheduled as determined between the Contract Administrator and the CONTRACTOR as long as the minimum frequency requirement is met. Service may be provided by Bin or Cart at the option of the CITY.

9.04.3 Recycling - Improper Procedure. Except as set forth below, the CONTRACTOR shall not be required to Collect Recyclable Materials if the City does not segregate the Recyclable Materials from City Garbage. If Recyclable Materials are contaminated through commingling with City Garbage, the CONTRACTOR shall, if practical, separate the City Garbage from the Recyclable Materials. The Recyclable Materials shall then be Collected and the City Garbage shall be left in the Blue Container along with a Non-Collection Notice of why the City Garbage is not considered a Recyclable Material. However, in the event the Recyclable Materials and City Garbage are commingled to the extent that they cannot easily be separated by the CONTRACTOR or the nature of the City Garbage renders the entire Blue Container contaminated, the CONTRACTOR will leave the Blue Container un-emptied along with a Non-Collection Notice which contains instructions on the proper procedures for setting out Recyclable Materials. Upon notification from the Contract Administrator, CONTRACTOR shall Collect the contaminated Recyclable Materials as part of the next regularly scheduled City Garbage Collection and dispose of it at the Disposal Facility.

9.05 Material Recovery Facility. All Recyclable Materials Collected as a result of performing Recycling Collection Services shall be delivered to the Material Recovery Facility, as specified and determined by CONTRACTOR at its sole discretion. Failure to comply with this provision shall result in the levy of an administrative charge as specified in Article 21 of this Contract and may result in the CONTRACTOR being in default under this Contract.

9.06 Organic Recyclable Materials Collection Service. This service will be governed by the following terms and conditions:

9.06.1 Conditions of Service. The CONTRACTOR shall provide Organic Recyclable Material Collection Service to all City Service Units in the Service Area whose Organic Recyclable Material is properly containerized in Green Containers, where the Green Containers are accessible as set forth in Section 9.01.2.

9.06.2 Size and Frequency of Service. The size of the containers and the frequency of this service shall be provided as deemed necessary and as determined between the CONTRACTOR and the Contract Administrator, but such service shall be received no less than one (1) time per week with no exception for holiday(s) as set forth herein, except that Collection service scheduled to fall on a holiday may be rescheduled as determined between the Contract Administrator and the CONTRACTOR as long as the minimum frequency requirement is met. Service may be provided by Bin or Cart at the option of the CITY.

9.06.3 Organic Recyclable Material Processing Facility. CONTRACTOR must ensure that all Organic Recyclable Material collected pursuant to this Contract is diverted from the landfill in accordance with AB 939, AB 1826, AB 1594, SB 1016 and SB 1383, and other Applicable Law. CONTRACTOR shall deliver all Collected Organic Recyclable Material to a fully permitted Organic Recyclable Material Processing Facility, a fully permitted Transfer station, or other properly permitted facility. All expenses related to Organic Recyclable Material processing and marketing will be the sole responsibility of CONTRACTOR.

9.07 City Event Services. CONTRACTOR shall provide Garbage Collection and disposal services, Recyclable Material Collection and processing services, Organic Recyclable Material Collection and processing services, and portable toilets at up to ten (10) CITY-sponsored or supported events as requested by CITY. Such services shall be provided in such a manner that all Garbage, Recyclable, Organic Recyclable Material, and portable toilet needs of the event are adequately and properly provided for by CONTRACTOR at no cost of any kind to the CITY or the CITY-supported sponsor of the event.

9.08 Large Item Collection Service. Large Item Collection Service shall be governed by the provisions of Section 8.11.

ARTICLE 10. Other Collection Service

10.01 Annual Contribution. CONTRACTOR shall continue to pay to the CITY the amount of $4,000 to assist the City in funding the cost of the City shopping cart removal program annually on April 1 during the term of this Contract.

10.02 Debris Collection Service.

10.02.1 Conditions of Service. CONTRACTOR shall provide Debris Collection Service within the Service Area as requested by the CITY. In the event that the

CONTRACTOR is notified by phone or in writing by the CITY of the location of abandoned debris, CONTRACTOR shall remove such item within forty-eight (48) hours of receipt of such notification.

10.02.2 CONTRACTOR shall provide two thousand (2,000) cubic yards per Contract Year of Debris Collection Service at no additional charge to the City. The CONTRACTOR shall provide Debris Collection Service in excess of two thousand (2,000) cubic yards at the direction of the Contract Administrator, for a charge to the CITY not to exceed the rate set forth in **Exhibit 1**. The cubic yard charge to the CITY for Debris Collection Service in excess of the two thousand (2,000) cubic yard annual limit shall be adjusted annually in accordance with the percentage amounts identified in Section 4.01.5.

10.03 Special Clean-Up Service.

10.03.1 CONTRACTOR shall, in response to the written request of the Contract Administrator, deliver and collect Roll-Off Containers for use in special clean-up programs. CONTRACTOR, at the City Contract Administrators direction shall provide up to four (4) Special Clean-up Service events per year, with a total collection not to exceed One Thousand, Two Hundred (1,200) cubic yards in any Contract Year. Each clean-up event shall consist of a single Collection day beginning at 6:00 a.m. and ending at 6:00 p.m. The Contract Administrator shall notify CONTRACTOR in writing not less than five (5) calendar days prior to the date of the service. The notice to CONTRACTOR shall specify the date of delivery and Collection of the Roll-Off Containers, the location(s) for delivery, and the number of and size of the Roll-Off Containers to be delivered. As part of this service, CONTRACTOR shall provide on-site supervision at all times the Roll-Off Containers are available for Special Clean-Up Service. At such time as the Roll-Off Container is full, but not later than the end of the Special Clean-Up Service day, CONTRACTOR shall transport and deliver the Collected materials to the Disposal Facility, the Materials Recycling Facility, or such other facility as is appropriate for the disposition of the materials and approved by the Contract Administrator.

10.03.2 With the prior written consent of the Contract Administrator, CONTRACTOR may provide for the Collection of materials at a Special Clean-up Service event in a vehicle or container other than a Roll-Off Container. However, in the event the CONTRACTOR elects to utilize this alternative Collection process, CONTRACTOR is responsible for obtaining documentation of the weight of the materials Collected, diverted and disposed in a manner that is acceptable to the CITY.

10.03.3 If requested by CITY, CONTRACTOR shall Collect and dispose of material of unknown origin that has been disposed of in the Service Area. Such Collection of material shall fall within the scope of Special Clean-up Service and the associated cubic yard limitations. In the event the CITY requests this service after the CONTRACTOR has met the annual cubic yard limitation, CONTRACTOR and CITY shall agree on a rate for such service.

ARTICLE 11. Collection Routes

11.01 Collection Service Routes. Thirty (30) days prior to commencement of Collection Services, the CONTRACTOR shall provide the CITY with maps precisely defining Collection routes, together with the days and the times at which Collection shall regularly commence.

11.02 Service Route Changes. The CONTRACTOR shall submit to the CITY, in writing, any proposed route change (including maps thereof) not less than thirty (30) calendar days prior to the proposed date of implementation. The CONTRACTOR shall not implement any route changes without the prior review of the Contract Administrator. If the change will change the Collection day for a Service Recipient, the CONTRACTOR shall notify those Service Recipients in writing of route changes not less than thirty (30) days before the proposed date of implementation.

11.02.1 Collection Route Audits. The CITY reserves the right to conduct audits of CONTRACTOR'S Collection routes. The CONTRACTOR shall cooperate with the CITY in connection therewith, including permitting CITY employees or agents, designated by the Contract Administrator, to ride in the Collection vehicles in order to conduct the audits. The CONTRACTOR shall have no responsibility or liability for the salary, wages, benefits or worker compensation claims of any person designated by the Contract Administrator to conduct such audits.

ARTICLE 12. Minimum Performance and Diversion Standards – Collection Services

12.01 Performance and Financial Review. CITY will contract with a solid waste consultant for an independent financial and performance review of Collection Services in calendar years 2020 and 2023. The primary objectives of the review are to ensure that service fees and franchise fees have been correctly calculated and paid, that diversion percentages have been properly calculated and that the CONTRACTOR is delivering services in accordance with the performance, reporting and diversion requirements of the Contract. CONTRACTOR agrees that these reviews are in the best interest of the CITY and CONTRACTOR and shall cooperate with CITY'S consultant during the provision of these reviews by providing access to all requested records and data in a timely manner.

12.01.1 CITY and CONTRACTOR shall be responsible for sharing the cost of the performance and financial reviews, however, CONTRACTOR'S share of the cost of each review shall be limited to the lesser of one half (1/2) of the cost of the review or Ten Thousand Dollars ($10,000).

ARTICLE 13. Collection Equipment

13.01 Collection Equipment Specifications.

13.01.1 General Provisions. All equipment used by CONTRACTOR in the performance of Collection Services under this Contract shall be the highest quality available. The vehicles shall be designed and operated so as to prevent Collected materials from escaping from the vehicles. Hoppers shall be closed on top and on all sides with screening material to prevent Collected materials from leaking, blowing or falling from the vehicles. All trucks and containers shall be watertight and shall be operated so that liquids do not spill during Collection or in transit.

13.01.2 All Collection Service vehicles utilized by CONTRACTOR pursuant to this Contract shall provide fully-automated Residential and City Collection Service except where such service is not feasible because of topographic or other physical factors. Where fully-automated Residential and City Collection Service is not feasible, CONTRACTOR shall consult with the Contract Administrator regarding the Residential or City Collection Service equipment to be utilized.

13.01.3 Compressed Natural Gas Vehicles. CONTRACTOR replaced all Collection vehicles with clean burning Compressed Natural Gas ("CNG") by July 1, 2019, for the provision of Residential Garbage Collection Service, Residential Recycling Collection Service, Organic Recyclable Material Collection Service, City Garbage Collection Service, City Recycling Collection Service, and City Organic Recyclable Material Collection Service. All new Collection vehicles shall also burn CNG, for the provision of Collection Services under this Contract.

13.01.4 Large Items. Vehicles used for Collection of Large Items shall not use compactor mechanisms or mechanical handling equipment that may release Freon or other gases from pressurized appliances.

13.01.5 Registration. All vehicles used by CONTRACTOR in providing Collection Services under this Contract, except those vehicles used solely on CONTRACTOR'S premises, are to be registered with the California Department of Motor Vehicles.

13.01.6 Safety Markings. All Collection equipment used by CONTRACTOR shall have appropriate safety markings including, but not limited to, highway lighting, flashing and warning lights, clearance lights, and warning flags. All such safety markings shall be subject to the approval of the CITY and shall be in accordance with the requirements of the California Vehicle Code, as may be amended from time to time.

13.01.7 Vehicle Signage and Painting. Collection vehicles shall be painted and numbered consecutively without repetition and shall have the CONTRACTOR'S name, CONTRACTOR'S customer service telephone number, and the number of the vehicle painted in letters of contrasting color, at least four (4) inches high,

on each side and the rear of each vehicle. No advertising shall be permitted other than the name of the CONTRACTOR except promotional advertisement of the Recyclable Materials and Organic Recyclable Material programs. CONTRACTOR shall repaint all vehicles (including vehicles striping) during the term of this Contract on a frequency as necessary to maintain a positive public image as reasonably determined by the Contract Administrator. If requested by the CITY, CONTRACTOR shall display the name of the City and City logo on the Collection vehicles.

13.01.8 Container Signage, Painting, and Cleaning. All metal Containers of any service type furnished by the CONTRACTOR shall be either painted or galvanized. All metal or plastic Containers shall display the CONTRACTOR'S name, CONTRACTOR'S customer service telephone number, and the number of the Container and shall be kept in a clean and sanitary condition. Such bins shall be steam cleaned by the CONTRACTOR as frequently as necessary so as to maintain them in a sanitary condition.

13.01.9 Collection Vehicle Noise Level. All Collection operations shall be conducted as quietly as possible and shall conform to applicable federal, state, county and CITY noise level regulations, including the requirement of Chapter 6.68 of the Rancho Cordova Municipal Code (*noise ordinance*). In the event of repeat occurrences of noise levels in excess of the limit specified in the CITY'S municipal code, CONTRACTOR shall pay Liquidated Damages in accordance with Article 21.

13.02 Vehicle Registration, Licensing and Inspection. No later than April 1, each Contract Year, CONTRACTOR shall submit documentation to the Contract Administrator to verify that each of the CONTRACTOR'S Collection vehicles is in compliance with all registration, licensing and inspection requirements of the California Highway Patrol, the California Department of Motor Vehicles, The California Air Resources Board and any other Applicable Laws or regulations. CONTRACTOR shall not use any vehicle to perform Collection Services that is not in compliance with applicable registration, licensing and inspection requirements.

13.03 Equipment Maintenance. CONTRACTOR shall maintain Collection equipment in a clean condition and in good repair at all times. All parts and systems of the Collection equipment shall operate properly and be maintained in a condition satisfactory to CITY. CONTRACTOR shall wash all Collection vehicles at least once a week.

13.04 Maintenance Log. CONTRACTOR shall maintain a maintenance log for all Collection vehicles. The log shall at all times be accessible to CITY by physical inspection upon request of Contract Administrator, and shall show, at a minimum, each vehicle's CONTRACTOR assigned identification number, date purchased or leased, dates of performance of routine maintenance, dates of performance of any additional maintenance, and description of additional maintenance performed.

13.04.1 Equipment Inventory. Annually at the request of the Contract Administrator, CONTRACTOR shall submit, either by Fax or e-mail, an updated inventory of Collection vehicles and major equipment used by CONTRACTOR for Collection or transportation and performance of services under this Contract in a manner consistent with **Exhibit 7**. The inventory shall indicate each Collection vehicle by CONTRACTOR assigned identification number, DMV license number, the age of the chassis and body, type of fuel used, the type and capacity of each vehicle, the number of vehicles by type, the date of acquisition, the decibel rating and the maintenance and rebuild status. Annually at the request of the Contract Administrator, CONTRACTOR shall submit, either by Fax or e-mail, an updated inventory. Each inventory shall also include the tare weight of each vehicle as determined by weighing at a public scale and not at a disposal or other facility scale used by CONTRACTOR. Each vehicle inventory shall be accompanied by a certification signed by CONTRACTOR that all Collection vehicles meet the requirements of this Contract.

13.04.2 Reserve Equipment. The CONTRACTOR shall have available to it, at all times, reserve Collection equipment which can be put into service and operation within one (1) hour of any breakdown. Such reserve equipment shall correspond in size and capacity to the equipment used by the CONTRACTOR to perform the contractual duties.

ARTICLE 14. Contractor's Office

14.01 CONTRACTOR'S Office. The CONTRACTOR shall maintain an office where complaints can be received and which provides toll-free telephone access for Service Recipients living in the City of Rancho Cordova. Such office shall be equipped with sufficient telephones that all Collection Service and Street Sweeping Service related calls received during normal business hours are answered by an employee within five (5) rings, and shall have responsible persons in charge during Collection hours and shall be open during such normal business hours, 7:00 a.m. to 5:00 p.m. on all Work Days and on those Saturdays when Collections Services are required as a result of the holiday Collection policy set forth in Section 3.08 of this Contract. The CONTRACTOR shall provide either a telephone answering service or mechanical device to receive Service Recipient inquiries during those times when the office is closed. Calls received after normal business hours shall be addressed the next Work Day morning.

14.01.1 Emergency Contact. The CONTRACTOR shall provide the Contract Administrator with an emergency phone number where the CONTRACTOR can be reached outside of the required office hours.

14.01.2 Multilingual/TDD Service. CONTRACTOR shall at all times maintain the capability of responding to telephone calls in English, Spanish and Russian. CONTRACTOR shall at all times maintain the capability or responding to telephone calls through Telecommunications Device for the Deaf (TDD) Services.

14.01.3 Service Recipient Calls. During office hours, CONTRACTOR shall maintain a telephone answering system capable of accepting at least fifteen (15) incoming calls at one time. CONTRACTOR shall record all calls including any inquiries, service requests and complaints into a customer service log.

14.01.4 All incoming calls will be answered within five (5) rings. Any call "on-hold" in excess of 1.5 minutes shall have the option to remain "on-hold" or to be switched to a message center where Service Recipient can leave a message. CONTRACTOR'S customer service representative shall return Service Recipient calls. For all messages left before 3:00 p.m., all "call backs" shall be attempted a minimum of one time prior to 5:00 p.m. on the day of the call. For messages left after 3:00 p.m., all "call backs" shall be attempted a minimum of one time prior to noon the next Work Day. CONTRACTOR shall make a minimum of three (3) attempts within twenty-four hours of the receipt of the call. If CONTRACTOR is unable to reach the Service Recipient on the next Work Day, the CONTRACTOR shall send a postcard to the Service Recipient on the second Work Day after the call was received, indicating that the CONTRACTOR has attempted to return the call.

ARTICLE 15. Street Sweeping Services

15.01 Street Sweeping Service. Throughout the Term of the Contract, CONTRACTOR shall provide Street Sweeping Services as set forth in this Contract. If CONTRACTOR enters into a subcontract for Street Sweeping Services, pursuant to Section 34.02, CONTRACTOR shall require the subcontractor to comply with all standards and requirements set forth in this Contract for the provision of Street Sweeping Services.

15.02 Compensation for Street Sweeping Services. Contractor shall collect the Street Sweeping Fee set forth in **Exhibit 1** from Residential Service Units and that Street Sweeping Fee shall be full compensation for all Street Sweeping Services provided by the Contract.

15.03 Manner of Service. CONTRACTOR shall provide a complete sweep of all Curb Miles on all Residential Streets and Commercial Streets located within the Service District. Within any Curb Mile, CONTRACTOR shall be responsible for sweeping all curbs including Median Islands, traffic calming islands and the corners from any cross street intersecting the subject street. Street Sweeping Services shall be performed in a manner such that all Sweep Waste is properly removed from all swept areas, including intersections, so that the street is in a clean condition. A clean condition is defined as the absence of Sweep Waste in the streets and gutters upon the completion of the sweeping operation in a manner that is consistent with industry standards and best management practices. To the extent needed to properly remove Sweep Waste, CONTRACTOR shall make multiple passes, or as necessary provide hand sweeping or vacuuming services.

15.04 Traffic Laws. CONTRACTOR shall obey all laws governing the operation of the street sweepers on a public street, and shall perform its operations so that sweepers are traversing their routes in the normal direction of traffic.

15.05 Parked Vehicles. In the event that CONTRACTOR'S operations are impeded by parked vehicles, CONTRACTOR shall bypass said parked vehicles. In such instances, the bypassed areas shall be considered as swept Curb Miles for purposes of calculating compensation.

15.06 Call Backs. Whenever, in the sole opinion of the CITY Administrator, a section of street is inadequately swept such that all Sweep Waste has not been properly removed as required by Section 15.03, CONTRACTOR shall re-sweep the section in question within twenty-four (24) hours of receipt of verbal or written notification from the CITY Administrator.

15.07 Water. CONTRACTOR shall obtain water services from the appropriate water utility companies for the water necessary in the street sweeping operation. The cost of the water shall be borne by CONTRACTOR. The proper volume and pressure shall be supplied by the sweeper at all times for adequate dust control during the sweeping operation. If reasonably available, CITY may direct CONTRACTOR to use reclaimed or recycled water due to increased availability of reclaimed water.

15.08 Sweeper Speed. CONTRACTOR shall operate the sweepers at a speed of not more than six (6) to ten (10) miles per hour when sweeping or when the sweeper brooms are down. CITY will use industry standards, Environmental Protection Agency information, and the sweeper manufacturer's recommendation on the speed of sweepers when considering speeds greater than ten (10) miles per hour.

15.09 Width of Sweeper Path. CONTRACTOR shall sweep a path, with all brooms down, with a width of not less than nine (9) feet unless parked vehicles, structures, or other objects prohibit the safe sweeping of this path width. The path shall begin at the face of the curb, and include the flow line of the gutter. Unless blocked by parked cars, or Containers, the face of the curb and gutter shall always be included within the sweeper path. On those streets with no curb, the width of the sweeper path shall be not less than nine (9) feet measured from the edge of the pavement toward the center of the street.

15.10 Intersections. At all intersections, where debris has accumulated forming "invisible" islands, extra sweeper passes must be made to eliminate debris accumulation.

15.11 Frequency and Day of Service. CONTRACTOR shall provide Street Sweeping Service for each Curb Mile in the Service District once every month to Residential Streets during the months of January through October, and twice every month during November and December. CONTRACTOR shall provide Street Sweeping Service for each Curb Mile in the Service District twice every month to Commercial Streets.

However, in those instances where the scheduled Street Sweeping Service day falls on a holiday, CONTRACTOR shall adjust the route schedule as set forth in Section 3.08.

15.12 Hours and Days of Service. CONTRACTOR shall provide Street Sweeping Service on Residential Streets commencing no earlier than 6:00 a.m. and terminating no later than 4:00 p.m., Monday through Friday, with no service on Saturday or Sunday. Sweeping in commercial areas shall occur between the hours of 10:00 p.m. and 6:00 a.m. CONTRACTOR shall provide Street Sweeping Service on Commercial Streets commencing no earlier than 10:00 p.m. and terminating no later than 6:00 a.m. The hours, days, or both of service may be extended or suspended due to extraordinary circumstances or conditions with the prior verbal consent of the CITY Administrator.

15.13 Disposal of Sweep Waste. It shall be the responsibility of CONTRACTOR to transfer and dispose of Sweep Waste in a manner that complies with applicable local, state and federal laws, regulations and requirements. CONTRACTOR shall bear all costs associated with the hauling and disposal of Sweep Waste.

15.14 Spillage. During hauling, all Sweep Waste shall be contained, covered or enclosed so that leaking, spilling and blowing of the Sweep Waste is prevented. CONTRACTOR shall be responsible for the immediate cleanup of any spillage caused by CONTRACTOR.

15.15 Changes in Streets. CITY Administrator may require some streets to be temporarily removed from or added to the list of scheduled streets swept under this Agreement. Conditions which may cause the CITY Administrator to order a street or an area to be bypassed temporarily include the following:

1. Construction or development on or along a street;
2. Pavement maintenance activities;
3. Inclement weather when running water is in the gutter or street such that sweeping is ineffective;
4. Special sweeping on alternative schedule;
5. Other legitimate reasons that make sweeping impractical as determined by the CITY Administrator; and
6. Special Events.

In the event that the CITY Administrator notifies CONTRACTOR not to sweep on a temporary basis, the CITY Administrator shall notify CONTRACTOR of the temporary suspension of service at least one (1) Work Day prior to the scheduled sweep, except in the case when the reason for not performing service is due to inclement weather, the CITY Administrator may notify CONTRACTOR at any time.

15.16 Obstructions. The equipment operator shall maintain a log showing the locations of roadways that cannot be adequately swept due to obstructions, including low hanging tree limbs or deserted vehicles parked on CITY streets. CONTRACTOR shall report these locations to the CITY Administrator within forty-eight (48) hours.

15.17 Hazardous Waste. CONTRACTOR shall not be required to remove any Hazardous Waste from the street surface. CONTRACTOR shall immediately contact City Administrator if Hazardous Wastes are encountered during the provision of Street Sweeping Services.

15.18 Coordination with Other City Programs. This Agreement requires the CONTRACTOR to establish and maintain good working relationships with various work units in the City. The CONTRACTOR shall be responsible for cooperating and coordination with the following CITY programs: residential Garbage, Recycling, and Organic Recyclable Material collection programs; road construction, paving and maintenance projects; and special City events, including parades, bicycle races, street fairs, etc.

15.19 Street Sweeping Service Routes.

15.19.1 Provision of Service Route Maps. No later than December 1, 2017, CITY shall provide CONTRACTOR with existing Street Sweeping Service District maps precisely defining the Sweeper Routes currently in use. The route maps shall include the days of the month sweeping shall occur on Residential Streets and Commercial Streets in the Service District. CONTRACTOR shall provide Street Sweeping Services in accordance with those maps unless a route change is first approved by CITY pursuant to section 15.19.2, below.

15.19.2 Route Service Changes. CONTRACTOR shall submit to the CITY Administrator, in writing, any proposed route change (including maps thereof) not less than sixty (60) calendar days prior to the proposed date of implementation. The CITY Administrator may provide written comments to CONTRACTOR on such proposed change no later than ten (10) Work Days after receipt of the proposal from CONTRACTOR, and CONTRACTOR shall revise the routes to reflect such comments and return them to the CITY Administrator within ten (10) Work Days of receipt of such comments, for CITY corroboration. CONTRACTOR shall not implement any route changes without the prior approval of the CITY Administrator.

15.19.3 Additional Work. Should the City elect to extend the street sweeping program to include newly constructed streets after the effective date of the Agreement, CONTRACTOR will provide Street Sweeping Services for those streets. City shall provide CONTRACTOR notice of the addition of such streets and CONTRACTOR provide City with amended Street Sweeping routes incorporating the new streets into the Street Sweeping schedule for City's review and approval

15.20 Equipment Specifications

15.20.1 General Provisions. All Street Sweeping Service equipment used by CONTRACTOR in the performance of services under this Agreement shall be the highest quality available. The vehicles shall be designed and operated so as to prevent materials from escaping from the vehicles.

15.20.2 Vehicle Compliance. During the term of this Agreement, CONTRACTOR shall provide street sweeping vehicles in full compliance with local, state and federal requirements, including but not limited to, the California Air Resources Board Heavy Duty Engine Standards, the Federal EPA's Highway Diesel Fuel Sulfur regulations; and any other applicable air pollution control laws.

15.20.3 Street Sweeping Vehicles. CONTRACTOR shall maintain, at all times, sufficient street sweepers such that no sweeper is ever assigned to more than one (1) sweep route on any Work Day.

15.20.4 Regenerative Air-Based Sweepers. CONTRACTOR shall use regenerative air-based sweepers that gather Sweep Waste into self-contained hoppers for eventual ejection at the disposal location. All sweepers shall have a dust suppression system in operation while conducting the work. Swept streets shall be clear of all dust, dirt, gravel, sand and all other debris from curb to curb in a manner that is consistent with best management practices and industry standards

15.20.5 Dual Gutter Brooms. Sweeping vehicles must be equipped with dual gutter brooms no shorter than seven (7) inches, which shall be operating during all sweeping operations, and a main broom no shorter than eight (8) inches capable of sweeping at minimum a nine (9)-foot path, or vacuum sweep if approved by the CITY Administrator.

15.20.6 Condition of Equipment. Sweeping vehicles must not be more than five (5) years old at the time of execution of this Agreement, and no more than (7) years old at any point for the duration of the Agreement. Machines must be in excellent working condition capable of removing Sweep Waste throughout the term of this Agreement. The outside body of the machine must be free from dents and large scratches, and paint must be well maintained.

15.20.7 Tire Scuffing. The use of a steel plate on the sweeper wheel to prevent tire scuffing against the curb will not be permitted.

15.20.8 Safety Markings and Devices. Sweeping vehicles used by CONTRACTOR in the performance of this Agreement shall have appropriate safety markings, including but not limited to, highway lighting, flashing and warning lights, and clearance lights. All such safety markings and devices shall be in accordance with the requirements of the California Vehicle Code, as may be amended periodically.

15.20.9 Communications Equipment. CONTRACTOR shall, prior to rendering any Street Sweeping Services, equip each sweeper with communications equipment in order to provide direct communication among the equipment operators, field supervisor, and CITY Administrator. This equipment shall be at the CONTRACTOR'S sole

cost and expense and shall be functional at all times. CONTRACTOR shall be responsible for normal maintenance of all communications equipment during the term of the Agreement.

15.20.10 Sound Control Requirements. The noise level from the CONTRACTOR'S operations, during hours of operation shall not exceed 86 decibels at a distance of 50 feet in all residential areas**.** Said noise level requirement shall apply to all equipment used to provide Street Sweeping Services under the terms of this Agreement. The use of loud sound signals shall be avoided in favor of light warnings, except those required by safety laws for the protection of personnel.

15.20.11 Vehicle Signage and Painting. All Street Sweeping Service vehicles shall be painted and numbered consecutively without repetition and shall have CONTRACTOR'S name, telephone number, and the number of the vehicle painted in letters of contrasting color, at least four (4) inches high, on each side and on the rear of each vehicle. CONTRACTOR shall repaint all sweepers during the term of this Agreement on a frequency as necessary to maintain a positive public image as reasonably determined by the CITY Administrator.

15.20.12 Vehicle Registration, Licensing and Inspection. All Street Sweeping vehicles used by CONTRACTOR in the performance of services under this Agreement shall be in compliance with all registration, licensing and inspection requirements of the California Highway Patrol, the California Department of Motor Vehicles, and any other applicable laws or regulations. CONTRACTOR shall maintain copies of all certificates and reports evidencing compliance, and shall make such certificates and reports available for inspection upon request by the CITY Administrator. CONTRACTOR shall not use any vehicle to perform Sweeping Services that is not in compliance with applicable registration, licensing and inspection requirements.

15.20.13 Equipment Maintenance. CONTRACTOR shall maintain all Street Sweeping vehicles in a clean condition and in good repair at all times. All parts and systems of the collection equipment shall operate properly and be maintained in good working order. CONTRACTOR shall wash all Street Sweeping vehicles at least once per week using recycled water to the extent feasible. All washings shall be conducted in a manner that conforms to the BMP Guidelines for Non-Point Source Pollutants in the publication entitled *Storm Water Best Management Practices Handbook for Industrial Commercial*.

15.20.14 Maintenance Log. CONTRACTOR shall maintain a maintenance log for all Street Sweeping vehicles. The log shall at all times be accessible to CITY via computer, or by physical inspection upon the request of the CITY Administrator. The log shall show, at a minimum, for each vehicle the CONTRACTOR-assigned identification number, date purchased or initial lease, dates of performance of routine maintenance, dates of performance of any additional maintenance, and description of additional maintenance performed.

15.20.15 Equipment Inventory. On or before August 15, 2017, CONTRACTOR shall provide to CITY an initial inventory of Street Sweeping vehicles to be used by CONTRACTOR for the provision of services under this Agreement in a manner consistent with **Exhibit 7**. The inventory shall indicate each vehicle by CONTRACTOR assigned identification number, DMV license number, the age of the chassis and body, mileage, type of fuel used, manufacturer, the date of acquisition, and the maintenance and rebuild status. CONTRACTOR shall submit to CITY an updated inventory annually on or before April 1 of each Contract Year. Each vehicle inventory shall be accompanied by a certification by CONTRACTOR that all vehicles meet the requirements of this Agreement.

15.20.16 Reserve Equipment. CONTRACTOR shall have available to it at all times reserve Street Sweeping Service equipment which can be put into service and operation within one (1) hour of any breakdown. Such reserve equipment shall correspond in size and capacity to the equipment used by CONTRACTOR to perform CONTRACTOR's duties under this Contract.

15.21 Protection/Restoration of Public and Private Property. CONTRACTOR shall be responsible for protecting existing improvements, adjacent property, utility and other facilities, and trees and plants from injury or damage resulting from CONTRACTOR'S operations. CONTRACTOR shall repair or replace all existing improvements, which are damaged or removed as a result of sweeping operations. Trees, lawns, and shrubbery which are damaged or removed because of the CONTRACTOR'S operations shall be restored or replaced in nearly the original condition and location as reasonably possible. That portion of trees or shrubs extended into the street past the face of the curb is excluded.

15.22 Accidents. Any and all accidents, damage to public or private property, or other noteworthy event, regardless of how minor, involving another person, private or public property or vehicle, shall be reported to the CITY Administrator immediately.

15.23 Additional Street Sweeping Services. If during the term of this Agreement, circumstances exist which require work associated with the Street Sweeping Service program that are not specifically provided for in this Agreement, the CITY Administrator may require CONTRACTOR to perform such other associated work ("OAW"). Examples of OAW that CONTRACTOR may be required to perform include:

1. Performance of special sweeps;
2. Flood or storm clean-up;
3. Street sanitation for parades and celebrations;
4. Neighborhood clean-up activities; and
5. Any contingency where sweeper and supporting sweeper equipment could assist in a particular instance.

When the City Administrator authorizes the performance of OAW which requires CONTRACTOR to employ additional personnel, work existing personnel overtime hours, or hire additional equipment, CITY will pay CONTRACTOR for such services as set forth in Exhibit 1. All OAW shall be authorized by the CITY Administrator prior to its being performed.

15.24 Emergency Service Provisions - Route Variances. In the event of a flood, tornado, major storm, earthquake, fire, natural disaster, or other such event, the CITY Administrator may grant CONTRACTOR a variance from regular routes and schedules. As soon as practicable after such event, CONTRACTOR shall advise the CITY Administrator when it is anticipated that normal routes and schedules can be resumed. The CITY shall make an effort through the local news media to inform the public when regular services may be resumed.

15.25 Reporting Requirements. CONTRACTOR shall submit reports with all data as described in **Exhibit 8**. CONTRACTOR shall submit to the CITY Administrator quarterly and annual reports containing the information, in the format and at the times described in **Exhibit 8**.

15.26 Street Sweeping Quality of Work. The standards of performance which CONTRACTOR is obligated to meet are those Street Sweeping practices which leave the serviced area in a debris and dirt free condition in a manner consistent with industry standards and best management practices.

15.27 Administrative Charges. In the event CONTRACTOR fails to perform the services as set forth in this Agreement, CITY may assess an administrative charge against CONTRACTOR in the amounts set forth in Article 21.

ARTICLE 16. Other Services

16.01 Public Outreach and Education Services. CONTRACTOR, at its own expense, shall prepare, submit and implement an annual (calendar year) Public Education and Outreach Program beyond the City's Public Education and Outreach Program. CONTRACTOR will maintain, in its local staff, a Community Outreach Manager in order to achieve an effective public education and outreach program tailored to meet the needs of the City of Rancho Cordova. Public Outreach and Education Services will include, but not limited to, regular attendance at Area Association meetings, working with Schools Districts within the CITY, active participation in CITY sponsored events, development of a dedicated web page on CONTRACTOR'S website, development of City-specific online content in collaboration with the CITY (online newsletters, websites, Facebook, Twitter and other media) and enhanced educational and outreach materials. Beginning September 30, 2022, and annually thereafter, the proposed action plan must be submitted to the CITY for approval no later than September 30th for the following Contract Year. The program must include outreach and educational services that increase diversion and resident participation as approved by the Contract Administrator. Outreach and

educational services should target certain Recyclable Materials or "problem" areas of the CONTRACTOR'S Service Area where improvements can be maximized. Targets of outreach should be based on local trends and recycling patterns based on information obtained by both the Contract Administrator and CONTRACTOR staff. CONTRACTOR will provide three (3) community compost workshops per Contract Year, which shall be a service separate from the four campaigns required as part of the Public Outreach and Education Services Program as described herein. Funds provided by Contractor for the Public Education and Outreach Program shall be at least Thirty-Five Thousand Dollars ($35,000) during calendar year 2022, Thirty Thousand Dollars ($30,000) during calendar year 2023, and Twenty-Five Thousand Dollars ($25,000) during calendar year 2024.

16.01.1 School Outreach Program. CONTRACTOR shall develop a School Outreach Program including, at a minimum, the following two programs: 1.) The sponsorship of three (3) annual scholarships of one thousand dollars ($1,000) each for high school students who reside in the City and are interested in environmental sciences and sustainability issues. The scholarships shall be awarded based on an essay contest which shall be judged jointly by CONTRACTOR and CITY and 2.) A School Program which includes classroom presentations on source reduction, recycling and composting concepts and strategies which shall be presented at schools located in the City. The School Outreach Program shall be provided at no additional cost to the City. CONTRACTOR shall provide the CITY with an outline of the proposed annual School Outreach Program within 30 days of the execution of the Contract.

16.02 City Recycling Coordinator. CONTRACTOR shall provide for the equivalent of one full-time Recycling Coordinator dedicated to providing services to the CITY for the term of the Contract. CONTRACTOR may use a subcontractor to perform some or all of the duties normally assigned to the Recycling Coordinator. The services to be provided by the Recycling Coordinator shall include those agreed to by the Parties and set forth in a work plan approved by the City. During the term of the Contract, CONTRACTOR shall provide CITY with a proposed work plan for the Recycling Coordinator for approval by the City. Alternatively to CONTRACTOR providing a Recycling Coordinator, CITY may, in its sole discretion, determine to procure the services of a Recycling Coordinator independently. In that event, CONTRACTOR shall fund those services in an amount not to exceed $50,000 annually. If CITY decides to exercise the option to hire or contract for a Recycling Coordinator independently, it shall provide sixty days' notice to CONTRACTOR of that decision. CONTRACTOR shall thereafter reimburse CITY for the costs of those services in an amount not to exceed that set forth above. If the CONTRACTOR funds services, the CONTRACTOR will no longer be responsible for the classroom presentation portion of the School Outreach Program referenced in 16.01.1., however CONTRACTOR will remain responsible for funding the three annual scholarships referenced in Section 16.01.1.

16.03 Annual Collection Service Notice. Each year during the term of this Contract, the CONTRACTOR shall publish and distribute a notice to all Residential

Service Units regarding the Residential Collection Service programs. The notice shall contain at a minimum: definitions of the materials to be Collected, procedures for setting out the materials, maps of the Service Area indicating the days when Residential Garbage Collection Service, Large Item Collection Service, Residential Used Oil Collection Service, Residential Recycling Collection Service, Organic Recyclable Material Collection Service, Sharps Collection Service, and HHW Collection Event will be provided, and the CONTRACTOR customer service phone number. The notice shall be provided in English, and other languages as directed by the CITY and shall be distributed by the CONTRACTOR no later than December 1, 2022 and annually thereafter.

16.04 Programs and Services. CONTRACTOR shall provide additional services and programs as requested by CITY at a price to be mutually agreed upon between the CONTRACTOR and the Contract Administrator. In the event the CONTRACTOR and the Contract Administrator cannot reach a mutually agreed upon price for the requested service or program, CITY shall have the right to procure the service of other vendors or contractors to provide the requested service.

16.05 Recovered Organic Recyclable Material Product. CONTRACTOR shall offer and provide free compost for residential use at a location mutually agreed upon between CONTRACTOR and CITY. CONTRACTOR shall offer Rancho Cordova residents up to three (3) cubic yards of compost per Contract Year to be picked up by residents at Elder Creek Transfer Station. City and Contractor will reasonably cooperate in good faith to review availability and purchase of Recovered Organic Products, including Renewable Natural Gas, when available to fuel collection fleet in City.

16.05.1 Deceased Wildlife. CONTRACTOR shall pick up and properly dispose of Deceased Wildlife found on or near CITY right-of-ways the same day of receipt of a service request from CITY if the service request is received by CONTRACTOR before 1:00 pm. Service requests received by CONTRACTOR after 1:00 pm shall be picked up no later than 5:00 pm the following Work Day. Weight of Deceased Wildlife shall not exceed one hundred fifty (150) pounds per animal. CONTRACTOR will be responsible for picking up a maximum of three hundred fifty (350) Deceased Wildlife per year.

16.06 News Media Relations. CONTRACTOR shall notify the Contract Administrator by fax, e-mail or phone of all requests for news media interviews related to the Collection Services program within twenty-four (24) hours of CONTRACTOR'S receipt of the request. Before responding to any inquiries involving controversial issues or any issues likely to affect participation or Service Recipient perception of services, CONTRACTOR will discuss CONTRACTOR'S proposed response with the Contract Administrator.

16.07 Copies of draft news releases or proposed trade journal articles shall be submitted to CITY for prior review and approval at least five (5) Work Days in advance of release, except where CONTRACTOR is required by any law or regulation to submit materials to any regulatory agency in a shorter period of time, in which case

CONTRACTOR shall submit such materials to CITY simultaneously with CONTRACTOR'S submittal to such regulatory agency.

16.07.1 Copies of articles resulting from media interviews or news releases shall be provided to the CITY within five (5) Work Days after publication.

16.08 Looking out for You Program. In collaboration with CITY, CONTRACTOR shall develop and implement a "Looking Out For You" program wherein CONTRACTOR will work with law enforcement and other CITY departments to create a comprehensive crime/emergency plan as well as utilize drivers to spot and report other areas of concern outside of Solid Waste Services such as street light outages, damaged signs, potholes and downed wires. CONTRACTOR shall make drivers available for an annual training by CITY's Police Department during the term of the Contract.

ARTICLE 17. Emergency Service Provisions

17.01 Emergency Services. In the event of a tornado, major storm, earthquake, flooding, fire, natural disaster, or other such event, the Contract Administrator may grant the CONTRACTOR a variance from regular Collection routes and schedules. As soon as practicable after such event, the CONTRACTOR shall advise the Contract Administrator when it is anticipated that normal routes and schedules can be resumed. The Contract Administrator shall make an effort through the local news media to inform the public when regular Collection Services may be resumed. The clean-up from some events may require that the CONTRACTOR hire additional equipment, employ additional personnel, or work existing personnel on overtime hours to clean debris resulting from the event. The CONTRACTOR shall receive additional compensation, above the normal compensation contained in this Contract, to cover the costs of rental equipment, additional personnel, overtime hours and other documented expenses based on the rates set forth in **Exhibit 1** to this Contract provided the CONTRACTOR has first secured written authorization and approval from the CITY through the Contract Administrator.

ARTICLE 18. Record Keeping and Reporting Requirements

18.01 Record Keeping.

18.01.1 Accounting Records**.** CONTRACTOR shall maintain full, complete and separate financial, statistical and accounting records, pertaining to cash, billing, and provisions of all Collection Services and Street Sweeping Services, prepared on an accrual basis in accordance with generally accepted accounting principles. Such records shall be subject to audit, copy, and inspection. Gross revenues derived from provision of the Collection Services, whether such services are performed by the CONTRACTOR or by a subcontractor or subcontractors, shall be recorded as revenues in the accounts of the CONTRACTOR. CONTRACTOR shall maintain and preserve all cash, billing and disposal records for a period of not less than five (5) years following the close of each of the CONTRACTOR'S fiscal years.

18.01.2 Contract Materials Records. CONTRACTOR shall maintain records of the quantities of (i) Residential Waste and City Waste Collected and disposed under the terms of this Contract, (ii) Recyclable Materials, by type, Collected, purchased, processed, sold, donated or given for no compensation, and residue disposed.

18.01.3 Other Records. CONTRACTOR shall maintain all other records reasonably related to provision of Collection Services, whether or not specified in this Article 18 or elsewhere in the Contract.

18.02 Annual Reporting.

18.02.1 General. Annual reports shall be submitted no later than April 1 for the previous Contract Year. Annual reports shall be submitted in hard copy, and shall be provided electronically.

18.02.2 CalRecycle Reports. CONTRACTOR shall prepare information requested by the City to be used in annual reports required by the Department of Resources, Recycling and Recovery ("CalRecycle"), for submittal to the CITY by April 1 for review and comment, and CONTRACTOR revision as needed. CITY shall submit the final report to the state.

18.02.2.1 In the event that CalRecycle requires City to report an Implementation Schedule to comply with AB 341, AB 1826, SB 1383, SB 1594 and other Applicable Laws, Contractor will provide assistance to City in preparing a report, including Contractor's policies and procedures related to compliance with AB 341, AB 1826, SB 1383, and other Applicable Laws and how Recycling or Organics are collected, a description of the geographic area, routes, list of addresses served and a method for tracking contamination, copies of route audits, copies of notice of contamination, copies of notices, violations, education and enforcement actions issued, and copies of educational materials, flyers, brochures, newsletters, website, and social media.

18.02.3 CITY Reports. Annual reports to the CITY shall include:

18.02.3.1 Public Education Summary. Public education and information activities undertaken during the year, including distribution of bill inserts, collection notification tags, community information and events, tours and other activities related to the provision of Collection Services. This report will discuss the impact of these activities on Recycling program participation and include amounts Collected from Residential Service Units.

18.02.3.2 Summary of Programs. An analysis of any Recycling and Organic Recyclable Materials Collection, processing and marketing issues or conditions (such as participation, setouts, contamination, etc.) and possible solutions, discussed separately for Residential programs.

18.02.3.3 An electronic listing of all Residential Service Units and City Service Units including Service Recipient name, and address, billing name and

address if different, and Container size by service type. This report shall be in a format acceptable to CITY.

18.02.3.4 Recycling Data. The quarterly totals of Recyclable Materials processed and sold including facility name and location, average price received per ton and total recycling revenue received for the Calendar Year, cost of Recyclables Materials processing, and the cost of residual disposal. Indicate any quantities, by material type, donated or otherwise disbursed without compensation. Indicate number of Containers distributed by size and Service Unit type. Also provide quarterly totals and location for Residual disposed based on facility average or characterization at CONTRACTOR'S discretion.

18.02.3.5 Organic Recyclable Materials Data. Include average daily gross tons Collected by route. Include the total number of generators that receive each type of Organic Recyclable Materials Collection Service provided by the CONTRACTOR. Indicate number of Containers distributed by size and Service Unit type. Provide totals and location for Residue Disposed based on facility average or characterization at CONTRACTOR'S discretion. Include the number of route reviews conducted for prohibited contaminants and the number of Non-Collection Notices issued to Service Recipients.

18.02.3.6 Customer Service Log. A complete record of incoming calls, including the type and number of each call type, including inquiries, service requests, calls related to missed pickups, damaged containers (with three-year retention).

18.02.3.7 Summary Narrative. A summary narrative of problems encountered with Collection and processing activities and actions taken. Indicate type and number of Non-Collection Notices left at Service Recipient locations. Indicate instances or numbers of property damage or injury, significant changes in operation, market factors, publicity conducted, or needs for publicity. Include description of processed material loads rejected for sale, reason for rejection and disposition of load after rejection.

18.02.3.8 Container and Vehicle Inventory. An updated complete inventory of Bins and Carts by type and size, and an updated complete inventory of Collection vehicles including for each vehicle: truck number, date purchased, vehicle type, tare weight, license plate number, and vehicle make and model.

18.02.3.9 Diversion Data. CONTRACTOR must deliver to CITY diversion data for the franchised services performed under this Contract in the format specified by CITY.

18.02.4 Additional Reporting. The CONTRACTOR shall furnish the CITY with any additional reports as may reasonably be required, such reports to be prepared within a reasonable time following the reporting period.

ARTICLE 19. Nondiscrimination

19.01 Nondiscrimination. In the performance of all work and services under this Contract, CONTRACTOR shall not discriminate against any person on the basis of such person's race, sex, color, national origin, religion, marital status or sexual orientation. CONTRACTOR shall comply with all applicable local, state and federal laws and regulations regarding nondiscrimination, including those prohibiting discrimination in employment.

ARTICLE 20. Service Inquiries and Complaints

20.01 CONTRACTOR'S Customer Service. All service inquiries and complaints shall be directed to the CONTRACTOR. A representative of the CONTRACTOR shall be available to receive the complaints during normal business hours. All service complaints will be handled by the CONTRACTOR in a prompt and efficient manner. In the case of a dispute between the CONTRACTOR and a Service Recipient, the matter will be reviewed and a decision made by the Contract Administrator.

20.01.1 The CONTRACTOR will utilize the customer service log to maintain a record of all inquiries and complaints in a manner prescribed by the CITY.

20.01.2 For those complaints related to missed Collections that are received by 3:00 p.m. on a Work Day, the CONTRACTOR will return to the Service Unit address and Collect the missed materials before leaving the Service Area for the day. For those complaints related to missed Collections that are received after 3:00 p.m. on a Work Day, the CONTRACTOR shall have until the end of the following Work Day to resolve the complaint. For those complaints related to repair or replacement of a Container, the appropriate sections of this Contract shall apply.

20.01.3 CONTRACTOR agrees that it is in the best interest of the CITY that all Residential Waste, City Waste and Recyclable Materials be Collected on the scheduled Collection day. Accordingly, missed Collections will normally be Collected as set forth above regardless of the reason that the Collection was missed. However, in the event a Service Recipient requests missed Collection Service more than two (2) times in any consecutive two (2) month period, the Contract Administrator will work with the CONTRACTOR to determine an appropriate resolution to that situation. In the event the CONTRACTOR believes any complaint to be without merit, CONTRACTOR shall notify the Contract Administrator, either by Fax or e-mail. The Contract Administrator will investigate all disputed complaints and render a decision.

ARTICLE 21. Quality of Performance of Contractor

21.01 Intent. CONTRACTOR acknowledges and agrees that one of CITY'S primary goals in entering into this Contract is to ensure that the Collection Services and Street Sweeping Service are of the highest caliber, that Service Recipient satisfaction

remains at the highest level, that maximum diversion levels are achieved, and that materials Collected are put to the highest and best use to the extent possible.

21.02 Service Supervisor. CONTRACTOR shall assign a qualified supervisor to be in charge of the Collection Service and Street Sweeping Service within the Service Area and shall provide the name(s) of that person in writing to the Contract Administrator within thirty (30) days of the execution of this Contract, and annually by April 1 of each subsequent Contract Year of the term of this Contract, and any other time the person in that position changes. The supervisor shall be physically located in the Service Area and available to the Contract Manager through the use of telecommunication equipment at all times that CONTRACTOR is providing Collection Services in the Service Area. In the event the supervisor is unavailable due to illness or vacation, CONTRACTOR shall designate an acceptable substitute who shall be available and who has the authority to act in the same capacity as the supervisor.

21.03 Contract Manager. CONTRACTOR shall designate a Contract Manager and shall provide the name of that person in writing to the CITY within thirty (30) days of the execution of this Contract and annually by April 1 of each subsequent Contract Year of this Contract and any other time the person in that position changes. The Contract Manager shall be available to the CITY through the use of telecommunications equipment at all times that CONTRACTOR is providing Collection Services in the Service Area. The Contract Manager shall provide the CITY with an emergency phone number where the Contract Manager can be reached outside of normal business hours.

21.04 Administrative Charges. It shall be the duty of CONTRACTOR to perform services under this Contract in such a manner as to implement the goals set forth in Section 21.01 above. In the event CONTRACTOR fails to perform the services set forth in this Contract, the City may assess administrative charges against the CONTRACTOR. Prior to assessing Administrative Charges, the CITY shall give CONTRACTOR written notice of its intention to do so, as set forth below. The notice shall include a brief description of the incident(s)/non-performance giving rise to the damages. CITY may assess Administrative Charges for each day or incident for ongoing non-performance after the City has provided the Contract with written notice. CITY may assess an administrative charge against CONTRACTOR in the following amounts:

21.04.1 Collection Services Charges

List of Administrative Charges			
Item	**Detail**	**Charge**	**Contract Section**
a.	Failure or neglect to resolve each complaint within the time set forth in this Contract.	$500.00 per incident per Service Recipient	20.01
b.	Failure to clean up spillage or litter caused by CONTRACTOR.	$300.00 per incident per location	3.11
c.	Failure to repair damage to Service Recipient property caused by CONTRACTOR or its personnel.	$500.00 per incident per location	8.05
d.	Failure to maintain equipment in a clean, safe, and sanitary manner.	$500.00 per incident per day	13.01
e.	Failure to have a vehicle operator properly licensed.	$500.00 per incident per day	29.01
f.	Failure to maintain office hours as required by this Contract.	$500.00 per incident per day	14.01
g.	Failure to maintain or timely submit to CITY all documents and reports required under the provisions of this Contract.	$500.00 per incident per day	11.02, 13.03, 13.05, 15.19, 15.20, 16.01, 16.05, 18.02, 18.03
h.	Failure to properly cover materials in Collection vehicles.	$500.00 per incident	3.11
i.	Failure to display CONTRACTOR'S name and customer service phone number on Collection vehicles.	$500.00 per incident per day	13.01
j.	Failure to comply with the hours of operation as required by this Contract.	$500.00 per incident per day	8.04, 9.01
k.	Failure or neglect to complete at least ninety percent (90%) of each route on the regular scheduled Collection Service Work Day.	$1,000.00 for each route not completed	N/A

List of Administrative Charges			
Item	**Detail**	**Charge**	**Contract Section**
l.	Changing routes without proper notification to the Contract Administrator.	$500.00 per incident per day	11.02
m.	Commingling Residential or City Garbage with Recyclable Materials or Organic Recyclable Materials during Collection.	$1,000.00 per incident	3.10
n.	Commingling of materials Collected inside and outside the City of Rancho Cordova during Collection.	$1,000.00 per incident	3.10
o.	Failure to repair or replace damaged carts or bins within the time required by this Contract.	$100.00 per incident per day	8.05, 9.01
p.	Failure to deliver or exchange Containers within the time required by this Contract.	$100.00 per incident per day	8.05, 9.01
q.	Failure to have CONTRACTOR personnel in proper uniform.	$100.00 per incident per day	29.01
r.	Disposal of Recyclable Materials or Organic Recyclable Materials except for residual materials, in the Disposal Facility without first obtaining the required permission of the CITY.	$500.00 per occurrence	1.26, 8.06, 9.03
s.	Failure to provide required communications equipment.	$100.00 per incident per day	14.01
t.	Failure to return Carts to an upright position after Collection.	$100.00 per incident per day	8.05
u.	Failure to clean up street residue from Large Item Collection Service.	$100.00 per incident per day	3.11
v.	Failure to deliver any Collected materials to the Disposal Facility, Materials Recycling Facility, or Organic Recyclable Materials Processing Facility, as appropriate, except as otherwise expressly provided in this Contract.	$5,000 first failure $25,000 each subsequent failure	1.26, 7.01, 8.06, 8.07, 8.09

List of Administrative Charges			
Item	**Detail**	**Charge**	**Contract Section**
w.	Delivery to the Disposal Facility of any Residential Solid Waste Collected outside of the City boundaries of Rancho Cordova commingled with that Collected as part of this Contract.	$5,000 first delivery $25,000 each subsequent delivery	3.10
x.	Failure to utilize compressed natural gas (CNG) vehicles as required.	$1,000 per day per vehicle, unless City approves alternate vehicle delivery schedule	13.01, 15.20
y.	Failure to meet the minimum diversion requirements as set forth in Article 5 of this Contract (calculated per Contract Year).	Shortfall of 0.001% - 2%: $25,000 Shortfall of 2.001% or greater: $50,000	5.01
z.	Failure to meet vehicle noise requirements.	$100.00 per incident per day	13.02
aa.	Failure to Collect Large Items within 48 hours of request.	$1,000 per day	8.11
bb.	Failure to comply with the requirements of this Contract not specified in items a. through dd.	$250 per incident	N/A
cc.	Failure to collect Debris Collection materials within 48 hours	$1,000 per day	10.02
dd.	Failure to deliver Large Items to a City-approved facility for diversion from disposal with exceptions as noted in Section 8.11.3	$500 first delivery $1,000 each subsequent delivery	8.11

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21.04.2 Street Sweeping Services Charges

List of Administrative Charges			
Item	**Detail**	**Charge**	**Contract Section**
a.	Failure or neglect to resolve each complaint within the time set forth in this Agreement.	$100 per incident per Service Recipient.	20.01
b.	Failure to clean up spillage or litter caused by CONTRACTOR.	$200 per incident per location.	15.14
c.	Failure to repair damage to customer property caused by CONTRACTOR or its personnel.	$500 per incident per location.	N/A
d.	Failure to maintain equipment in a clean, safe, and sanitary manner.	$100 per incident per Work Day.	15.20
e.	Failure to have a vehicle operator properly licensed.	$300 per incident per Work Day.	29.01
f.	Failure to maintain office hours as required by this Agreement.	$100 per incident per Work Day.	14.01
g.	Failure to maintain or timely submit to CITY all documents and reports required under the provisions of this Agreement.	$200 per incident per Work Day.	15.20
h.	Failure to comply with the hours of operation as required by this Agreement.	$200 per incident per Work Day.	15.12
i.	Failure or neglect to complete at least 90 percent of each route on the regular scheduled Street Sweeping Service Work Day.	$1,000 for each route not completed.	N/A
j.	Changing routes without proper notification to the CITY Administrator.	$500 per incident per Work day.	15.19

21.04.3 Procedure for Review of Administrative Charges. The Contract Administrator may assess administrative charges pursuant to this Article 21 on a monthly basis. At the end of each month during the term of this Contract, the Contract

Administrator shall issue a written notice to CONTRACTOR ("Notice of Intention to Assess Administrative Charge") of the administrative charges assessed and the basis for each assessment.

21.04.4 The assessment shall become final unless, within ten (10) calendar days of the date of the notice of assessment, CONTRACTOR provides a written request for a meeting with the City Manager to present evidence that the assessment should not be made.

21.04.5 The Contract Administrator shall schedule a meeting between CONTRACTOR and the Manager or the Manager's designee as soon as reasonably possible after timely receipt of CONTRACTOR'S request.

21.04.6 The Manager or the Manager's designee shall review CONTRACTOR'S evidence and render a decision sustaining or reversing the administrative charges as soon as reasonably possible after the meeting. Written notice of the decision shall be provided to CONTRACTOR.

21.04.7 In the event CONTRACTOR does not submit a written request for a meeting within ten (10) calendar days of the date of the Notice of Assessment, the Contract Administrator's determination shall be final and the administrative charges shall be due within thirty (30) calendar days of the date of the Notice of Assessment.

21.04.8 CITY'S assessment or collection of administrative charges shall not prevent CITY from exercising any other right or remedy, including the right to terminate this Contract, for CONTRACTOR'S failure to perform the work and services in the manner set forth in this Contract.

ARTICLE 22. Performance Bond

22.01 Performance Bond. Within ten (10) calendar days from the date the City Council approves this Contract, the CONTRACTOR shall furnish to the CITY, and keep current during the term of this Contact, a performance bond in a form as set forth in **Exhibit 5** which is included in and attached to this Contract, for the faithful performance of this Contract and all obligations arising hereunder in an amount of Five Hundred Thousand Dollars ($500,000). Such amount shall be subject to the provisions of Section 22.01.1 below.

22.01.1 The performance bond shall be executed by a surety company licensed to do business in the State of California; having an "A-" or better rating by A. M. Best or Standard and Poors; and included on the list of surety companies approved by the Treasurer of the United States. On January 1, 2019, and annually thereafter, CONTRACTOR may request in writing that the CITY allow the performance bond to be reduced. The CITY shall, at the sole option of the CITY, respond to the request in writing within forty-five (45) calendar days of receipt of the written request. Nothing in this Contract shall require that the CITY approve the request of the CONTRACTOR nor shall

the CITY have any obligation to provide CONTRACTOR with its reasoning for approving or denying the request.

22.02 Letter of Credit. As an alternative to the performance bond required by Section 22.01, at CITY'S option, CONTRACTOR may deposit with CITY an irrevocable letter of credit in an amount as set forth in Sections 22.01. If allowed, the letter of credit must be issued by an FDIC insured banking institution chartered to business in the state of California, in the CITY'S name, be callable at the discretion of the CITY and be in a form acceptable to the City Attorney. Nothing in this Section shall, in any way, obligate the CITY to accept a letter of credit in lieu of the performance bond.

ARTICLE 23. Insurance

23.01 Insurance Policies. CONTRACTOR shall secure and maintain throughout the term of this Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with CONTRACTOR'S performance of work or services under this Contract. CONTRACTOR'S performance of work or services shall include performance by CONTRACTOR'S employees, agents, representatives and subcontractors.

23.01.1 Minimum Scope of Insurance. Insurance coverage shall be at least this broad:

23.01.1.1 Insurance Services Office Form No. GL 0002 (Ed. 1/96) covering Comprehensive General Liability and Insurance Services Office Form No. GL 0404 covering Broad Form Comprehensive General Liability; or Insurance Services Office Commercial General Liability coverage ("occurrence" form CG 0001), including X, C, U where applicable.

23.01.1.2 Insurance Services Office Form No.CA 0001 (Ed. 10/13) covering Automobile Liability, code 1 "any auto", or code 2 "owned autos" and endorsement CA 0025. Coverage shall also include code 8, "hired autos" and code 9 "non-owned autos".

23.01.2 Workers' Compensation insurance as required by the California Labor Code and Employers Liability Insurance.

23.01.3 Pollution Liability Insurance.

23.02 Minimum Limits of Insurance. CONTRACTOR shall maintain insurance limits no less than:

23.02.2 Commercial General Liability: $5,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability insurance with a general aggregate limit is used, either the general aggregate limit shall apply separately to this Contract or the general aggregate limit shall be $10,000,000.

23.02.3 Automobile Liability: $5,000,000 combined single limit per accident for bodily injury and property damage.

23.02.4 Workers' Compensation and Employers Liability: Workers' Compensation limits as required by the California Labor Code and Employers Liability limits of $3,000,000 per accident.

23.02.5 Pollution Liability: $10,000,000 per occurrence.

23.03 Deductibles and Self-Insured Retention. Any deductibles or self-insured retention must be declared to, and approved by, CITY. At the option of CITY, either; the insurer shall reduce or eliminate such deductibles or self-insured retention as respects CITY, its officers, employees, agents, contractors and volunteers; or CONTRACTOR shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses in an amount specified by CITY'S Risk Manager.

23.04 Endorsements. The policies are to contain, or be endorsed to contain, the following provisions:

23.04.1 General Liability and Automobile Liability Coverage.

23.04.1.1 The endorsement must name the CITY, its officers, employees, agents, contractors and volunteers as additional insureds as respects: liability arising out of activities performed by, or on behalf of, CONTRACTOR; products and completed operations of CONTRACTOR; premises owned, leased or used by CONTRACTOR; and automobiles owned, leased, hired or borrowed by CONTRACTOR. The coverage shall contain no special limitations on the scope of protection afforded to CITY, its officers, employees, agents, contractors and volunteers.

23.04.1.2 The endorsement must state that CONTRACTOR'S insurance coverage shall be primary insurance as respects CITY, its officers, employees, agents, contractors and volunteers. Any insurance or self-insurance maintained by CITY, its officers, employees, agents or contractors shall be in excess of CONTRACTOR'S insurance and shall not contribute with it.

23.04.1.3 Any failure to comply with reporting provisions of the policies shall not affect coverage provided to CITY, officers, employees, agents, contractors and volunteers.

23.04.1.4 Coverage shall state that CONTRACTOR'S insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

23.04.1.5 The Automobile Liability policy shall be endorsed to delete the Pollution and/or the Asbestos exclusion, if applicable, and add the Motor Carrier Act endorsement (MCS-90) TL 1005, TL1007.

23.04.2 All Coverage. Each insurance policy required by this Contract (other than workers' compensation) shall be endorsed to state that coverage shall not be

canceled, or materially changed or reduced in limits except after thirty (30) calendar days prior written notice has been given to CITY.

23.05 Acceptability of Insurers. Insurance is to be placed with insurers rate A-VIII (or higher) by A.M.Best.

23.06 Verification of Coverage. CONTRACTOR shall furnish CITY with certificates of insurance and with original endorsements affecting coverage required by this Contract. The certificates and endorsement for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. CONTRACTOR shall furnish CITY with a new certificate of insurance and endorsements on each renewal of coverage or change of insurers.

23.07 Proof of insurance shall be mailed as set forth in Article 41.

23.08 Subcontractors. CONTRACTOR shall include all subcontractors as insureds under its policies or shall obtain separate certificates and endorsements for each subcontractor.

23.09 Modification of Insurance Requirements. The insurance requirements provided in this Contract may be modified or waived by CITY, in writing, upon the request of CONTRACTOR if the CITY determines such modification or waiver is in the best interest of CITY considering all relevant factors, including exposure to CITY.

23.10 Rights of Subrogation. All required insurance policies shall preclude any underwriter's rights of recovery or subrogation against CITY with the express intention of the parties being that the required insurance coverage protects both parties as the primary coverage for any and all losses covered by the above-described insurance. CONTRACTOR shall ensure that any companies issuing insurance to cover the requirements contained in this Contract agree that they shall have no recourse against CITY for payment or assessments in any form on any policy of insurance. The clauses 'Other Insurance Provisions' and 'Insured Duties in the Event of an Occurrence, Claim or Suit' as it appears in any policy of insurance in which CITY is named as an additional insured shall not apply to CITY.

ARTICLE 24. Indemnification

24.01 Indemnification. CONTRACTOR shall indemnify and hold harmless CITY, CITY'S contractors, and the public officials, officers, directors, employees, agents, volunteers and other contractors of each of them (collectively, "Idemnitees"), from and against any and all claims, costs, the cost of remediation and cost-recoveries pursuant to CERCLA, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals as well as all Court or other dispute resolution costs), liabilities, expenditures or causes of action of any kind (including negligent, reckless, willful or intentional acts or omissions of the CONTRACTOR, any subcontractor, any supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any services or anyone for whose acts any of them may

be liable), arising from, relative to or caused by the performance of the services. This indemnity includes but is not limited to claims attributable to bodily injury, sickness, disease or death and to injury or destruction of tangible property. CONTRACTOR agrees, at CONTRACTOR'S expense, after written notice from the CITY, to defend any action against the CITY that falls within the scope of this indemnity, or the CITY, at the CITY'S option, may elect not to tender such defense and may elect instead to secure its own attorneys to defend any such action and the reasonable costs and expenses of such attorneys incurred in defending such action shall be payable by CONTRACTOR. Additionally, if CONTRACTOR, after receipt of written notice from the CITY, fails to make any payment due under this Contract to the CITY, CONTRACTOR shall pay any reasonable attorneys' fees or costs incurred by the CITY in securing any such payment from CONTRACTOR. Payment of any amount due pursuant to the foregoing indemnity shall, after receipt of written notice by CONTRACTOR from the CITY that such amount is due, be made by CONTRACTOR prior to the CITY being required to pay same, or in the alternative, the CITY, at the CITY'S option, may make payment of an amount so due and CONTRACTOR shall promptly reimburse the CITY for same, together with interest thereon at the rate of twelve percent (12%) per annum simple interest from the date of receipt by CONTRACTOR of written notice from the CITY that such payment is due.

24.02 Hazardous Substances Indemnification. CONTRACTOR shall indemnify, defend with counsel selected by CITY, protect and hold harmless the CITY, CITY'S contractors, and the public officials, officers, directors, employees, agents, volunteers and other contractors of each of them (collectively, "Idemnitees") from and against all claims, damages (including but not limited to special, consequential, natural resources and punitive damages), injuries, costs, (including without limit any and all response, remediation and removal costs), losses, demands, debts, liens, liabilities, causes of action, suits, legal or administrative proceedings, interest, fines, charges, penalties, and expenses (including without limit attorneys and expert witness fees and costs incurred in connection with defending against any of the foregoing or in enforcing this indemnity providing the enforcement action is successful in establishing indemnification), (Collectively, "damages") of any kind whatsoever paid, incurred or suffered by, or asserted against, indemnitees arising from or attributable to the acts of omission of CONTRACTOR, its officers, directors, employees, companies or agents, whether or not negligent or otherwise culpable, in connection with or related to the performance of this contract, including without limit damages arising from or attributable to any operations, repair, clean-up or detoxification, or preparation and implementation of any removal, remedial, response, closure, post-closure or other plan (regardless of whether undertaken due to governmental action) concerning any Hazardous substance, Hazardous Waste, and/or Household Hazardous Waste (Collectively, "Waste") at any places where CONTRACTOR Transfers, Transports, Processes, stores or Disposes of CITY Solid Waste, or other waste Collected under this contract, however, notwithstanding the above, CONTRACTOR shall in no way be liable to CITY, for acts and/or omissions of the Recycling, Green Waste and Food Waste Collection Company, including, but not limited to, acts or omissions related to

the Recycling, Green Waste and Food Waste Collection Company's facilities. This indemnity afforded indemnitees, shall only be limited to exclude coverage for intentional wrongful acts and active negligence of indemnitees. The foregoing indemnity is intended to operate as an agreement pursuant to §107(e) of the Comprehensive Environmental Response, Compensation and Liability Act. CERCLA, 42 USC. §9607(e) and California Health and Safety Code §25364, to defend, protect, hold harmless, and indemnify CITY from liability. This provision is in addition to all other provisions in this contract and is intended to survive the end of the term of this contract. Nothing in this paragraph shall prevent the CONTRACTOR from seeking indemnification or contribution from persons or entities other than indemnitees, for any liabilities incurred by the CONTRACTOR, or the indemnitees. As appropriate, the parent company should provide the guarantees necessary to meet this provision.

24.03 Indemnification for Failure to Meet AB 939 Goals. CONTRACTOR agrees to protect and defend CITY with counsel selected by CONTRACTOR and approved by CITY, to pay all attorneys' fees, and to indemnify and hold CITY harmless from and against all fines or penalties imposed by the CalRecycle if the diversion goals specified in California Public Resources Code Section 41780 as of the date hereof and hereafter throughout are not met by the CITY with respect to the Materials Collected by CONTRACTOR and if the lack in meeting such goals are attributable to the failure of the CONTRACTOR to implement and operate the recycling or diversion programs or undertake the related activities required by this Contract.

24.04 Consideration. It is specifically understood and agreed that the consideration inuring to the CONTRACTOR for the execution of this Contract consists of the promises, payments, covenants, rights and responsibilities contained in this Contract.

24.05 Obligation. The execution of this Contract by the CONTRACTOR shall obligate the CONTRACTOR to comply with the foregoing indemnification provision; however, the collateral obligation of providing insurance must also be complied with as set forth in Article 23 above.

24.06 Subcontractors. The CONTRACTOR shall require all subcontractors to enter into a contract containing the provisions set forth in the preceding subsection in which contract the subcontractor fully indemnifies the CITY in accordance with this Contract.

24.07 Exception. Notwithstanding Sections 24.01, 24.02 and 24.03, CONTRACTOR'S obligation to indemnify, hold harmless and defend CITY, its of4icers and employees shall not extend to any loss, liability, penalty, damage, action or suit resulting from the sole negligence or willful misconduct of the CITY its officers or employees.

24.08 Damage by CONTRACTOR. If CONTRACTOR'S employees or subcontractors cause any injury, damage or loss to CITY property, including but not limited to CITY streets or curbs, CONTRACTOR shall reimburse CITY for CITY'S cost of repairing such injury, damage or loss. Such reimbursement is not in derogation of any right of CITY

to be indemnified by CONTRACTOR for any such injury, damage or loss. With the prior written approval of CITY, CONTRACTOR may repair the damage at CONTRACTORS sole cost and expense.

ARTICLE 25. Default of Contract

25.01 Termination. The CITY may cancel this Contract, except as otherwise provided below in this section, by giving the CONTRACTOR thirty (30) calendar days advance written notice, to be served as provided in Article 41, upon the happening of any one of the following events:

25.02 The CONTRACTOR shall take the benefit of any present or future insolvency statute, or shall make a general assignment for the benefit of creditors, or file a voluntary petition in bankruptcy (court) or a petition or answer seeking an arrangement for its reorganization or the readjustment of its indebtedness under the Federal bankruptcy laws or under any other law or statute of the United States or any state thereof, or consent to the appointment of a receiver, trustee or liquidator of all or substantially all of its property; or

25.03 By order or decree of a Court, the CONTRACTOR shall be adjudged bankrupt or an order shall be made approving a petition filed by any of its creditors or by any of the stockholders of the CONTRACTOR, seeking its reorganization or the readjustment of its indebtedness under the Federal bankruptcy laws or under any law or statute of the United States or of any state thereof, provided that if any such judgment or order is stayed or vacated within sixty (60) calendar days after the entry thereof, any notice of default shall be and become null, void and of no effect; unless such stayed judgment or order is reinstated in which case, said default shall be deemed immediate; or

25.04 By, or pursuant to, or under the authority of any legislative act, resolution or rule or any order or decree of any Court or governmental board, agency or officer having jurisdiction, a receiver, trustee or liquidator shall take possession or control of all or substantially all of the property of the CONTRACTOR, and such possession or control shall continue in effect for a period of sixty (60) calendar days; or

25.05 The CONTRACTOR has defaulted, by failing or refusing to pay in a timely manner the administrative charges or other monies due the CITY and said default is not cured within thirty (30) calendar days of receipt of written notice by CITY to do so; or

25.05.1 The CONTRACTOR has defaulted by allowing any final judgment for the payment of money to stand against it unsatisfied and said default is not cured within thirty (30) calendar days of receipt of written notice by CITY to do so; or

25.05.2 In the event that the monies due the CITY under Section 25.01.3 above or an unsatisfied final judgment under Section 25.01.4 above is the subject of a judicial proceeding, the CONTRACTOR shall not be in default if the sum of money is bonded. All bonds shall be in the form acceptable to the City Attorney; or

25.05.3 The CONTRACTOR has defaulted, by failing or refusing to perform or observe the terms, conditions or covenants in this Contract or any of the rules and regulations promulgated by the CITY pursuant thereto or has wrongfully failed or refused to comply with the instructions of the Contract Administrator relative thereto and said default is not cured within thirty (30) calendar days of receipt of written notice by the CITY to do so, or if by reason of the nature of such default, the same cannot be remedied within thirty (30) calendar days following receipt by the CONTRACTOR of written demand from the CITY to do so, the CONTRACTOR fails to commence the remedy of such default within said thirty (30) calendar days following such written notice or having so commenced shall fail thereafter to continue with diligence the curing thereof (with the CONTRACTOR having the burden of proof to demonstrate (a) that the default cannot be cured within thirty (30) calendar days, and (b) that it is proceeding with diligence to cure said default, and such default will be cured within a reasonable period of time). However, notwithstanding anything contained herein to the contrary, for the failure of the CONTRACTOR to provide Collection Services for a period of three (3) consecutive Work Days, the CITY may secure the CONTRACTOR'S records on the fourth (4th) Work Day in order to provide interim Collection services until such time as the matter is resolved and the CONTRACTOR is again able to perform pursuant to this Contract; provided, however, if the CONTRACTOR is unable for any reason or cause to resume performance at the end of thirty (30) calendar days all liability of the CITY under this Contract to the CONTRACTOR shall cease and this Contract may be deemed terminated by the CITY.

25.06 Violations. Notwithstanding the foregoing and as supplemental and additional means of termination of this Contract under this article, in the event that the CONTRACTOR'S record of performance show that the CONTRACTOR has frequently, regularly or repetitively defaulted in the performance of any of the covenants and conditions required herein to be kept and performed by the CONTRACTOR, in the opinion of the CITY and regardless of whether the CONTRACTOR has corrected each individual condition of default, the CONTRACTOR shall be deemed a "habitual violator", shall be deemed to have waived the right to any further notice or grace period to correct, and all of said defaults shall be considered cumulative and collectively shall constitute a condition of irredeemable default. The CITY shall thereupon issue the CONTRACTOR a final warning citing the circumstances therefore, and any single default by the CONTRACTOR of whatever nature, subsequent to the occurrence of the last of said cumulative defaults, shall be grounds for immediate termination of the Contract. In the event of any such subsequent default, the CITY may terminate this Contract upon giving of written final notice to the CONTRACTOR, such cancellation to be effective upon the date specified in the CITY'S written notice to the CONTRACTOR, and all contractual fees due hereunder plus any and all charges and interest shall be payable to said date, and the CONTRACTOR shall have no further rights hereunder. Immediately upon the specified date in such final notice the CONTRACTOR shall proceed to cease any further performance under this Contract.

25.07 Effective Date. In the event of the aforesaid events specified above, and except as otherwise provided in said subsections, termination shall be effective upon the date specified in the CITY'S written notice to the CONTRACTOR and upon said date this Contract shall be deemed immediately terminated and upon such termination all liability of the CITY under this Contract to the CONTRACTOR shall cease, and the CITY shall have the right to call the performance bond and shall be free to negotiate with other contractors for the operation of the herein specified services. The CONTRACTOR for failure to perform shall reimburse the CITY all direct and indirect costs of providing interim Collection Services.

25.08 Immediate Termination. CITY may terminate this Contract immediately upon written notice to CONTRACTOR in the event CONTRACTOR fails to provide and maintain the performance bond as required by this Contract, CONTRACTOR fails to obtain or maintain insurance policies endorsements as required by this Contract, CONTRACTOR fails to provide the proof of insurance as required by this Contract, or CONTRACTOR offers or gives any gift prohibited by CITY Municipal Code.

25.09 Termination Cumulative. CITY'S right to terminate this Contract is cumulative to any other rights and remedies provided by law or by this Contract.

ARTICLE 26. Modifications to the Contract

26.01 Modifications. The CITY shall have the power to make changes in this Contract as the result of changes in law, changes in the City of Rancho Cordova Municipal Code, or both, to impose new rules and regulations on the CONTRACTOR under this Contract relative to the scope and methods of providing Collection Services as shall from time-to-time be necessary and desirable for the public welfare. The CITY shall give the CONTRACTOR notice of any proposed change and an opportunity to be heard concerning those matters. The scope and method of providing Collection Services as referenced herein shall also be liberally construed to include, but is not limited to the manner, procedures, operations and obligations, financial or otherwise, of the CONTRACTOR.

26.02 Change in Law. The CITY and the CONTRACTOR understand and agree that the California Legislature has the authority to make comprehensive changes in Solid Waste Management legislation and that these and other changes in law in the future which mandate certain actions or programs for counties or municipalities may require changes or modifications in some of the terms, conditions or obligations under this Contract. The CONTRACTOR agrees that the terms and provisions of the City of Rancho Cordova Code, as it now exists or as it may be amended in the future, shall apply to all of the provisions of this Contract and the Service Recipients of the CONTRACTOR located within the Service Area. In the event any future change in the City Code or change or enactment of existing or newly mandated State or local legislation, policy or regulations materially alters the obligations of the CONTRACTOR, then the affected service rates, as established in **Exhibit 1** of this Contract shall be adjusted. Nothing contained in this Contract shall require any party to perform any act or function contrary to law. The CITY

and CONTRACTOR agree to enter into good faith negotiations regarding modifications to this Contract which may be required in order to implement changes in the interest of the public welfare or due to change in law. When such modifications are made to this Contract, the CITY and the CONTRACTOR shall negotiate in good faith, a reasonable and appropriate compensation adjustment for any increase or decrease in the services or other obligations required of the CONTRACTOR due to any modification in the Contract under this article. The CITY and the CONTRACTOR shall not unreasonably withhold agreement to such compensation adjustment. CONTRACTOR acknowledges and agrees that the provision of this section does not apply to changes in governmental fees unless such change is enacted by an agency of the Federal government, or the State of California and the change applies to all disposal or processing facilities in the State of California, or such change is proposed and requested by the CITY. Except for those changes proposed and requested by the CITY, changes to governmental fees or new governmental fees enacted by a local government that apply only to the disposal or processing facilities within the jurisdiction of that local government are specifically excluded from this section of the Contract and the Collection Service rates set forth in the Contract shall not be adjusted to account for those fees.

26.03 Initiative and Technology Changes. CITY may direct CONTRACTOR or CONTRACTOR may propose to CITY to perform additional services (including new diversion programs, additional public education activities, etc.), eliminate programs, or modify the manner in which it performs existing services. Pilot programs and innovative services, which may entail new Collection methods, targeted routing, different kinds of services, different types of Collection vehicles, and/or new requirements for Customers are included among the kinds of changes which CITY may direct or CONTRACTOR may propose. CONTRACTOR shall be entitled to an adjustment in its compensation for providing such additional or modified services but not for the preparation of its proposal to perform such services.

26.04 Service Proposal. Within thirty (30) calendar days of receipt of a request for a service change from CITY or in the event CONTRACTOR is proposing a service change, CONTRACTOR shall submit a proposal to provide such service. At a minimum, the proposal shall contain a complete description of the following:

26.04.1 Program objectives and goals to be used in measuring the success of the program as discussed in Section 26.06 below;

26.04.2 Collection methodology to be employed (equipment, manpower, etc.);

26.04.3 Equipment to be utilized (vehicle number, types, capacity, age, etc.);

26.04.4 Labor requirements (number of employees by classification);

26.04.5 Type of Carts or Bins to be utilized;

26.04.6 Provision for program publicity, education, and marketing; and

26.04.7 Five (5) year projection of the financial results of the program's operations in an operating statement format including documentation of the key assumptions underlying the projections and the support for those assumptions, giving full effect to the savings or costs to existing services.

26.05 Incremental Costs. In the event the change(s) in service results in an incremental cost increase over the life of the Contract, CONTRACTOR will be responsible for the first ten thousand dollars ($10,000) of such increase in the aggregate. To the extent costs are projected to exceed ten thousand dollars ($10,000), CITY and CONTRACTOR shall agree on the amount of additional costs to be reimbursed to CONTRACTOR prior to the initiation of the service change.

26.06 Other Contractors. CONTRACTOR acknowledges and agrees that CITY may permit other contractors or companies besides CONTRACTOR to provide additional Collection Services and such other services not otherwise contemplated by this Contract if CONTRACTOR and CITY cannot agree on terms and conditions, including compensation adjustments, of such services in one hundred twenty (120) calendar days from the date when CITY first requests a proposal from CONTRACTOR to perform such services.

26.07 Monitoring and Evaluation. At CITY'S request, CONTRACTOR shall meet with CITY to describe the progress of each new program and other service issues. At each meeting, CITY and CONTRACTOR shall have the opportunity to discuss revisions to the program. If applicable, CONTRACTOR shall document the results of the new programs on a monthly basis, including at a minimum the tonnage diverted by material type, the end use or processor of the diverted materials and the cost per ton for transporting and processing each type of material and other such information requested by CONTRACTOR and/or CITY necessary to evaluate the performance of each program.

26.08 Termination for Cause. CITY shall have the right to terminate a program or assign the program to a third party for cause at no cost to CITY or Service Recipients if CONTRACTOR is not achieving the programs agreed to and defined goals and objectives. Prior to such termination or assignment, CITY shall meet and confer with CONTRACTOR for a period of up to ninety (90) calendar days to resolve CITY'S concerns. Thereafter, CITY may terminate the program or utilize a third party to perform these services if CITY reasonably believes CONTRACTOR cannot meet or is not meeting the agreed to and defined project goals and objectives. Notwithstanding these changes, CONTRACTOR shall continue the program during the ninety (90) day period and, in the event CITY elects to utilize a third party to continue the program, thereafter until the third party takes over the program.

26.09 Termination without Cause. CITY shall also have the right to terminate a program without cause. As a condition of the termination, CITY shall reimburse CONTRACTOR for all costs incurred for implementation and performance of the program that were identified in the program proposal prepared and submitted by CONTRACTOR

and agreed to by CITY which will have not been funded or otherwise recovered through program compensation at the time the program is terminated.

26.10 Rate Adjustment at Termination. In the event a program is terminated as set forth in Section 26.07 or 26.08 above, CONTRACTOR shall adjust all Customer rates to remove the component of the rate used to fund the program. The rates shall be adjusted as of the effective date of the termination of the program.

ARTICLE 27. Legal Representation

27.01 Acknowledgement. It is acknowledged that each party was, or had the opportunity to be, represented by counsel in the preparation of and contributed equally to the terms and conditions of this Contract and, accordingly, the rule that a contract shall be interpreted strictly against the party preparing the same shall not apply herein due to the joint contributions of both parties.

ARTICLE 28. Financial Interest

28.01 Representation. CONTRACTOR warrants and represents that no elected official, officer, agent or employee of the City has a financial interest, directly or indirectly, in this Contract or the compensation to be paid under it and, further, that no CITY employee who acts in the CITY as a “purchasing agent” as defined in the appropriate Section of California Statutes, nor any elected or appointed officer of the CITY, nor any spouse or child of such purchasing agent, employee or elected or appointed officer, is a partner, officer, director or proprietor of the CONTRACTOR and, further, that no such CITY employee, purchasing agent, CITY elected or appointed officer, or the spouse or child of any of them, alone or in combination, has a material interest in the CONTRACTOR. Material interest means direct or indirect ownership of three percent (3%) or more of the total assets or capital stock of the CONTRACTOR.

ARTICLE 29. Contractor's Personnel

29.01 Personnel Requirements. The CONTRACTOR shall employ and assign qualified personnel to perform all services set forth herein. The CONTRACTOR shall be responsible for ensuring that its employees comply with all Applicable Laws and regulations and meet all federal, state and local requirements related to their employment and position.

29.01.1 The CITY may request the transfer of any employee of the CONTRACTOR who materially violates any provision hereof, or who is wanton, negligent, or discourteous in the performance of his duties.

29.01.2 CONTRACTOR’S field operations personnel shall be required to wear a clean uniform shirt bearing the CONTRACTOR’S name. CONTRACTOR’S employees, who normally come into direct contact with the public, including drivers, shall bear some means of individual photographic identification such as a name tag or identification card.

29.01.3 Each driver of a Collection vehicle shall at all times carry a valid California driver's license and all other required licenses for the type of vehicle that is being operated.

29.01.4 Each driver of a Collection vehicle shall at all times comply with all applicable state and federal laws, regulations and requirements.

29.01.5 CONTRACTOR'S employees, officers, and agents shall at no time be allowed to identify themselves or in any way represent themselves as being employees of the CITY.

29.01.6 The CONTRACTOR'S name and the Customer Service telephone number shall be properly displayed on all Collection vehicles.

ARTICLE 30. Exempt Waste

30.01 The CONTRACTOR shall not be required to Collect or dispose of Exempt Waste, but may offer such services. All such Collection and disposal of Exempt Waste is not regulated under this Contract, but if provided by the CONTRACTOR shall be in strict compliance with all federal, state and local laws and regulations. If CONTRACTOR decides at its sole discretion to offer such services, said services are outside the scope of this Contract and at the sole risk of the CONTRACTOR.

ARTICLE 31. Independent Contractor

31.01 In the performance of services pursuant to this Contract, CONTRACTOR shall be an independent contractor and not an officer, agent, servant or employee of CITY. CONTRACTOR shall have exclusive control of the details of the services and work performed and over all persons performing such services and work. CONTRACTOR shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors and subcontractors, if any. Neither CONTRACTOR nor its officers, employees, agents, contractors or subcontractors shall obtain any right to retirement benefits, Workers Compensation benefits, or any other benefits which accrued to CITY employees and CONTRACTOR expressly waives any claim it may have or acquire to such benefits.

ARTICLE 32. Laws to Govern

32.01 The law of the State of California shall govern the rights, obligations, duties and liabilities of CITY and CONTRACTOR under this Contract and shall govern the interpretation of this Contract.

ARTICLE 33. Consent to Jurisdiction

33.01 The parties agree that any litigation between CITY and CONTRACTOR concerning or arising out of this Contract shall be filed and maintained exclusively in the Municipal or Superior Courts of Sacramento County, State of California, or in the United

States District Court for the Eastern District of California to the fullest extent permissible by law. Each party consents to service of process in any manner authorized by California law.

ARTICLE 34. Assignment

34.01 No assignment of this Contract or any right occurring under this Contract shall be made in whole or in part by the CONTRACTOR without the express written consent of the CITY. The CITY shall have full discretion to approve or deny, with or without cause, any proposed or actual assignment by the CONTRACTOR. Any assignment of this Contract made by the CONTRACTOR without the express written consent of the CITY shall be null and void and shall be grounds for the CITY to declare a default of this Contract and immediately terminate this Contract by giving written notice to the CONTRACTOR, and upon the date of such notice this Contract shall be deemed immediately terminated, and upon such termination all liability of the CITY under this Contract to the CONTRACTOR shall cease, and the CITY shall have the right to call the performance bond and shall be free to negotiate with other contractors, the CONTRACTOR, or any other person or company for the service which is the subject of this Contract. In the event of any assignment, the assignee shall fully assume all the liabilities of the CONTRACTOR.

34.02 The use of a subcontractor to perform services under this Contract shall not constitute delegation of CONTRACTOR'S duties provided that CONTRACTOR has received prior written authorization from the Contract Administrator to subcontract such services and the Contract Administrator has approved a subcontractor who will perform such services. CONTRACTOR shall be responsible for directing the work of CONTRACTOR'S subcontractors and any compensation due or payable to CONTRACTOR'S subcontractor shall be the sole responsibility of CONTRACTOR. The Contract Administrator shall have the right to require the removal of any approved subcontractor for reasonable cause. The subcontractors listed in **Exhibit 6**, which is attached to and incorporated in this Contract, are hereby approved by the CITY.

ARTICLE 35. Compliance with Laws

35.01 In the performance of this Contract, CONTRACTOR shall comply with all Applicable Laws, regulations, ordinances and codes of the federal, state and local governments, including without limitation the Rancho Cordova Municipal Code.

35.02 CITY shall provide written notice to CONTRACTOR of any planned amendment to the Rancho Cordova Municipal Code that would substantially affect the performance of CONTRACTOR'S services pursuant to this Contract. Such notice shall be provided at least thirty (30) calendar days prior to the City Council's approval of such an amendment.

ARTICLE 36. Permits and Licenses

36.01 CONTRACTOR shall obtain, at its own expense, all permits and licenses required by law or ordinance and maintain same in full force and effect throughout the term of this Contract. CONTRACTOR shall provide proof of such permits, licenses or approvals and shall demonstrate compliance with the terms and conditions of such permits, licenses and approvals upon the request of the Contract Administrator.

ARTICLE 37. Ownership of Written Materials

37.01 All reports, documents, brochures, public education materials, and other written, printed, electronic or photographic materials developed by CITY or CONTRACTOR in connection with the services to be performed under this Contract, whether developed directly or indirectly by CITY or CONTRACTOR shall be and shall remain the property of CITY without limitation or restrictions on the use of such materials by CITY. CONTRACTOR shall not use such materials in connection with any project not connected with this Contract without the prior written consent of the Contract Administrator. This Article 37 does not apply to ideas or concepts described in such materials and do not apply to the format of such materials.

ARTICLE 38. Waiver

38.01 Waiver by CITY or CONTRACTOR of any breach for violation of any term covenant or condition of this Contract shall not be deemed to be a waiver of any other term, covenant or condition or any subsequent breach or violation of the same or of any other term, covenant or condition. The subsequent acceptance by CITY of any fee, tax, or any other monies which may become due from CONTRACTOR to CITY shall not be deemed to be a waiver by CITY of any breach for violation of any term, covenant or condition of this Contract.

ARTICLE 39. Prohibition Against Gifts

39.01 CONTRACTOR represents that CONTRACTOR is familiar with and shall not violate applicable California laws regarding the acceptance of gifts by a CITY officer or designated employee.

ARTICLE 40. Point of Contact

40.01 The day-to-day dealings between the CONTRACTOR and the CITY shall be between the CONTRACTOR and the Contract Administrator.

ARTICLE 41. Notices

41.01 Except as provided herein, whenever either party desires to give notice to the other, it must be given by written notice addressed to the party for whom it is intended, at the place last specified and to the place for giving of notice in compliance with

the provisions of this paragraph. For the present, the parties designate the following as the respective persons and places for giving of notice:

As to the CITY:
Contract Administrator
Albert Stricker
Public Works Director
2729 Prospect Park Drive
Rancho Cordova, California 95670
Telephone: (916) 851-8700
E-Mail: astricker@cityofranchocordova.org

As to the CONTRACTOR:
Antonio Perez, General Manager
Republic Services Inc.
3326 Fitzgerald Road
Rancho Cordova, CA 95742
Telephone: (916) 438-5072
E-Mail: APerez7@republicservices.com

41.02 Notices shall be effective when received at the address as specified above. Changes in the respective address to which such notice is to be directed may be made by written notice. Facsimile transmission is acceptable notice, effective when received, however, facsimile transmissions received (i.e. printed) after 4:30 p.m. or on weekends or holidays, will be deemed received on the next business day. The original of items that are transmitted by facsimile equipment must also be mailed as required herein.

41.03 Notice by CITY to CONTRACTOR of a Collection or other Service Recipient problem or complaint may be given to CONTRACTOR orally by telephone at CONTRACTOR'S local office with confirmation sent to CONTRACTOR through the Customer Service System by the end of the Work Day.

ARTICLE 42. Transition to Next Contractor

42.01 In the event CONTRACTOR is not awarded a Contract to continue to provide Collection Services following the expiration or early termination of this Contract, CONTRACTOR shall cooperate fully with CITY and any subsequent contractors to assure a smooth transition of services described in this Contract. Such cooperation shall include but not be limited to transfer of computer data, files and tapes; providing routing information, route maps, vehicle fleet information, and list of Service Recipients; providing a complete inventory of all carts and bins; providing adequate labor and equipment to complete performance of all Collection Services required under this Contract; taking all actions necessary to transfer ownership of carts and bins, as appropriate, to CITY; including transporting such containers to a location designated by the Contract Administrator; coordinating Collection of materials set out in new containers if new containers are provided for a subsequent Contract and providing other reports and data required by this Contract.

ARTICLE 43. Contractor's Records

43.01 CONTRACTOR shall maintain any and all letters, 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 Service Recipients for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to CONTRACTOR pursuant to this Contract.

43.02 CONTRACTOR shall maintain all documents and records which demonstrate performance under this Contract for a minimum period of three (3) years, or for any longer period required by law, from the date of termination or completion of this Contract.

43.03 Any records or documents required to be maintained pursuant to this Contract shall be made available for inspection or audit, at any time during regular business hours, upon written request by the Contract Administrator, the City Attorney, City Auditor, City Manager, or a designated representative of any of these officers. Copies of such documents shall be provided to CITY for inspection at the CITY offices when it is practical to do so. Otherwise, unless an alternative site is mutually agreed upon, the records shall be available at CONTRACTOR'S address indicated for receipt of notices in this Contract.

43.04 Where CITY has reason to believe that such records or documents may be lost or discarded due to the dissolution, disbandment or termination of CONTRACTOR'S business, CITY may, by written request or demand of any of the above named officers, require that custody of the records be given to CITY and that the records and documents be maintained in City Hall. Access to such records and documents shall be granted to any party authorized by CONTRACTOR, CONTRACTOR'S representatives, or CONTRACTOR'S successor-in-interest.

ARTICLE 44. Entire Contract

44.01 This Contract and the Exhibits attached hereto constitute the entire Contract and understanding between the parties hereto, and it shall not be considered modified, altered, changed or amended in any respect unless in writing and signed by the parties hereto. Any prior oral or written discussions, communications, or understandings between the parties shall be of no legal effect unless specifically incorporated in this written Contract and/or the addendums thereto.

ARTICLE 45. Severability

45.01 If any provision of this Contract or the application of it to any person or situation shall to any extent be held invalid or unenforceable, the remainder of this Contract and the application of such provisions to persons or situations other than those as to which it shall have been held invalid or unenforceable, shall not be affected, shall continue in full force and effect, and shall be enforced to the fullest extent permitted by law.

ARTICLE 46. Right to Require Performance

46.01 The failure of the CITY at any time to require performance by the CONTRACTOR of any provision hereof shall in no way affect the right of the CITY thereafter to enforce same. Nor shall waiver by the CITY of any breach of any provision hereof be taken or held to be a waiver of any succeeding breach of such provision or as a waiver of any provision itself.

ARTICLE 47. All Prior Contracts Superseded

47.01 This document incorporates and includes all prior negotiations, correspondence, conversations, Contracts and understandings applicable to the matters contained in this Contract and the parties agree that there are no commitments, Contracts or understandings concerning the subject matter of this Contract that are not contained in this document. Accordingly, it is agreed that no deviation from the terms of this Contract shall be predicated upon any prior representations or Contracts, whether oral or written.

ARTICLE 48. Headings

48.01 Headings in this document are for convenience of reference only and are not to be considered in any interpretation of this Contract.

ARTICLE 49. Exhibits

49.01 Each Exhibit referred to in this Contract forms an essential part of this Contract. Each such Exhibit is a part of this Contract and each is incorporated by this reference.

ARTICLE 50. Effective Date

50.01 This Amended and Restated Contract shall become effective at such time as it is properly executed by the CITY and the CONTRACTOR and the CONTRACTOR shall begin Collection Services, as covered herein, as of March 21, 2022.

IN WITNESS WHEREOF, the CITY and the CONTRACTOR have executed this Contract on the respective date(s) below each signature.

CITY OF RANCHO CORDOVA	CONTRACTOR
A Municipal Corporation	
By: _____	By: _____
Cyrus Abhar, City Manager City of Rancho Cordova	Michael Caprio, Vice President Allied Waste Services of North America, LLC

ATTEST: _____

Stacy Leitner, City Clerk
City of Rancho Cordova

APPROVED AS TO FORM

By: _____

Adam Lindgren, City Attorney
City of Rancho Cordova

Exhibit 1

City of Rancho Cordova, CA

Monthly Base Service Rates

Monthly Service Rates	Current Monthly Fees through 6/30/22	Proposed Monthly Fees 7/1/22	Proposed Monthly Fees 7/1/23	Proposed Monthly Fees 7/1/24
32-gallon trash can*	$22.34	$27.29	$28.11	$28.95
64-gallon trash can*	$26.59	$32.49	$33.46	$34.47
96-gallon trash can*	$35.42	$43.27	$44.57	$45.91
Street Sweeping	$1.00	$1.03	$1.06	$1.09
Additional large item collection / yard (over 10 yards)	$10.38	$10.69	$11.01	$11.34
Late set-out trash per cart (same day collection)	$6.72	$6.92	$7.13	$7.34
Late set-out trash per cart (next day collection)	$11.39	$11.73	$12.08	$12.45
Late set-out recycle per cart (same day collection)	$6.11	$6.29	$6.48	$6.68
Late set out recycle per cart (next day collection)	$9.50	$9.79	$10.08	$10.38
Late set-out green waste** / cart (same day collection)	$6.11	$6.29	$6.48	$6.68
Late set-out green waste** / cart (next day collection)	$10.80	$11.12	$11.46	$11.80
Extra 32-gallon trash cart	$6.09	$7.44	$7.66	$7.89
Extra 64-gallon trash cart	$8.55	$10.44	$10.75	$11.08
Extra 96-gallon trash cart	$12.10	$14.78	$15.22	$15.68
Extra recycle cart	$2.73	$2.81	$2.90	$2.98
Extra green waste** cart	$3.95	$4.83	$4.97	$5.12
Extra cart exchange	$30.25	$31.16	$32.09	$33.05
Recycle contamination fee	$11.39	$22.00	$22.66	$23.34
Green waste** contamination fee	$11.39	$22.00	$22.66	$23.34
32-gallon cart replacement with delivery	$71.45	$73.59	$75.80	$78.08
64-gallon cart replacement with delivery	$76.28	$78.57	$80.93	$83.35
96-gallon cart replacement with delivery	$81.13	$83.56	$86.07	$88.65

** The monthly fees for residential waste collection and recycling services are dependent on the garbage can size. The monthly fees cover the following services: curbside collection of trash, recyclables, organics, batteries, oil, oil filters and sharps; public education and outreach; customer service and billing; the bulky item program and illegal dumping collection; and street sweeping*

***Green Waste Collection will continue until July 1, 2022. From July 4,2022 and continuing throughout the duration of this Contract, this collection service will be updated to Organic Waste Collection.*

Exhibit 2

City of Rancho Cordova, CA

Commercial and Residential Street Maps

(To be inserted)

Exhibit 3
City of Rancho Cordova, CA
City Service Units

Address	Service	Container Size, Material & Frequency
2897 Kilgore Rd	FEL	2 4yd Garbage 2x per week 64-Gallon Organics 1x per week
2880 Gold Tailings Ct	FEL Trash /OCC	1 4yd Garbage 2x per week 1 4yd Recyclables 1x every other week
2729 Prospect Park Dr	FEL Trash /OCC	1 5yd Garbage 2x per week 1 4yd Recyclables 2x per week 64-Gallon Organics 1x per week
3303 Luyung	FEL	1 4yd Garbage 1x per week 1 4yd Recyclables 1x per week
3303 Luyung	Debris box trash	On call
Bear Hollow Reservoir	Debris box trash	On call
Folsom Blvd and Kilgore Folsom Blvd and Zinfandel West La Loma White Rock at the pedestrian overcrossing Lincoln Village Drive Croetto / Furmint Way	Street cans (trash & recycling)	1x per week

10455 Investment Circle	FEL	1 4yd Garbage 1x per week 1 4yd Recyclables 1x per week 64-Gallon Organics 1x per week

2862
2863

Exhibit 4

City of Rancho Cordova, CA

Cart Specifications

Specifications and Performance Criteria for 32-, 64-, and 96-gal Gray, Blue and Green Carts

Volumetric Capacity	• 32-gal, 64-gal, and 96-gal, excluding volume resulting from a crowned lid in the closed position
Minimum Load Rating	• 32-gal: 100 lbs. • 64-gal: 175 lbs. • 96-gal: 250 lbs.
Compatibility	• Compatible with commercially available fully automated lifting mechanisms that are or will be used in Rancho Cordova
Standards of Design	• Designed such that wastes flow freely out of the cart when dumped by a fully automated lifting mechanism
Dimensions & Design	• Body of cart -- nestable for economic bulk transportation and to facilitate distribution to users • Maximum width of 31” including lid and wheels • Leak proof
Finish Surfaces	• Interior surface must be smooth with a semi- or high-gloss finish • Exterior surface must be suitable for hot stamping on lid and body • Exterior must be free of sharp edges and corners, protrusions, or other structures that could pose a nuisance or hazard to humans
Identification & Markings	• The lid must have a suitable area to affix an appropriate label for recycling education or other information • The following must be hot-stamped on the lid: 1. facing street arrow • The following must be hot-stamped on the cart body: 1. City’s logo 2. serial number (sequentially numbered) 3. production batch number and date 4. maximum load weight rating 5. cart type, per clause 4.2.1f of ANSI Z245.30-99
Color	• Garbage: Gray • Recycling: Blue • Green Waste: Green
Warranty	• Minimum 10 years for all parts of cart; not prorated; any failure under warranty shall be replaced with a newly manufactured whole cart, which is defined to be the body of the cart, wheel, lid, handles, other ancillary features and fasteners
* CONTRACTOR is not required to replace functional Containers, including Containers purchased prior to January 1, 2022, that do not comply with the color requirements of this Exhibit prior to the end of the useful life of those Containers, or prior to the end of the Contract Term, whichever comes first.	

Exhibit 5

PERFORMANCE BOND

COLLECTION SERVICES

FOR THE

CITY OF RANCHO CORDOVA, CALIFORNIA

KNOW ALL MEN BY THESE PRESENTS: that

(here insert full name and address or legal title of contractor)

as Principal, hereinafter called Contractor, and,_____
(Name of insurer)

as Surety, hereinafter called Surety, are held firmly bound unto the CITY OF Rancho Cordova, CALIFORNIA as Obligee, hereinafter called the City, in the amount of _____ for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____,201_, entered into a contract with the City for providing Collection Services and Street Sweeping Services, which Contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall, in any way, affect its obligations on this bond and the Surety does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or the specifications. The Surety hereby specifically waives the provisions of Sections 2819 and 2845 of the California Civil Code.

In the event suit is brought upon this bond by the City and judgment is recovered, the Surety shall pay all costs incurred by the City in such suit, including reasonable attorney's fees to be fixed by the Court.

Whenever Contractor shall be, and declared by the City to be in default under the Contract, the City having performed the City's obligations thereunder, the Surety may promptly remedy the default, or shall promptly perform one of the following:

1. Complete the Contract in accordance with its terms and conditions.
2. Obtain a bid or bids for completing the Contract in accordance with the terms and conditions, and upon determination by the Surety of the lowest and most responsible bidder, or if the City elects, upon determination by the City and the Surety jointly of the lowest and most responsible bidder, arrange for a contract between such bidder and the City, and make available as work progresses (even though there should be a default or a

succession of default under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by the City to Contractor under the Contract and any amendments thereto, less the amount properly paid by the City to Contractor.

Any suit under this bond must be instituted before the expiration date of the Contract or if extended for an additional term by the City, the expiration of the extended term.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the City named herein or the executor, administrator or successors of the City of Rancho Cordova, California.

Signed and sealed this _____day of_____, 201_.

_____.
(Principal) (Seal)

_____.
(Witness)

_____
(Title)

_____.
Surety (Seal)
(Name of Insurer)

_____.
(Witness)

By:

_____
(Attorney-in-Fact)

Exhibit 6

City of Rancho Cordova, CA

Approved Subcontractors

Street Sweeping Subcontractor:

Contract Sweeping
Jesse Alvarado, Region Operations Manager
jalvarado@contractsweeping.com

Customer Support
Office (408) 498-4631
Cell (209) 229-5999

Exhibit 7

City of Rancho Cordova, CA

Vehicle Specifications

Vehicle Specifications				
Unit (Assigned ID #)	Truck Type	Legal Gross Weight (lbs)	Tare Weight (lbs)	Legal Payload (lbs)
2008	Rear end loader	58,000	38,940	19,060
2009	Rear end loader	58,000	39,000	19,000
2411	Resi-FEL	57,500	39,200	18,300
2420	Resi-FEL	57,500	39,760	17,740
2441	Resi-FEL	57,500	40,380	17,120
2466	Resi-FEL	57,500	39,900	17,600
2467	Resi-FEL	57,500	39,920	17,580
2468	Resi-FEL	57,500	40,060	17,440
2469	Resi-FEL	57,500	39,980	17,520
2470	Resi-FEL	57,500	39,820	17,680
2471	Resi-FEL	57,500	39,820	17,680
2472	Resi-FEL	57,500	39,340	18,160
2473	Resi-FEL	57,500	39,320	18,180
2474	Resi-FEL	57,500	39,680	17,820
2475	Resi-FEL	57,500	39,120	18,380
2477	Resi-FEL	57,500	39,860	17,640
2479	Resi-FEL	57,500	39,300	18,200
2480	Resi-FEL	57,500	39,540	17,960
2481	RESI	57,500	37,920	19,580
2482	RESI	57,500	38,180	19,320
2483	RESI	57,500	38,000	19,500
2484	RESI	57,500	37,760	19,740
2485	RESI	57,500	37,920	19,580
2486	RESI	57,500	38,040	19,460
9003	Loader	n/a	n/a	n/a
9032	Loader	n/a	n/a	n/a
9033	Loader	n/a	n/a	n/a
69	Toter Truck	n/a	n/a	n/a

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Vehicle Specifications (Cont.)				
Unit (Assigned ID #)	DMV License Plate	Chassis Make	Chassis Model	Mfg Year (age of chassis and body)
2008	61754M2/jul	Peterbilt	520	2018
2009	60778M2/jul	Peterbilt	520	2018
2411	86700G2/jun	Peterbilt	520	2017
2420	87598G2/aug	Peterbilt	520	2017
2441	35487H2/aug	Peterbilt	520	2017
2466	87155G2/jul	Peterbilt	520	2018
2467	86957G2/jun	Peterbilt	520	2017
2468	34999H2/jul	Peterbilt	520	2017
2469	06117S2/jul	Peterbilt	520	2017
2470	87696G2/aug	Peterbilt	520	2017
2471	35486H2/aug	Peterbilt	520	2017
2472	41873H1/aug	Autocar	WX64	2012
2473	41880H1/aug	Autocar	WX64	2012
2474	53347P1/aug	Autocar	WX64	2012
2475	02735M1/may	Autocar	WX64	2013
2477	09909M1/nov	Autocar	WX64	2013
2479	41855H1/aug	Autocar	WX64	2012
2480	02734M1/may	Autocar	WX64	2013
2481	23714T2/aug	Peterbilt	520	2020
2482	23509T2/jul	Peterbilt	520	2019
2483	23713T2/aug	Peterbilt	520	2020
2484	63852S2/apr	Peterbilt	520	2019
2485	64079S2/apr	Peterbilt	520	2019
2486	12353S2/mar	Peterbilt	520	2019
9003	n/a	John Deere	244J	2006
9032	n/a	Volvo	L30B	2012
9033	n/a	Volvo	L30B	2012
69	70250W1	International	4300	2015

2962

Vehicle Specifications (Cont.)				
Unit (Assigned ID #)	Unit Serial Number	Fuel Type	Date of Acquisition	Decibel Rating
2008	3BPDX20X4JF161699	CNG	7/3/18	82
2009	3BPDX20X7JF161700	CNG	6/18/18	83
2411	3BPDX20X0HF174735	CNG	6/1/17	84
2420	3BPDX20X6HF174738	CNG	5/12/17	83
2441	3BPDX20X8HF174739	CNG	5/12/17	85
2466	3BPDX20X4HF174740	CNG	2/22/17	83
2467	3BPDX20X6HF174741	CNG	2/22/17	83
2468	3BPDX20XXHF174743	CNG	2/22/17	84
2469	3BPDX20X0JF174742	CNG	5/12/17	84
2470	3BPDX20X2HF174736	CNG	5/12/17	83
2471	3BPDX20X4HF174737	CNG	5/12/17	83
2472	5VCACDLE4CH213732	CNG	7/19/12	85
2473	5VCACDLE8CH213734	CNG	6/27/12	84
2474	5VCACDLE3CH213740	CNG	7/18/12	85
2475	5VCACSLE3DH215915	CNG	5/21/13	83
2477	5VCACSLE1DH216125	CNG	9/25/13	84
2479	5VCACDLE7CH213739	CNG	7/3/12	85
2480	5VCACSLE8DH215909	CNG	5/21/13	84
2481	3BPDX20X2KF105908	CNG	6/25/19	83
2482	3BPDX20X4KF105909	CNG	6/25/19	83
2483	3BPDX20X0KF105910	CNG	6/25/19	85
2484	3BPDX20X2KF105911	CNG	3/15/19	84
2485	3BPDX20X4KF105912	CNG	3/8/19	84
2486	3BPDX20X6KF105913	CNG	3/8/19	83
9003	LV244JX714081	Diesel	12/1/09	85
9032	VCEOL30BJ01836334	Diesel	5/24/12	85
9033	VCEOL30BA01836337	Diesel	5/29/12	86
69	3HAMMMML8GL155941	Diesel	2/10/20	85

2963

Vehicle Specifications (Cont.)			
Unit (Assigned ID #)	Service Performed	Type of Service	Notes
2008	Bulky Spare	Resi	Spare Rear Loader
2009	Bulky	Resi	Rancho Rear Load
2411	Recycle/Green Waste	Resi	Spare
2420	Recycle/Green Waste	Resi	Spare
2441	Recycle/Green Waste	Resi	Rte 874
2466	Recycle/Green Waste	Resi	Rte 752
2467	Recycle/Green Waste	Resi	Relief Driver
2468	Recycle/Green Waste	Resi	Rte 753
2469	Recycle/Green Waste	Resi	Rte 751
2470	Recycle/Green Waste	Resi	Rte 754
2471	Recycle/Green Waste	Resi	Rte 771
2472	Recycle/Green Waste	Resi	Spare
2473	Recycle/Green Waste	Resi	Rte 870 / 770
2474	Recycle/Green Waste	Resi	Spare
2475	Recycle/Green Waste	Resi	Commercial Spare
2477	Recycle/Green Waste	Resi	Rte 774
2479	Recycle/Green Waste	Resi	Rte 773
2480	Recycle/Green Waste	Resi	Rte 772
2481	Curbside Trash	Resi	Rte 871
2482	Curbside Trash	Resi	Rte 851
2483	Curbside Trash	Resi	Rte 854
2484	Curbside Trash	Resi	Rte 873
2485	Curbside Trash	Resi	Rte 853
2486	Curbside Trash	Resi	Rte 852
9003	Bulky Loader	Resi	Primary Rancho Loader
9032	Bulky Loader	Resi	Spare Loader
9033	Bulky Loader	Resi	Spare Loader
69	Toter Delivery	Resi	Toter Delivery

2964

Exhibit 8

Monthly Street Sweeping Reports

CONTRACTOR shall compile data on a daily basis and report the following information in electronic format to CITY on a monthly basis:

Daily Route Data – CONTRACTOR shall provide the following data for each portion of the route swept. Data shall include at a minimum, the following information:

1. Date of sweep
2. Route number
3. Street Sweeper identification number performing each route
4. Name of sweeper operator on each route
5. Total number of miles scheduled on entire route
6. Total number of miles swept on entire route
7. Beginning and ending odometer readings for portion of route completed
8. Location of Sweep Waste transfer site or dumpsite
9. Estimate of tons of debris collected and delivered to transfer site or dumpsite
10. Estimate of volume (in cubic yards) of debris collected and delivered to transfer site or dumpsite
11. Listing of streets not swept and reason for not sweeping
12. Approximate number of parked cars using on-street parking on each sweep route

13 Location of street trees that interfere with sweeping operations

841.1054 2820194.1

Exhibit 9

Contamination Auditor and Reporting Plan for SB 1383

Recyclable Materials and Organic Recyclable Material Contamination

CONTRACTOR must offer the Residential Service Recipients Containers in a size and collection frequency that matches their unique service needs to reduce Prohibited Container Contaminants. To support City's diversion goals, CONTRACTOR is only required to collect Recyclable Materials if they have been separated by the Service Recipient from Garbage and Organic Recyclable Materials and is only required to collect Organic Recyclable Materials if it has been separated by the Service Recipient from Garbage and Recyclable Materials.

As part of CONTRACTOR's Public Education Services under Section 14.01, CONTRACTOR agrees to provide outreach and customer service support to Service Recipients. Additionally, CONTRACTOR's route collection personnel will report to CONTRACTOR's supervisors if they observe potential Prohibited Container Contaminant problems, and/or insufficient collection capacity. For purposes of determining if Recyclable Materials or Organic Recyclable Materials are deemed to contain Prohibited Container Contaminants, if, by visual or digital inspection, Recyclable Materials are commingled with ten percent (10%) by weight or volume of Garbage or Organic Recyclable Materials, or if, by visual inspection, Organic Recyclable Materials is commingled with three percent (3%) by volume of Garbage or Recyclable Materials, then Recyclable Materials and/or Organic Recyclable Materials will be deemed to be contaminated and CONTRACTOR may take the steps outlined in **Article 7**.

MEMORANDUM

ITEM 9.4.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Stefan Heisler, Housing Manager

SUBJECT: **APPROVAL OF A GRANT APPLICATION AND LOCAL MATCH REQUIREMENT FOR THE POTENTIAL HEALTH AND WELLNESS CENTER AT THE MILLS CROSSING CIVIC CENTER**

RECOMMENDATION

Provide direction and approve the Resolution authorizing an application for, local match commitment to, and receipt of, Behavior Health Continuum Infrastructure Program (BHCIP) grant funds.

RESULT OF RECOMMENDED ACTION

Action on this item will allow staff to submit an application to the competitive statewide BHCIP $518.5 million Round 3 Launch Ready grant program (with $23,553,889 set aside for the Sacramento region), and approve a local funding match of 10% of the awarded grant amount for grant funding to construct a potential health and wellness center at the Mills Crossing Civic Center.

BACKGROUND

The approved concept plan (on December 6, 2021) for the Mills Crossing Civic Center (MCCC) includes approximately 80,000 to 120,000 square feet of community-commercial facilities including:

- a 30,000 square feet community arts center (including a 300-seat black box theater),
- a 30,000 square feet flexible community-commercial building,
- a potential +/- 30,000 square feet of sports/recreation space,
- a potential +/- 30,000 square feet health and wellness center,
- approximately 2.5 acres of public open space/plazas/neighborhood greens,
- and an estimated 120 to 125 units of mixed-income housing (where at least 25% of the units will be affordable).

As the Mills Crossing Civic Center project continues to progress, staff are looking for multiple funding opportunities to augment and maximize the leverage of the City's future investments in each component of this project. The subject of this report is a grant opportunity for the health

and wellness center. Future grant opportunities will likely be available for the theater, arts, community commercial, public open spaces, and housing components.

One such opportunity to augment and leverage the City's investment has arisen for the health and wellness component of the MCCC. The Department of Health Care Services (DHCS) was authorized through legislation in 2021 to establish BHCIP and award approximately $2.1 billion to construct, acquire, and expand properties and invest in outpatient healthcare infrastructure that addresses behavioral health needs.

DHCS issued a Request for Applications (RFA) on January 31, 2022 for BHCIP Round 3 Launch Ready grants in the amount of $518,500,000 with $23,553,889 set-aside for the Sacramento Area. The City may only apply for the amount set-aside for the Sacramento region. BHCIP Launch Ready grants provide funding to construct, acquire, and rehabilitate real estate assets to expand the behavioral health continuum of treatment and service resources . Proposed projects must demonstrate they have been through a planning process and are ready for implementation. Projects submitted by City applicants are required to make a local match of ten percent (10%) of grant amount.

Eligible projects include community wellness centers very similar to what has been envisioned for the future health and wellness component of the Mills Crossing Civic Center. While this grant would support the construction of the entire health and wellness center, behavioral health is envisioned as being only a portion of the services offered in addition to primary medical, dental, and vision care, specialty health (acupuncture, physical therapy, etc.), community health, and others.

Securing a BHCIP grant will significantly increase the long-term financial feasibility of the wellness center component of the Mills Crossing Civic Center and improve the City's long-term operational sustainability of the project.

Pending Council direction, staff will finalize the application funding request, and the local match requirement, for the application due date of March 31, 2022.

FISCAL IMPACT AND FUNDING SOURCE

The BHCIP grant award is capped at $23,553,889 within the Sacramento Region at large and requires a local match of 10% of the potential project grant amount eventually awarded by DHCS.

ATTACHMENT(S)

1. Resolution

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, AUTHORIZING APPLICATION AND LOCAL MATCH FOR BEHAVIORAL HEALTH CONTINUUM INFRASTRUCTURE PROGRAM GRANT FUNDS

WHEREAS, the Department of Health Care Services (Department) has issued a Request for Applications (RFA) as part of the Behavioral Health Continuum Infrastructure Program Round 3 Launch Ready grant (BHCIP); and

WHEREAS, BHCIP provides grant funding for projects that construct, acquire, and rehabilitate real estate assets to expand the behavioral health continuum of treatment and service; and

WHEREAS, the Department issued an RFA and Application on January 31, 2022 in the amount of $518,500,000 for assistance to all California jurisdictions; and

WHEREAS, the City Council of the City of Rancho Cordova desires to submit a BHCIP grant application package ("Application"), on the forms provided by the Department, for approval of grant funding to develop a health and wellness center at the Mills Crossing Civic Center site located at 10154-10179 Folsom Blvd as part of the community commercial portion of the Mills Crossing Civic Center Project; and

WHEREAS, the City of Rancho Cordova is eligible to apply for up to $23,553,889 in BHCIP funding; and

WHEREAS, City applicants for BHCIP funding are required to provide matching funds in the amount of ten percent (10%) of the grant amount.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AS FOLLOWS:

SECTION 1. The City Manager, or his designee, is hereby authorized and directed to apply for and submit to the Department the Application in an amount not to exceed $23,553,889.

SECTION 2. The City Council hereby agrees to commit matching funds in the amount of 10% of the grant amount, anticipated not to exceed Two Million Three Hundred Fifty Thousand Dollars ($2,350,000).

SECTION 3. In connection with the BHCIP grant, if the Application is approved by the Department, the City Manager, or his designee, of the City of Rancho Cordova is authorized to enter into, execute, and deliver any and all documents required or deemed necessary or appropriate to evidence and secure the BHCIP grant, including the required local funding match, the City's obligations related thereto, and all amendments thereto.

SECTION 4. The City Council hereby agrees to use the funds for eligible uses and allowable expenditures in the manner presented and specifically identified in the approved Application.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Donald Terry, Mayor

_____
Stacy Leitner, CMC
City Clerk

MEMORANDUM

ITEM 9.5.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Ben Chan, Assistant Civil Engineer

SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT NO. 174-2019-1 WITH R.E.Y. ENGINEERS, INC. EXTENDING THE TERM TO DECEMBER 31, 2023, INCREASING THE CONTRACT AMOUNT FROM $739,649 TO AN AMOUNT NOT TO EXCEED $764,649 AND ADDING SERVICES FOR THE CORDOVA VINEYARDS/LANE NEIGHBORHOOD STREET REHABILITATION PROJECT**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to execute Contract Amendment No. 174-2019-1 with R.E.Y. Engineers, Inc. extending the term to December 31, 2023, increasing the contract amount from $739,649 to an amount not to exceed $764,649 and adding services for the Cordova Vineyards/Lane Neighborhood Street Rehabilitation Project.

BACKGROUND

The City previously entered into a contract with R.E.Y. Engineers, Inc. for engineering services on November 19, 2019. The increase in the contract amount of $25,000 will allow R.E.Y. Engineers, Inc. to perform engineering support to include Zinfandel Dr generally from Folsom Boulevard to Cordova Lane, and Malbec Court.

The Cordova Vineyards/Lane Neighborhood Street Rehabilitation Project includes an overlay of existing pavement to improve the road surfaces, sidewalk repairs and curb ramp upgrades to achieve compliance with the Americans with Disabilities Act, storm drain upgrades to improve flood protection, and other incidental work as required.

The project will improve the aesthetics and safety in the neighborhood, and also improve traffic conditions for motorists, pedestrians and bicyclists.

The rehabilitation of the neighborhood streets is not only necessary, but also aligns with City goals to promote the positive image of Rancho Cordova; ensure a safe, inviting and livable

community; and ensure the availability of the best public services in the region while practicing sound financial management.

FISCAL IMPACT AND FUNDING SOURCE

Funding for this project will consist of Community Enhancement Funds, Gas Tax, Road Maintenance and Rehabilitation Fund, Measure A Maintenance Fund, Supplemental Transportation, Stormwater Enterprise Fund and Capital Infrastructure Fund.

This project is included in the City's current approved Capital Improvement Plan and in the 2021/22 budget.

ATTACHMENT(S)

1. Resolution
2. Contract Amendment No. 174-2019-1

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 AMENDMENT NO. 174-2019-1 WITH R.E.Y. ENGINEERS, INC. EXTENDING THE TERM TO DECEMBER 31, 2023, INCREASING THE CONTRACT AMOUNT FROM $739,649 TO AN AMOUNT NOT TO EXCEED $764,649, AND ADDING SERVICES FOR THE CORDOVA VINEYARDS/LANE NEIGHBORHOOD STREET REHABILITATION PROJECT

WHEREAS, the Parties entered into a Professional Services Agreement ("PSA") dated November 19, 2019 for the purpose of providing on-call civil engineering and surveying services; and

WHEREAS, Contract Amendment No. 174-2019-1 increases the contract amount from $739,649 to $764,649; and

WHEREAS, Contract Amendment No. 174-2019-1 extends the contract expiration date from December 31, 2022 to December 31, 2023; and

WHEREAS, this agreement will provide compensation to allow R.E.Y. Engineers, Inc. to assist the City to perform engineering support for additional scope of work to design Zinfandel Dr generally between Folsom Boulevard and Cordova Lane, and Malbec Court; and

WHEREAS, the contract will be paid through the Measure A, Capital Infrastructure, and Community Enhancement funds. The contract does not impact the general fund.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does authorize the City Manager to execute Contract Amendment No. 174-2019-1 with R.E.Y. Engineers, Inc., to increase the contract amount from $739,649 to an amount not to exceed $764,649, extend the contract expiration date from December 31, 2022 to December 31, 2023 and to add services for the Cordova Vineyards/Lane Neighborhood Street Rehabilitation Project, 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 March 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

FIRST AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF RANCHO CORDOVA AND R.E.Y. ENGINEERS, INC. FOR THE 2020 RC02 STREET REHABILITATION PROJECT

This First Amendment to the Agreement for Professional Services ("Amendment") is made by and between the City of Rancho Cordova ("City") and R.E.Y. Engineers, Inc. ("Professional") as of February 04, 2022. City and Professional are hereinafter collectively referred to as the "Parties."

RECITALS

WHEREAS, the Parties entered into a Professional Services Agreement ("PSA") dated November 19, 2019 for the purpose of providing on-call civil engineering and surveying services outlined in PSA Exhibit A; and

WHEREAS, this Amendment will add additional tasks for the Professional to provide to the City described in the Augmentation attached as Exhibit "C" and will increase the contract compensation amount from Seven Hundred Thirty-Nine Thousand Six Hundred Forty-Nine Dollars and No Cents ($739,649.00), to Seven Hundred Sixty-Four Thousand Six Hundred Forty-Nine Dollars and No Cents ($764,649.00), a budget increase of Twenty-Five thousand dollars ($25,000); and

WHEREAS, this Amendment will extend the end date from December 31, 2022 to December 31, 2023; and

WHEREAS, the Parties agree that changes to the term and services provided for in the PSA are necessary in order for the City to continue receiving services by Professional.

NOW, THEREFORE, the Parties hereto agree as follows:

AGREEMENT

1. The Parties agree to modify the end date of the PSA from December 31, 2031, to December 31, 2023. The first sentence of Section 1.1 of the PSA, "Performance Period," is amended to read as follows:

   "The term of this Agreement shall begin on the date first noted above and shall end on December 31, 2023, 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."

2. Section 2 of the PSA, "Compensation," provides for the City to pay Professional a sum not to exceed Seven Hundred Thirty-Nine Thousand Six Hundred Forty-Nine Dollars and No Cents ($739,649.00). The Parties agree to amend Section 2 of the PSA in order to increase the compensation amount to pay Professional for additional services. The first sentence of Section 2 of the PSA is amended to read as follows:

   "City hereby agrees to pay Professional a sum not to exceed Seven Hundred Sixty-Four Thousand Six Hundred Forty-Nine Dollars and No Cents ($764,649.00), notwithstanding any contrary indication that may be contained in Professional's proposal, for services to be performed and reimbursable costs incurred under this Agreement."

3. The attached Exhibit "C" is hereby added to the PSA which provides for additional services and compensation as specified therein.

4. All other terms and conditions in the PSA shall remain in full force and effect to the extent they are not in conflict with this Amendment.

5. The signatures of the Parties to this Amendment may be executed and acknowledged on separate pages or in counterparts which, when attached to this Amendment, shall constitute one complete Amendment.

IN WITNESS WHEREOF, the Parties have executed this Amendment on the day and year first above written.

CITY OF RANCHO CORDOVA	**PROFESSIONAL**
_____	_____
Cyrus Abhar, City Manager	**James Fisher,** Principal
Date: _____	Date: _____

Attest:

_____
Stacy Leitner, CMC
City Clerk

Date: _____

Approved as to Form:

_____
Adam Lindgren, City Attorney

Date: _____

Attachments:
Exhibit C

September 1st, 2021

Ben Chan
City of Rancho Cordova
Public Works Department
2729 Prospect Park Drive
Rancho Cordova, CA 95670 *sent via email: BChan@cityofranchocordova.org*

Subject: 2020 Neighborhood Street Rehabilitation Project – RC02: Contract Amendment Request #1

Dear Mr. Chan,

Thank you for the opportunity to work with the City of Rancho Cordova (City) on the 2020 Neighborhood Street Rehabilitation Project – RC02 (Project). As the Project has progressed, we have incurred costs for unanticipated items of work outside of our initial scope of services for which we are now requesting a contract amendment to augment our budgeted amount to account for these additional services. We held off on this amendment request in an effort to minimize the additional costs and attempt to absorb as much of the extra work into our original budget as possible. The additional items of work are described below.

Our initial scope and fee included a utility coordination task that was limited to only the distribution of project A-Letters. In addition to the distribution of A-Letters, we created and sent B-Letter packages to the utility owners with facilities in conflict with this project and performed considerable amounts of coordination with those utility owners. Our original scope and fee included an assumption that stated "no utility relocations will be required other than adjustments to grade of City owned utilities." We successfully coordinated with PG&E to have four shallow gas services lowered out of conflict with the Full Depth Reclamation with Cement (FDR-C) roadway section ahead of the start of construction for Phase 2.

As a part of the City's Phase 1 65% PS&E comments, the City performed a detailed site walk and we were provided the locations of damaged curb, gutter and sidewalk that the City wished to have replaced with this project. With the City's 90% PS&E comments, a portion of Dolecetto Dr., Barbera Way, Lambrusca Dr., Ribier Way, Charbono Way, Chianti Ct., Zaggos Ct., Coloma Frontage (SW), Milazzo Way, and Pedro Way were added to the scope of Phase 1. R.E.Y. Engineers performed a detailed site walk of the added streets to identify areas of damage and to review the locations of resident comments collected from the MetroQuest survey. After the site walk, we compiled our notes and photos into a report for the City's review and ultimate acceptance.

As a result of reorganizing the streets between phases, the already completed phase 1 and phase 2 geotechnical Pavement Engineering Reports we consolidated and combined into the *RC02 Neighborhood Street Pavement Engineering Report.* This report superseded the individual phase 1 and phase 2 reports and included the geotechnical findings for all streets within the project limits.

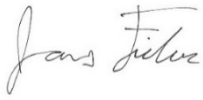
In developing our initial scope and fee, we made assumptions based on the street PCI data regarding which streets would receive pavement rehabilitation treatments and which streets would receive roadway reconstruction treatments by means of FDR-C. It was planned that streets identified as having a PCI of 26 or less would receive full roadway reconstruction and on these streets our subconsultant marked the depths of the existing utilities to proactively identify shallow utilities that may be in conflict with the FDR-C operations. For the streets initially planned to receive a pavement rehabilitation treatment, we performed pavement analytics and a site walk to identify digout locations. Once we received the results of the geotechnical investigations, we learned that, in addition to the streets previously identified for roadway reconstruction, Beclan Drive and Momolo Court were also good candidates for FDR-C. Contrarily, we learned that Tannat Way, Saltana Way, Nieretto Court, Malvasia Way, Sarda Way, Vernaccia Circle, Zibibba Way and Negrara Way were all in better shape than initially anticipated and switched from full roadway reconstruction to pavement rehabilitation. To accommodate these changes in scope, a second round of utility investigation and digout identification tasks were performed.

Per the City's request, improvements to Zinfandel Drive and Malbec Court were added to the Phase 2 plan set as a bid alternate. Additional work to incorporate these improvements included the development of plan sheets, details, quantity take offs, and striping configuration as well as a minimal amount of geotechnical investigation.

The costs accumulated for the additional services rendered, as described above, was $31,834.00. In an effort to partner with the City, we are only requesting that $25,000 be added to our current total contract amount of $739,649.00, amending it to a new total of $764,649.00.

If you have any questions or comments, please don't hesitate to contact me.

Sincerely,



Jim Fisher, PE, QSD/P

MEMORANDUM

ITEM 9.6.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Stacy Delaney, Community Enhancement and Investment Senior Management Analyst
Edgar Medina, Principal Engineer

SUBJECT: **A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT NO. 2020-183-1 WITH MARK THOMAS & COMPANY, INC. TO INCREASE THE CONTRACT AMOUNT FROM $206,800.00 TO AN AMOUNT NOT TO EXCEED $319,235 AND EXTEND THE CONTRACT TERM TO JUNE 30, 2023 FOR THE SOIL BORN FARMS PARKING LOT AND DRIVEWAY IMPROVEMENTS PROJECT AT THE AMERICAN RIVER RANCH TO INCREASE SAFETY AND PROMOTE LIVABILITY**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would authorize the City Manager to execute Contract Amendment No. 2020-183-1 to increase the contract amount from $206,800 to $319,235 and extend the contract term to June 30, 2023 for continued engineering design and construction management services with Mark Thomas & Company, Inc. for Soil Born Farms Parking Lot and Driveway Improvements at the American River Ranch to increase safety and promote livability.

BACKGROUND

The Soil Born Farms Urban Agriculture & Education Project's mission is to create an urban agriculture and education project that empowers youth and adults to discover and participate in a local food system that encourages healthy living, nurtures the environment and grows a sustainable community. The goals that support that mission are: 1) Local Organic Food Production, 2) Community Education, 3) Food Access for All and 4) Reconnect with the Land.

In an effort to support the needs of Soil Born Farms, the Parking Lot Improvement Project begins at the facility's entrance off of Chase Drive and extends to existing unpaved parking lot. The Soil Born Farms parking lot, which is currently unpaved, will be paved and improved with lighting to provide approximately 60 new paved parking stalls. Site amenities will include a widened driveway, deer fence, an entry gate, post and cable railing, entry signs, drainage facilities and lighting.

In October 2021, the City Council approved a design and construction contract with Mark Thomas & Company, Inc. for the current phase of improvements and in August, 2021, the City Council approved a construction contract with Western Engineering Contractors, Inc.

The project is nearing construction, but has experienced additional design and construction management scope of work effort to keep the project on track to meet the operational needs of Soil Born Farms. Therefore, this contract amendment is for additional scope of work related to design support, construction management and materials testing.

FISCAL IMPACT AND FUNDING SOURCE

The Community Enhancement & Investment Fund will provide an additional $112,435 for the contract amendment.

ATTACHMENT(S)

1. Resolution
2. Contract No. 2020-183-1

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 AMENDMENT 2020-183-1 WITH MARK THOMAS & COMPANY, INC., TO INCREASE THE CONTRACT AMOUNT FROM $206,800 TO AN AMOUNT NOT TO EXCEED $319,325 AND EXTEND THE CONTRACT TERM TO JUNE 30, 2023 FOR CONTINUED ENGINEERING DESIGN AND CONSTRUCTION MANAGEMENT SERVICES ON THE SOIL BORN FARMS PARKING LOT AND DRIVEWAY IMPROVEMENTS PROJECT AT THE AMERICAN RIVER RANCH TO INCREASE SAFETY AND PROMOTE LIVABILITY

WHEREAS, in June of 2019, Mark Thomas & Company, Inc. was selected and placed on the pre-qualified list of consultants in response to the 2019 Request for Qualifications to Establish a Pre-Qualified List of Consultants for Civil Design Services, Professional Land Surveying, Environmental Services and Stormwater Services; and

WHEREAS, based upon Mark Thomas & Company, Inc.'s demonstrated competence and professional expertise, the City desired to enter into an agreement for professional services for the Soil Born Farms Parking Lot and Driveway Improvements Project at the American River Ranch; and

WHEREAS, on October 19th, 2020, City Council approved Professional Services Agreement (PSA) No. 2020-183 for an amount not to exceed $206,800 for the purposes of providing engineering services for the Soil Born Farms Parking Lot and Driveway Improvements Project at the American River Ranch; and

WHEREAS, funding for the PSA includes Community Enhancement and Investment infrastructure funds and the State Wildlife Conservation Board grants awarded to the County of Sacramento, and reimbursable to the City of Rancho Cordova, for the American River Ranch parking lot Phase I and II grants; and

WHEREAS, this contract amendment will increase the contract amount from $206,800 to an amount not to exceed $319,235, for additional scope of work related to design support, construction management and materials testing to complete the project; and

WHEREAS, this contract amendment will extend the contract term to end on June 30, 2023.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does authorize the City Manager or his designee to execute Contract Amendment No. 2020-183-1 with Mark Thomas & Company, Inc. in a form approved by the City Attorney to increase the contract amount from $206,800 to $319,235 and to extend the contract term to end on June 30, 2023 for continued engineering design and construction management services on the Soil Born Farms Parking Lot and Driveway Improvements Project at the American River Ranch to increase safety and promote livability.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

FIRST AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF RANCHO CORDOVA AND MARK THOMAS & COMPANY, INC. FOR THE SOIL BORN FARMS PARKING LOT AND DRIVEWAY IMPROVEMENTS PROJECT

This First Amendment to the Agreement for Professional Services ("Amendment") is made by and between the City of Rancho Cordova ("City") and Mark Thomas & Company, Inc. ("Professional") as of December 31, 2021. City and Professional are hereinafter collectively referred to as the "Parties."

RECITALS

WHEREAS, in June of 2019, Mark Thomas & Company, Inc. was selected and placed on the pre-qualifed list of consultants in response to the 2019 Request for Qualifications to Establish a Pre-Qualified List of Consultants for Civil Design Services, Professional Land Surveying, Environmental Services and Stormwater Services; and

WHEREAS, based upon Mark Thomas & Company, Inc's demonstrated competence and professional expertise, the City desired to enter into an agreement for professional services for the Soil Born Farms Parking Lot and Driveway Improvements Project at the American River Ranch; and

WHEREAS, on October 19th, 2020, City Council approved Professional Services Agreement (PSA) No. 2020-183 in an amount not to exceed $206,800 for the purposes of providing engineering services for the Soil Born Farms Parking Lot and Driveway Improvements Project at the American River Ranch; and

WHEREAS, funding for the PSA includes Community Enhancement Infrastructure Funds and the State Wildlife Conservation Board grants awarded to the County of Sacramento, and reimbursable to the City of Rancho Cordova, for the American River Ranch parking lot Phase I and II grants; and

WHEREAS, this contract amendment will increase the contract amount from $206,800 to an amount not to exceed $319,235, for additional scope of work related to design support, construction management and materials testing to complete the project; and

WHEREAS, this contract amendment will extend the contract term to end on June 30, 2023.

WHEREAS, the Parties agree that changes to the term and services provided for in the PSA are necessary in order for the City to continue receiving services by Professional.

NOW, THEREFORE, the Parties hereto agree as follows:

AGREEMENT

1. The Parties agree to modify the end date of the PSA from December 31, 2021, to June 30, 2023. The first sentence of Section 1.1 of the PSA, "Term of Service," is amended to read as follows:

> "The term of this Agreement shall begin on the date first noted above and shall end on June 30, 2023, and 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 in Section 8."

2. Section 2 of the PSA, "Compensation," provides for the City to pay Professional a sum not to exceed $206,800.00. The Parties agree to amend Section 2 of the PSA in order to increase the compensation amount to pay Professional for additional services. The first sentence of Section 2 of the PSA is amended to read as follows:

   "City hereby agrees to pay Professional a sum not to exceed Three Hundred Nineteen Thousand Two Hundred Thirty-Five Dollars ($319,235), notwithstanding any contrary indication that may be contained in Professional's proposal, for services to be performed and reimbursable costs incurred under this Agreement."

3. The document entitled "Scope of Work," attached hereto as **Exhibit A**, shall replace and supersede the PSA's **Exhibit A**.

4. All other terms and conditions in the PSA shall remain in full force and effect to the extent they are not in conflict with this Amendment.

5. The signatures of the Parties to this Amendment may be executed and acknowledged on separate pages or in counterparts which, when attached to this Amendment, shall constitute one complete Amendment.

6. **Contract Administration.** This Agreement shall be administered by Stacey Delaney ("Contract Administrator"). All correspondence shall be directed to or through the Contract Administrator or his or her designee.

   Notices. Any written notice to Professional shall be sent to:

   James Pangburn
   Project Manager
   Mark Thomas & Company Inc
   701 University Avenue
   Sacramento, Ca. 95825

   Email Address (for Insurance Update Requests):
   jpangburn@markthomas.com

   Any written notice to City shall be sent to:

   Stacey Delaney
   City of Rancho Cordova
   2729 Prospect Park Drive
   Rancho Cordova, Ca. 95670
   Email: sdelaney@cityofranchocordova.org

IN WITNESS WHEREOF, the Parties have executed this Amendment on the day and year first above written.

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

Date:_____

PROFESSIONAL

_____
Matt Brogan, Vice President

Date:_____

SCOPE OF WORK

TASK 1. ADDITIONAL CONSTRUCTION SUPPORT

Mark Thomas will continue to provide design support services during construction on a time and materials basis. This scope assumes construction in Spring 2022.

TASK 2. ADDITIONAL FINAL DESIGN

This scope includes additional effort to complete the final design. The original scope of work included two (2) rounds of review and comment. The final effort included six (6) rounds of review and comment. It is noted this effort only applies to the civil plans only. No additional budget for the landscape architects is included with this request.

TASK 3. CONSTRUCTION MANGEMENT AND INSPECTION SERVICES

Task 3.1. ADDITIONAL CONSTRUCTION MANAGEMENT AND INSPECTION

Mark Thomas will continue to provide design support services during construction on a time and materials basis. This scope assumes construction in Spring 2022.

Task 3.2. ADDITIONAL MATERIALS TESTING SERVICES

Geocon will continue to provide design support services during construction on a time and materials basis. This scope assumes construction in Spring 2022.

Deliverables

- Final PS&E
- Additional Design Support During Construction
- Additional Construction Management and Inspection Services

COST PROPOSAL FOR PROJECT SCOPE: Rancho Cordova-Soil Born Farms Parking (AM #1)

		Sr. Project Manager $270	Project Engineer $173	Design Engineer II $147	Design Engineer I $121	RE/Structural Representative $263	Sr. Project Accountant $165	Sr. Project Coordinator $154	Total Hours	Total MT Cost	Subs Geocon	TOTAL COST
1.0	**CONSTRUCTION SUPPORT**											
1.1	Design Support During Construction & Bid Suppo	8	66		40		2	4	120	$19,364	-	$19,364
	Subtotal Phase 1	**8**	**66**	**0**	**40**	**0**	**2**	**4**	**120**	**$19,364**	**$0**	**$19,364**
2.0	**FINAL PS&E**											
2.1	Additional Final Design			67	27				94	$13,116	-	$13,116
	Subtotal Phase 2	**0**	**0**	**67**	**27**	**0**	**0**	**0**	**94**	**$13,116**	**$0**	**$13,116**
3.0	**CONSTRUCTION MANAGEMENT & INSPECTION SERVICES**											
3.1	Additional CM & Inspection					285			285	$74,955	-	$74,955
3.2	Additional Materials Testing Services								0	$0	5,000	$5,000
	Subtotal Phase 3	**0**	**0**	**0**	**0**	**285**	**0**	**0**	**285**	**$74,955**	**$5,000**	**$79,955**
TOTAL HOURS		**8**	**66**	**67**	**67**	**285**	**2**	**4**	**499**			
OTHER DIRECT COSTS										**$0**	**$0**	**$0**
TOTAL COST		**$2,160**	**$11,418**	**$9,849**	**$8,107**	**$74,955**	**$330**	**$616**		**$107,435**	**$5,000**	**$112,435**

MEMORANDUM

ITEM 9.7.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Darcy Goulart, Planning Manager

SUBJECT: **2021 GENERAL PLAN ANNUAL REPORT TO INCLUDE THE HOUSING ELEMENT AND MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN ANNUAL REPORT**

RECOMMENDATION

Receive the 2021 General Plan and Housing Element Annual Report to include the Multi-Jurisdictional Hazard Mitigation Plan as required by State law.

RESULT OF RECOMMENDED ACTION

By receiving this report, the City Council is satisfying its obligation under State law. No further action is required on the part of the City Council. The purpose of the report is to provide an annual accounting of implementation of the City's General Plan.

BACKGROUND

General Plan:
State law requires that the City complete an annual review of the General Plan by April 1st of each year, covering the previous calendar year. The purpose of the review is to:

- Identify compliance with the State General Plan Guidelines;
- Identify status of the General Plan and the process towards its implementation;

Housing Element:

- Describe the City's progress in meeting its Regional Housings Needs Allocation (related to areas zoned to allow for affordable housing); and
- Describe progress in addressing/removing governmental constraints to the maintenance, improvement, and development of housing.

Further, State law requires that the City submit the report to the Office of Planning and Research (OPR) and the department of Housing and Community Development (HCD). Completion of the report may make the City eligible for various State grants and other programs.

The 2021 annual report covers the calendar year (Planning Year) 2021 (January 1 to December 31).

As in previous reports, staff has included a summary outlining the major accomplishments of the City in 2021 related to General Plan implementation. The Report also includes information on the status of residential construction compared to the City's obligation under the current Regional Housing Needs Plan/Regional Housing Needs Assessment. The tables are used to collect and report this data are required by HCD.

The annual report can be used as a guide for development of the 2022-2023 fiscal budget for the City, helping departments plan their budgets with General Plan implementation in mind.

Multi-Jurisdictional Hazard Mitigation Plan:

The Multi-Jurisdictional Hazard Mitigation Plan (LHMP) assesses natural hazards of concern to Sacramento County and Cities within; evaluates risk to life safety, public health, property, and the environment; and evaluates mitigation measures to reduce these risks and vulnerabilities, minimize losses, and increase community resilience:

- Annual Review describing the City's progress on the Hazard Mitigation Plan Action Items.

ANALYSIS

General Plan

As indicated in previous reports, staff identified a concern that the actions of the General Plan may not be accurately programmed as they relate to implementation. In an effort to keep the General Plan current and ensure it remains a useful document that sets the policy direction for the City, staff had previously recommended that a more detailed analysis of the General Plan actions be undertaken. This analysis would re-program, as appropriate, some of the General Plan action items as follows:

1. Departments that are more appropriate for leading the work effort;
2. Realign the timing of the actions in keeping with Council-identified priorities, and;
3. Update the General Plan Map.

This effort could also serve as an opportunity to drop actions that are no longer necessary or appropriate for Rancho Cordova and create new ones that are. Completion of this task would result in General Plan amendments to the Implementation Element and General Plan Map. This effort was not programmed into previous year's work plans for budget reasons. Following completion of the 2021 review, staff is again recommending that this effort be undertaken.

Housing Element

Staff completed the 6th Cycle update to the Housing Element for the period of 2021-2029 and received HCD certification on September 27, 2021.

Staff will continue implementation of preexisting activities and will begin implementation of new activities identified in the Housing Element and monitor the production of units at the income levels required by the regional housing needs allocation (RHNA). The number of units produced during the 2021 calendar year are listed in **Table 1: RHNA Allocation and Production for Housing Element Cycle 2021-2029**, below. Affordable housing projects continue to face a

challenging competitive environment for available affordable housing grant funding. However, additional State funding for affordable housing is anticipated to be available over the next several years and staff expect to proceed with planning for one or more new projects in 2022.

New single-family home sales continue to be affordable to households with moderate incomes (sales prices up to $520,250) and above moderate incomes (sales prices above $525,250). No new single-family homes were sold at an affordable price for households with low incomes (sales prices up to $345,000). The most affordable new single-family home sold for $396,000 in the Veranda at Stone Creek neighborhood.

Table 1: RHNA Allocation and Production for Housing Element Cycle 2013-2021

Income Level	RHNA Allocation by Income Level	2021 Production	Total Units Produced to Date 2021-2029	Total Remaining RHNA by Income Level 2021-2029
Very Low	2,115	0	100	2,115
Low	1,274	0	0	1,274
Moderate	1,684	235	235	1,449
Above Moderate	3,994	317	317	3,677
Total Units	9,067	552	552	8,515

The current Housing Element cycle extends from 2021 to 2029.

Multi-Jurisdictional Hazard Mitigation Plan
The annual review of the Action Plan has been updated to show the 2021 status. Attachment 5**: City of Rancho Cordova Hazard Mitigation Action Plan**. The Multi-Jurisdictional Hazard Mitigation Plan (HMP, 2021-2026) update process finished in October 2021 with the City adopting the updated HMP on March 7, 2022.

FISCAL IMPACTS

The City anticipates that this annual update will result in a minimal fiscal impact as the accomplishments are a balance of quality of living improvements, internal infrastructure improvements, staff training, and revenue generating projects.

Notable 2021 Projects





2021 Rancho Cordova Youth Center Under Construction



Cordova Community Pool Completed in June 2021, CRPD staff photo



Rio Del Oro Infrastructure Construction started in 2021



Zinfandel Drive/Hwy 50 Interchange Improvements: Completed in Oct 2020. Enjoyed in 2021



Community Art SMUD utility Box Wraps

ATTACHMENTS

1. 2021 General Plan and Housing Element Annual Report
2. General Plan Implementation Action Table 2021
3. Housing Element Status Action Table 2021
4. Housing Element Annual Progress Report 2021
5. City of Rancho Cordova (HMP) Action Plan 2021 Status

CITY OF RANCHO CORDOVA
2021 GENERAL PLAN ANNUAL REPORT

PREPARED BY THE PLANNING DEPARTMENT
COMPLETED MARCH 2022

CITY COUNCIL

Donald Terry, Mayor
Linda Budge, Vice-Mayor
Garrett Gatewood, Council Member
Sirisha Pulipati, Council Member
David Sander, Council Member

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INTRODUCTION

PURPOSE OF THE ANNUAL REPORT

California law requires each city to adopt a comprehensive, long-term General Plan to guide the physical development of the incorporated city and land outside city boundaries that bears a relationship to its planning activities. The General Plan serves as a blueprint for future growth and development; the blueprint to "Build a City." As such, the plan contains policies and programs designed to provide decision makers with a solid foundation for land use and development decisions.

State law further requires the City to complete an Annual Report by April of each calendar year and submit the report to the Office of Planning and Research and the Department of Housing and Community Development. This report must:

- Identify compliance with the State General Plan Guidelines;
- Identify status of the General Plan and the process towards its implementation;
- Describe the City's progress in meeting its Regional Housings Needs Allocation; and
- Describe progress in addressing/removing governmental constraints to the maintenance, improvement, and development of housing.

State law requires that the General Plan Annual Report be complete and submitted to the State by April 1st of each year. The report covers the previous calendar year for which it is being completed. This Annual Report looks at the City's progress towards implementing its General Plan during the 2021 planning period.

RECOMMENDATIONS

It is recommended that the City update the Implementation Matrix in the General Plan by adjusting timing, responsible parties, and establishing new action items, as appropriate, during the 2022 Planning Year. This action will require amendment of the General Plan and will help ensure that the goals and policies of the Plan are being achieved by keeping the Plan current. Funding for this task should be included in the 2022-2023 fiscal year budget for all departments.

Tracking the implementation of the General Plan is paramount in achieving the vision of the City that the General Plan establishes and providing this information in a transparent report holds the City accountable to the public for the goals it has set.

This document will provide a status update for major City accomplishments and housing element action items for the 2021 Calendar year. This document will be reviewed for adoption by the City of Rancho Cordova City Council on March 21, 2022 to adhere to the state required due date of April 1, 2022 (Government Code Section 65400(a)(2)).

A copy of the current Implementation Element has been included with this report to indicate the status of all General Plan policies. This included the Implementation plan for the 2021-2029 Housing Element Update.

ADMINISTRATION AND STATUS OF THE GENERAL PLAN

Upon incorporation in July 2003, the City adopted the Sacramento County General Plan. Soon thereafter, the City embarked on an intensive process of crafting the first General Plan for the City. The resulting plan was adopted on June 26, 2006. More than 50 workshops, stakeholder meetings, study sessions, and public hearings were held to understand the vision and desires for Rancho Cordova and to develop the blueprint to build the future City.

The General Plan for Rancho Cordova includes not only the seven mandated elements of a General Plan as required by State law (land use, circulation, housing, noise, safety, conservation, and open space) but additional topics of special and unique concern to the community, including urban design, economic development, air quality, historic and cultural resources, and infrastructure, services, and finance. As the basis for local government decision-making, the plan includes goals and policies by which projects are analyzed against and actions to be taken by the City necessary to achieving the overall vision for the community.

DEPARTMENTAL RESPONSIBILITIES

Implementation of the General Plan is the responsibility of the numerous departments and teams in the City. Each action item identified in the General Plan has been tasked to one or more City departments. The General Plan includes an Implementation Matrix that lists each of the action items in the plan and identifies the responsible agency, timing, and funding source for each action. City departments responsible for implementation of the General Plan include the:

- City Manager's Office
- Planning Department
- Building Department
- Public Works Department
- Finance Department
- Economic Development Department
- Redevelopment Agency; (no longer valid)
- Housing Division
- Neighborhood Services Division
- Police Department.
- Public Information Office
- Other Agencies/Committees to be established by the Council

There are several other governmental agencies that provide services within the City's corporate boundary. While these agencies are not part of the City's operational structure and not directly responsible for implementation of the General Plan, the City does coordinate its activities with these other agencies and relies upon their assistance for full implementation of the General Plan. These additional agencies include, but are not limited to, the:

Sacramento Metropolitan Fire District;
Cordova Recreation and Parks District;
Folsom-Cordova Unified School District; and
Elk Grove Unified School District.'
Sacramento City Unified
Sacramento County

AMENDMENTS TO THE GENERAL PLAN

State law allows the City to amend any of its mandated elements of General Plan up to four times per calendar year. Amendments may be proposed and acted upon at any time during the year and one action may include multiple amendments. Any changes to the General Plan require public hearings by the City Council and evaluation of the environmental impacts as required by the California Environmental Quality Act.

There was one (1) General Plan Amendment that occurred in the year of 2021. The Amendment included the Housing Element that was updated and adopted by the City of Rancho Cordova City Council in June 2021 (Housing Element 2021-2029). This 2021 update satisfies the legally mandated update to reflect the 2021-2029 Regional Housing Needs Allocation. In addition, the Multi-Jurisdictional Hazard Mitigation Plan (2021-2026) was approved and adopted by the City of Rancho Cordova on March 7, 2022.

This annual report includes the General Plan and Housing Element reports as required by State law.

GENERAL PLAN ELEMENTS AND IMPLEMENTATION PROGRESS

ELEMENT SUMMARY

The General Plan for Rancho Cordova includes twelve elements that cover a variety of topics as provided for in State law. Table 1 lists these elements and shows how they relate to the State requirements (State General Plan Guidelines). The contents of these elements are summarized below. The contents of the General Plan are consistent with the latest edition of the State General Plan Guidelines for content and scope.

TABLE 1
ELEMENTS OF THE GENERAL PLAN AND RELATIONSHIP TO STATE LAW

Elements of the Rancho Cordova General Plan	Topics Required by State Law							
	Land Use	Circulation	Housing	Conservation	Open Space	Noise	Safety	Optional Topic
Land Use	X			O	O			
Urban Design	O							X
Economic Development	O		O					X
Housing			X					
Circulation		X	O					
Open Space, Parks, and Trails		O	O		X			
Infrastructure, Services, and Finance		O	O					X
Natural Resources	O			X				
Cultural and Historic Resources	O							X
Safety	O						X	
Air Quality	O	O						X
Noise	O	O				X		

Notes:

X - Indicates that this element directly addresses the State required topic

O - Indicates that information in this element is related to the State required topic

Section 1-Introduction

This section contains general history and background into the City, but does not contain action programs that require annual monitoring.

Section 2-Land Use Element

The Land Use Element provides the central framework for the General Plan and serves as a compass to guide planners, the general public, and decision makers on the desired pattern of development in Rancho Cordova. It describes both existing and future land use activity, the latter of which was designed to achieve the City's long-range goals for physical development. This Element also identifies the distribution, location, and intensity of all land uses types throughout the City. Text, maps, and diagrams establish the blueprint for future land uses within the City and describe how these uses are integrated with the other General Plan elements and policies.

Section 3-Urban Design Element

The Urban Design Element provides policies and design concepts relating to the form and character of new private development and public improvements, along with focused plans for areas of the City in need of special design attention. The Element also includes policies and implementation programs aimed at creating Rancho Cordova as a unique place with a strong, memorable character.

Section 4-Economic Development Element

The Economic Development Element attempts to identify the City's strengths and weaknesses as it seeks to provide a full range of employment, housing, retail/service, and entertainment options to residents. The Element establishes goals, policies, and actions to improve the City's prosperity, maintain regional competitiveness, ensure accessibility to assets, market the City, and, perhaps most importantly, set fair and equitable rules for development. This Element is also intended to create wealth for the citizens of Rancho Cordova by providing opportunities to increase property values, fully utilize their properties, offer continuing education opportunities, and support entrepreneurship.

Section 5-Housing Element

The purpose of the Housing Element is to identify housing solutions that solve local housing problems and to satisfy the Regional Housing Needs Allocation requirements. The City recognizes that housing is a need that is met through many resources and interest groups. This Element establishes the local goals, policies, and actions (programs) the City will implement and/or facilitate to solve the identified housing issues.

Section 6-Circulation Element

The Circulation Element describes existing and future transportation conditions and systems. The Element establishes goals, policies, and actions that will guide the City's circulation system, including the roadway network, transit facilities and services, and bicycle and pedestrian facilities. The text, maps, and diagrams are a basis for the development of the City's transportation network.

Section 7-Open Space, Parks, and Trails Element

The Open Space, Parks, and Trails Element identifies the need to maintain existing open space and natural recreational areas, as well as to create additional areas for the enjoyment of residents and the protection of the environment. The goals, policies, and actions provided are intended to achieve the City's vision of open spaces that are accessible to all members of the community. This Element establishes a policy framework and action program for the improvement, expansion, and maintenance of the City's open space.

Section 8-Infrastructure, Services, and Finance Element

This Element seeks to identify the ideal level and type of infrastructure and service provision necessary to achieving the goal of becoming a first-rate city. It also explores possible mechanisms to finance infrastructure and service improvements. The goals, polices, and actions contained in the Element set forth methods for ensuring that Rancho Cordova provide the highest service levels possible.

Section 9-Natural Resources Element

The Natural Resources Element identifies the ways in which Rancho Cordova will protect, maintain, and enhance its natural resources for the betterment of current residents and future generations. It also attempts to balance the present needs of resource users with the need for resource conservation for the common good. The goals, policies, and actions in this Element will foster the preservation of Rancho Cordova's many valuable natural resources, including wildlife, habitat, water resources, soils, and mineral resources.

Section 10-Cultural and Historic Resources Element

The Cultural and Historic Resources Element seeks to identify and protect locally important sites, buildings, and memorabilia that reflect the history of the community. It also seeks to honor the people of Rancho Cordova by promoting the inclusion of cultural arts into the fabric of the community as a component that contributes to the overall quality of life for residents, workers, and visitors. The Element provides goals, policies, and actions designed recognize and preserve the history of the area and celebrate the diversity of the City's population.

Section 11-Safety Element

The Safety Element seeks to recognize and remedy both present and anticipated concerns about the on-going well being of City residents, employees, and visitors. The goals, policies, and actions identify viable solutions to minimize the potential risk of death, injuries, property damage, and economic hardship and social displacement resulting from fires, floods, earthquakes, landslides, and other hazards. The Multi-Jurisdictional Hazard Mitigation Plan is included in the Safety Element. Additionally, this Element addresses safety and hazards related to airport land use, groundwater contamination, traffic and pedestrian accidents at interfaces with rail lines, the potential release of hazardous materials into the community, and general issues related to police and fire protection services.

Section 12-Air Quality Element

The Air Quality Element establishes a framework for how the City will improve air quality in the Planning Area and work with other communities in the region and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to improve air quality in the Sacramento Valley Air Basin. This Element also underscores the effects that land use patterns and the resulting transportation behavior have on air quality. The goals, policies, and actions outlined in this Element focus on improving air quality through embracing regional coordination, "smart growth" land use concepts, transportation demand management, energy conservation, cleaner industries and vehicles, and public education.

Section 13-Noise Element

The goal of the Noise Element is to identify the major sources of noise within the City and discuss the City's role in ensuring comfortable and safe noise levels throughout the community. The goals, policies, and actions provided will, when implemented, improve the noise environment in the Planning Area.

Section 14-Implementation Element

This section contains a complete list of the action programs contained within each element. The implementation element was intending to assist staff in the monitoring the progress of those programs.

STATUS OF IMPLEMENTATION ACTIONS OF THE GENERAL PLAN

Attached with this report is the 2021 Implementation Element progress assessment. While some of the programs have been completed or remain incomplete, a majority of the programs within the General Plan remain active and ongoing.

REGIONAL HOUSING NEEDS AND REMOVAL OF GOVERNMENTAL CONSTRAINTS TO HOUSING

In an effort to address state-wide housing needs, the State of California requires regions to address housing issues and needs based on future growth projections for the area. The Department of Housing and Community Development (HCD) allocates regional housing needs numbers to regional councils of governments throughout the state. The Regional Housing Needs Plan (RHNP) for the Sacramento area is developed by the Sacramento Area Council of Governments (SACOG), and allocates to cities and the unincorporated counties their "fair share" of the region's projected housing needs, or the Regional Housing Needs Allocation (RHNA). The needs plan allocation is broken down into four household income groupings over the planning period.

The intent of the RHNP is to ensure that local jurisdictions address not only the needs of their immediate areas but also fill the housing needs for the entire region. Additionally, a major goal of the RHNP is to ensure that every community provides an opportunity for a mix of housing to all economic segments of its population. State law requires that the City identify its progress in meeting its share of the regional housing needs allocation and identify local efforts to remove governmental constraints to housing. The City's General Plan Housing Element identifies solutions to meeting these objectives and reflects the 2021-2029 Regional Needs Plan and Regional Housing Needs Allocation for the Sacramento region.

2021-2029 Regional Housing Needs Plan

The Sacramento Area Council of Governments (SACOG), along with the City and the other jurisdictions in the region, has prepared the Regional Housing Needs Plan (RHNP) for the 2021-2029 planning period. The 2021-2029 RHNP for the Sacramento region identified a total number of dwelling units as the City's "fair share" of the regional needs total. Table 2 identifies the breakdown of this number for each of the four income categories covered by the RNHP for the City.

TABLE 2
CITY OF RANCHO CORDOVA
SHARE OF THE REGIONAL NEEDS ALLOCATION
FOR 2021-2029

Income Group	2021-2029 RHNA
Extremely Low	1,057 units
Very Low	1,057 units
Low	1,274 units
Moderate	1,684 units
Above Moderate	3,994 units
Total	9,067 units

Source: SACOG, Regional Housing Needs Plan for Sacramento County; City of Rancho Cordova.

The RHNP and RHNA only require the City to identify a suitable amount of land needed to build the number of units allocated to the City under the RHNA. The Housing Element was updated and certified by HCD in 2021 to reflect the 2021-2029 RHNA.

Table 3 summarizes the number of units permitted in the City in 2021 by income category and dwelling type. Table 4 summarizes the cumulative total number of units permitted in the City during the current RHNP planning period. All numbers are based on issuance of building permits from January 1 to December 31 of the given year.

TABLE 3
ANNUAL BUILDING ACTIVITY REPORT SUMMARY
NEW CONSTRUCTION
VERY LOW-, LOW-, AND MIXED-INCOME MULTIFAMILY PROJECTS

Housing Development Information								Housing with Financial Assistance and/or Deed Restrictions		Housing without Financial Assistance or Deed Restrictions
	Tenure	Affordability by Household Incomes								
Unit Category	R=Renter O=Owner	Very Low-Income	Low-Income	Moderate-Income	Above Moderate-Income	Total Units	Est. # Infill Units*	Assistance Programs for Each Development	Deed Restricted Units	
SF	O			235	317		0			
Total of Moderate and Above Moderate				235	317	552				
Total Extremely Low-Income Units				0						

*Building permits issued from January 1, 2021 to December 31, 2021. New permits include 552 single family detached homes.

TABLE 4
REGIONAL HOUSING NEEDS ALLOCATION PROGRESS

Income Level		RHNA Allocation by Income Level	2021 Year 1	2022 Year 2	2023 Year 3	2024 Year 4	2025 Year 5	2026 Year 6	2027 Year 7	2028 Year 8	2029 Year 9	Total Units to Date (All Years)	Total Remaining RHNA by Income Level
Very Low	Deed Restricted Non-Deed Restricted	2,115											2,115
Low	Deed Restricted Non-Deed Restricted	1,274											1,274
Moderate	Deed Restricted Non-Deed Restricted	1,684	235									235	1,449
Above Moderate		3,994	317									317	3,677
Total RHNA by COG		9,067											
Total Units			552										
Remaining Need for RHNA Period													8,515

REMOVAL OF GOVERNMENTAL CONSTRAINTS TO HOUSING

The Housing Needs Assessment of the General Plan states that the development standards for residential development in the City do not constrain the development of new housing or affordable housing. It identifies significant constraints as generally being non-governmental, including high land and construction costs, lack of gap funding for affordable projects, and a variety of other market factors. The Citywide Zoning Code includes land use districts, regulations, and standards that allow for alternative housing products at higher densities and facilitate the provision of live-work units and mixed-use developments.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
II – LAND USE ELEMENT					
LU 1.1.1	Regularly evaluate the mix of land uses as the City grows to analyze build out conditions, market conditions, etc.	PL	Ongoing	GF	On-going amendments to the Zoning Ordinance were completed in 2019.
LU.1.1.2	Utilize the PLACE^{3}S land use model to track General Plan implementation with respect to Land Use and analyze the impact of new development on existing uses and the City roadway network. Update the model on a quarterly basis with newly constructed development projects to maintain accuracy of the model.	PL	Ongoing	GF	Completed, but other resources are also under consideration to determine proper land use and their impacts. **The City launched a new permitting system in August 2021.**
LU.1.1.3	Regularly update the General Plan Land Use Map and other related maps in the General Plan with the latest parcel information from the County's Assessor's Office, regardless of General Plan Amendment activity. Updates to the parcel lines, when no adjustments have been made with respect to land uses.	PL	Ongoing	GF	The parcel and zoning maps have been updated, the maps within the General Plan have been relatively unchanged. Recommend the City review the land use map to look at possible LU changes in 2022.
LU.1.1.4	Amend the Zoning Code text to include the appropriate findings required for General Plan land use and text amendment requests.	PL	2006 / 2007	GF	Completed. ZC 23.155.040
LU 1.2.2	Designate adequate commercial, office, and industrial land uses throughout the City during project review and as part of annual review of the General Plan.	PL	Ongoing	GF	Ongoing. However, not part of the annual GP reporting. Zoning amendments will continue through the 2022 zoning code updates.
LU.1.2.2	Establish a comprehensive plan for an economically viable mix of land uses in and around Mather Airport.	PL / ED	2007	GF	Improvements have been completed to the Mather area and new projects have been approved to improve vitality in the region. A comprehensive plan has not been established that reviews the economic viability of the land uses included in the Mather SPA approved by Sacramento County. The County is working on an updated Mather Airport Land Use Compatibility Plan
LU.1.3.1	Identify target businesses and industries that diversify the City's employment base and create incentives to locate in Rancho Cordova.	ED	Ongoing	GF	Ongoing, part of the annual plan. Jobs and Talent incentive program.
LU.1.3.2	Designate new and existing office developments as mixed-use to encourage the compatible integration of residential and commercial retail and service uses in proximity to jobs.	PL	2006 / 2007	AF	Office uses are included within a mixed use zone with some of these MU zones allowing residential and/or light industrial and retail uses.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
LU.1.4.1	Establish performance and development standards in the Zoning Code and guidelines in the Citywide Design Guidelines to address compatibility between existing and proposed development and within proposed mixed-use development (vertical and horizontal).	PL	2006 / 2007	GF	On-going and completed.
LU.1.4.2	Create development standards and design guidelines to specifically address the compatibility of high-rise development in the Downtown Planning Area. Give special consideration to those issues unique to high-rise development, including the following: visual intrusion, distant viewshed, shadowing of adjacent properties, glare, wind tunnel effects, emergency service, interruption of electronic transmissions, traffic and parking, and noise and vibration. Recognize that urban (higher intensity) developments increase transit opportunities, increase walkability, and efficient land use, which lead to reduced automobile emissions.	PL / FD	2007 / 2008	GF	Not completed. Planning staff will continue to work with the Fire, Public Works, and Building departments to assess existing standards as a proactive solution.
LU.1.4.3	Promote the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.	PL	2006 / 2007	GF	**Ongoing.** The City offers and encourages pre-application meetings with developers and business owners in order to improve communication and potential disclosure.
LU.1.4.4	Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.	PL / PD	2006 / 2007	GF	Completed.
LU.1.4.5	Minimize impacts between urban and agricultural uses through the use of buffers, increased setbacks, roadways, barriers, landscaping, and/or other appropriate methods to avoid conflicts.	PL	2007 / 2008	GF	Completed and implemented as part of entitlement review.
LU.1.4.6	Work with utility providers to coordinate location of transmission lines and substations during development review.	PW / PL	Ongoing	GF	On-going. The City coordinates with the utility providers
LU.1.5.1	Update the Zoning Code Text and Map to reflect new land use designations and distributions throughout the City as established in this General Plan.	PL	2006 / 2007	GF	Completed in 2019 and on-going.
LU.1.5.2	Regularly audit, and update as necessary, any provisions of the Code that may be inconsistent with the General Plan and its subsequent amendments.	PL	Annual	GF	Ongoing.
LU.1.6.1	Ensure master planned communities include the provision of public/quasi-public land preserved for civic uses.	PL	Ongoing	AF / GF	Completed and ongoing as part of entitlement review.
LU.1.6.2	Create a site inventory identifying desired locations for a full service hospital.	CM / ED / PL	2006 / 2007 / 2008	GF	Not completed. **Through a Zoning Code Amendment, Hospital use is allowed within the Convention Overlay District**
LU.1.7.1	When siting new transit-oriented developments: the development must be within one-quarter mile of a major transit stop; emphasize street-level neighborhood commercial services that serve many residents in	PL	Ongoing	GF	Ongoing. The zoning code encourages higher densities and more intense uses within these corridors.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	surrounding areas; encourage employment in the urban transit-oriented development created along the transit route; create a pleasant walking environment through good land use design, short distances, amenities, and streetscape features; and provide direct, multiple linkages, especially for bicycles and pedestrians, to surrounding areas.				
LU.2.1.1	Amend the Zoning Code and Citywide Design Guidelines to include the City's smart growth principles as appropriate.	PL	2006 / 2007	GF	On-going
LU.2.2.1	Identify the building block components of neighborhoods, villages, and districts in the existing areas of the City and encourage redevelopment using the building blocks principles.	PL	Ongoing	GF / AF	Not Completed. Requires coordination with Public Works Street system to identify these areas.
LU.2.4.1	Establish, as a part of design review, a system or mechanism that evaluates the effectiveness of a proposed project in meeting these requirements (listed in LU.2.4).	PL	2006	AF	Achieved but not complete. LU 2.4. involves project designs that ensure safe pedestrian routes both on and off site. Reviewed during project entitlement.
LU.2.5.1	Require market studies, financing plans, phasing plans, and other associated studies as needed as part of all new major development applications in order to evaluate the need for these projects, their compliance with established City policy, and the impact of the development on the City and service providers.	PL / F	Ongoing	AF	Phasing plans and financing plans are required for master plans and specific plans.. Staff reports include a "Fiscal Impact" section that indicates the potential benefit of a project taken before the City Council.
LU.2.6.1	As part of neighborhood project review, ensure that village centers are strategically located for accessibility to surrounding neighborhoods and retail viability. Village town center should ensure that neighborhood-serving commercial uses adjacent to residential areas provide quality, convenience, and community-serving retail choices in a manner that does not adversely impact neighborhood character.	PL / F	Ongoing	AF	Ongoing and completed.
LU.2.7.1	Develop and adopt energy conservation performance standards that apply to new construction and focus on cost-effective measures that exceed minimum federal and state requirements, in recognition and support of the Sacramento Municipal Utility District's "Conservation Power" goals.	PL / B	2007	GF	There are some policies for energy conservation (especially in UBC). There are no specific RCMC codes/regulations. Currently, the City enforces the provisions of the California Energy Code, and the Building Energy Efficiency Standards that are referenced within.
LU.2.7.2	Create programs that educate developers and property owners about the advantages of "green design" on their property and within the City, and inform them on how they can incorporate such design elements into their projects. Develop incentives, such as grants, financing programs, or other mechanisms that help make "green design" realistic.	PL / B / PIO	2007	GF	Building & Safety website page directs developers and property owners to the State Green Code website for the requirements of the Green Building Standards (CALGreen**). The City of Rancho Cordova Website was updated in 2021.**

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
LU.2.8.1	Amend the Zoning Code to include flexible parking standards and parking reductions to encourage compact development, shared parking, and higher density projects in specified locations throughout the City.	PL / PW	2006 / 2007	GF	Completed. ZC 23.719.090 includes reductions. **The Zoning Code parking standards were amended in 2021 to encourage adequate parking supply for future uses but also ensure that the City would not be overparked.**
LU.3.1.1	Identify and map target attractions and establish economic development policies and programs to attract these uses to the City.	ED	2007	RAF	Completed a business incentive program.
LU.3.2.1	Establish specific policies, standards, and guidelines for quality design of all public and quasi-public uses.	PL	2007	GF	Contained with the DG and ZC for Article 5 and 23.722
LU.3.6.1	All applications for annexations shall include a comprehensive land use plan for the affected territory, including pre-zoning and a plan for infrastructure financing and phasing. In considering applications for annexation, the City shall consider whether the annexation will accomplish all of the following: - Constitute fiscally sound additions to the existing City; - Be consistent with state law and Local Agency Formation Commission policies, standards, and criteria; - Preserve neighborhood identities; - Ensure the provision of adequate municipal services; - Be consistent with General Plan and Community Plan land use policies; - Incorporate smart growth principles for sustainable economic growth while maintaining environmental integrity and providing for social equity; and - Promote fiscally sound, efficient service boundaries.	CM / PL	Ongoing	GF	The City did not receive an annexation application in 2021. All proposed annexations will meet LU 3.6.1
LU.4.1.1	Establish and maintain agreements or working relationships with SACOG, Sacramento County, and the cities of Folsom, Sacramento, and Elk Grove to facilitate a coordinated approach to land use decisions that affect each jurisdiction.	CM	Ongoing	GF	Ongoing and completed.
LU.4.1.2	Facilitate agreements (i.e. memorandums of understanding) for critical planning topics and activities with neighboring jurisdictions and SACOG and allow for shared responsibility and an equal voice for all participants	CM	Ongoing	GF	Ongoing and complete.
LU.4.1.3	Partner with other jurisdictions and agencies to create joint powers authorities that address issues of mutual concern (i.e. the American River Parkway) but still allow the City to maintain its voice and decision making authority throughout the process.	CM	Ongoing	GF	Ongoing and complete. (ie. Grantline Road
LU.4.1.4	Encourage neighboring jurisdictions to adopt and collect infrastructure impact fees (e.g. roadway impact fees) for all new development that will have an impact on the City infrastructure (e.g. roads)	CM	Ongoing	GF	Ongoing and complete.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
LU.5.1.1	Encourage the upgrading, beautification, revitalization, infill development, and appropriate reuse of existing commercial areas and shopping centers.	ED / PL	Ongoing	GF	Established the sign and façade program to assist businesses in making façade and other onsite improvements.
LU.5.1.2	Study, create, and implement streetscape enhancement plans that become catalyst projects for the revitalization of existing development.	PW / PL	Ongoing	CIP / Grants	Completed in 2020, Folsom Boulevard improvements have improved the corridor and encourage new development to the area.
LU.5.1.3	Seek improvement to existing infrastructure within residential areas of the City developed prior to incorporation that are not consistent with the City's current standards.	PW	2006 / 2007 / 2008 / 2009	CIP / Grants	Staff has identified the magnitude of this extensive need and is making great progress with complete streets including bike and pedestrian facilities. **The City continues to address improvements. 2021 examples include the following: Pavement rehab projects; streets, sidewalks, notably Zinfandel and White Rock Road; Sunrise Blvd. ADA ramps and storm drainage improvements.**
LU.5.2.1	Conduct the studies and community input process necessary to determine the location and extent of needed redevelopment districts within the City.	ED / PL	2006	GF / RAF	RA for the city no longer exists. New studies are being prepared to address areas that require revitalization and rehab.
LU.5.4.1	Conduct infrastructure surveys and, where necessary, coordinate with utility providers to create infrastructure enhancement plans, which determine shortcomings in infrastructure that could inhibit the development of mixed-use projects in already developed areas of the City.	PW / PL / ED	Ongoing	GF / CIP	Complete and ongoing. Asset Management database for streets. Next phase is storm drainage. **Complete and on-going, Stormwater Capital Improvement Program Masterplan is Complete (Assesses existing storm drainage system and prioritizes the needed improvements). Complete and on-going, Local Road Safety Plan (provides a comprehensive safety assessment of the City's roads.**
LU.5.5.1	Conduct a survey of property within the Downtown to determine where potential land assembly issues may occur and work with property owners to actively solve the problem together, with mutual benefit.	ED / PL	2007	GF / RAF	Progress; however not complete as the surveys have been completed on a case by case basis, but not of all properties to define the DTPA vision. Folsom Blvd area to complete survey.
LU.5.5.2	Survey property designated as a Transit-Oriented Development to determine where potential land assembly issues may occur and work with property owners to solve the problem. Coordinate access and right-of-way issues with the transit provider early in the process.	ED /PL	2007	GF / RAF	Ongoing.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
LU.6.1.1	For lands within the Countryside/Lincoln Village, Sunrise Boulevard North, and Sunrise Boulevard South Planning Areas, require consistency between proposed development projects and the corresponding Planning Area descriptions and Land Plans.	PL	Ongoing	GF / AF	Ongoing.
LU.6.2.1	Require the development and approval of Specific Plans or Special Planning Areas for the Aerojet, East, Glenborough, Grant Line North, Grant Line South, Grant Line West, Jackson, Mather, Rio del Oro, Suncreek/Preserve, and Westborough Planning Areas to create parcel-specific land use plans for those areas. Subsequent land use plans shall be consistent with relevant General Plan provisions and shall reflect the ideas communicated in the Conceptual Land Plans and associated planning area descriptions.	PL	Ongoing	GF / AF	Plans have been adopted with new construction**. Current market demands have increased with the submittal of new plans.**
LU.6.3.1	Consistent with the Downtown Planning Area, create a Downtown Specific Plan that fosters the creation and success of a Downtown Rancho Cordova.	PL	2006 / 2007 / 2008	GF	Incomplete. The GP adopted a Downtown Planning Area (DTPA) Boundary, but a Specific Plan has not been achieved. The DTPA lacks detail and contains multiple overlays (transit, FBSP).
LU.6.4.1	Develop, adopt, and implement a Folsom Boulevard Specific Plan that refines the vision and creates a detailed land plan with action steps for revitalization of the corridor. The Specific Plan shall include a land plan consistent with the vision and development envelope in the General Plan as well as the Planning Area description.	PL	2006	GF	Completed.
LU.6.4.2	Analyze development projects proposed for the Folsom Boulevard Planning Area for consistency with the planning area description for the corridor.	PL	Ongoing	AF	Ongoing and complete.
III – URBAN DESIGN ELEMENT					
UD.1.1.1	Amend the Zoning Code and Design Guidelines to be consistent with the urban vision. Select areas where a “form based” approach to zoning is appropriate.	PL	2006 / 2007	GF	Completed per DG and Article 5 of the ZC.
UD.1.1.2	Prepare and adopt guidelines and standards for residential dwellings in higher density development. Focus on maintaining livability through sensitive design that maintains privacy and minimizes conflicts between adjacent homes.	PL	2006 / 2007	GF	Completed. The adopted design guidelines include standards for high density development
UD.1.2.1	Develop neighborhood street standards that promote walking and cycling to improve quality of life and transportation choices for residents.	PW / PL	2006	GF	Completed and ongoing. Includes PW standards, master plan review, design guidelines, and the zoning code.
UD.1.2.2	Establish residential development design standards and guidelines that enhance the character and quality of projects.	PL	2006	GF	Complete as part of the Citywide Design Guidelines.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
UD.1.3.1	Require the design of all residential projects with a grid or modified grid street system.	PL / PW	Ongoing	AF	Complete. However, not applicable to all projects that may have onsite constraints that prohibit this design.
UD.1.3.2	Allow for flexibility in the implementation of residential densities in a mixed density project.	PL	Ongoing	GF	Complete and ongoing. The GP and zoning includes density range.
UD.1.3.3	Discourage the use of fences/walls/gates between compatible uses.	PL	Ongoing	AF	Complete and ongoing as part of the entitlement review process.
UD.1.5.1	Continue to use, and update as necessary, the Citywide Design Guidelines as a starting point for encouraging developments that are interconnected and relate to one another.	PL	Ongoing	GF / AF	Complete and ongoing.
UD.1.5.2	Revise the Zoning Code provisions to identify appropriate solutions to create compatibility between developments. The use of walls and fences to segregate uses does not inherently create compatibility.	PL	2006 / 2007	GF	Complete as part of our design guidelines and integrated developments (shopping centers).
UD.1.6.1	Create development standards and update the Design Guidelines as necessary to ensure pedestrian-friendly village and local town center designs.	PL	2006 / 2007	GF	Complete and ongoing.
UD.2.2.1	Amend the Zoning Code text and map to implement the new mixed-use designations in this General Plan.	PL	2006 / 2007	GF	Completed and ongoing.
UD.2.3.1	Land uses along the eastern and southern boundaries of the City shall transition down the intensity and density of development from urban to rural at the City edge.	PL	Ongoing	AF	Completed. Uses consist of low density housing and open space preserve.
UD.2.3.2	Establish a gateway program to create a sense of entry at key locations throughout the City and promote wayfinding throughout the community. Use creative designs that respond to the character and history of the City to establish a sense of place, including gateway signage, streetscape design, site landscaping, and other features. Users should feel a sense of arrival and be welcomed to the City.	PL / ED / PW	2007	GF / RAF / CIP	Processing Gateway program; Wayfinding signs. Finished Phase 1. **Phase 2 is complete.**
UD.2.3.3	Prepare and adopt design standards for pedestrian overcrossings of major roads that contribute to district character and defined gateways and promote wayfinding.	PL / PW	2006 / 2007	GF	Standards for at grade, above grade, and under- crossing exist.
UD.2.4.1	As part of the Design Review process, encourage the development of unified district themes with integrated streetscapes (including streetscape furniture), district-wide signage programs, unified architectural styles, and / or themes for a concentration of uses or open space programs.	PL / PW	Ongoing	AF	Part of the Entitlement Process.
UD.2.5.1	Prepare and adopt a Downtown Specific Plan that addresses the future uses, design standards, street design, and other characteristics of the built form.	PL	2006 / 2007 / 2008	GF / RAF	Not Completed. **The GP adopted a Downtown Planning Area (DTPA) Boundary, but a Specific Plan has not been completed.**

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
UD.2.5.2	Work with businesses, property owners, and other stakeholders to create a vital Downtown with pedestrian- and cyclist-oriented activities and design features.	ED / PL	Ongoing	RAF	Not Completed. The ZC includes standards, but nothing specifically for the DTPA.
UD.2.6.1	Develop streetscape standards that define the character of the street and promote pedestrian mobility between individual uses.	PW / PL	2006 / 2007	GF	Complete.
UD.2.6.2	Create standards for the type, spacing, etc. of trees along the street. Require development to include street trees along all frontages of the project.	PW / PL	2006 / 2007	GF	Specific Plan…Complete. Landscaping is located under 23.716 with plant and irrigation standards under 22.180.
UD.2.6.3	Establish standards for the use of street furniture, such as benches, light fixtures, and planters, as inviting and usable accent pieces along the street.	PW / PL	2006 / 2007	GF	Complete per DG and 23.722. Lighting is within 23.725.
UD.2.6.4	Define standards for the use and dimensions of separated sidewalks.	PW	2006 / 2007	GF	Complete.
UD.2.6.5	Create enhanced medians with landscaping and lighting along corridors to promote district identity and unify individual developments.	PW	Ongoing	CIP / Grants	Ongoing
UD.2.6.7	Promote the use of on street parking as an alternative to large parking lots. Establish standards for size, location, and frequency of on-street parking spaces.	PW	Ongoing	AF	Ongoing
UD.2.6.8	Develop and implement streetscape enhancement plans for Folsom Boulevard, Coloma Road, Sunrise Boulevard, Mather Field Road, and other roadways of community importance.	PW	2006 / 2007 / 2008	CIP / Grants	Folsom Boulevard Streetscape Enhancements Phases I to V are completed. **Sunrise Blvd Folsom Blvd to White Rock Road is complete**. **The Mather Field Road Improvement is under design, with construction anticipated to be complete in 2022.**
UD.3.1.1	Develop provisions in the Citywide Design Guidelines that illustrate how projects with architectural styles and / or themes can be designed successfully.	PL	2006	GF	Completed and Ongoing.
UD.3.1.2	Require projects to include features and attributes that positively contribute to the image of the City.	PL	Ongoing	AF	Completed and Ongoing.
UD.3.1.3	Require development projects to use quality materials that are long lasting to ensure a sense of permanence for each project.	PL	Ongoing	GF	Completed and Ongoing.
UD.3.2.1	Prepare and adopt standards and guidelines for the development of interconnected walkways, pedestrian amenities (e.g. seating, lighting, signage, landscaping), plaza areas, outdoor spaces, and commuter amenities (e.g. covered bus stops) oriented toward the pedestrian user.	PL / PW	2006 / 2007	GF	Completed and Ongoing. Design guidelines and zoning code outlines examples.
UD.3.2.2	Amend the City's Street Design Standards to include design elements that establish priority for pedestrians at road and drive aisle crossings through	PW / PL	2006	GF	Complete per the Design Guidelines, zoning code, and public works standards.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	pavement markings, differentiation in the pavement surface, and/or signage.				
UD.3.2.3	Prepare and adopt standards and guidelines for the orientation of commercial and mixed-use buildings, which should be close to the street with parking behind or on the side of the development and easily connected to the pedestrian- and cyclist-oriented public streetscape. Consider incorporating such provisions within a "form based" code in appropriate locations around the City.	PL	2006	GF	Completed and ongoing. Per the pedestrian master plan and pedestrian gathering space standards in zoning code 23.722
UD.3.2.4	Prepare and adopt standards for cyclist-triggered lights that allow cyclists to move about the community efficiently.	PW	2006	GF / CIP	The City continues to receive grants for bicycle detection systems at traffic signals city-wide.
UD.3.3.1	Prepare and adopt guidelines for the design and integration of meaningful public spaces within commercial and mixed-use projects.	PL	2006 / 2007	GF	Included within the specific plan and zoning code, with examples in the Design Guidelines.
UD.3.3.2	Require landscaping to be meaningful in nature, relating to the style and scale of the development and contributing to the look and feel of the City and district. Give consideration to how landscaping will mature over time.	PL	Ongoing	AF	Completed and ongoing as part of the entitlement and building review process.
UD.3.3.3	Require site furniture that is uniform across the development and encourage furniture that is consistent across entire districts.	PL / PW	Ongoing	AF	Not complete. However, design examples exist within the specific plan and design/open space guidelines.
UD.3.3.4	Prepare and adopt standards for project signage that promote the creation of a unique character for the project while respecting the impact of signage on neighboring properties and uses.	PL	2006 / 2007	AF	Not complete. However, standards exist for sign design review.
UD.3.4.1	Develop a Citywide public art program that directs the inclusion of art in private projects and coordinates the use of art in public projects.	ED/PL	2007	GF	**The document is an action-oriented strategic plan describing programs and projects to assist in achieving the vision. Since the plan's adoption, staff and the arts community have worked to implement the Arts Strategic Plan.** • **Provided local art display opportunities** • **Art, events, and cultural experiences in neighborhood greens** • **Creation of murals and decorative signs** • **Created artistic community gateways** • **Promotion and visibility of the arts**

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
					• **City Hall improvements include sconce wall lighting and an improved sound system** • **Completed the pilot Utility Box Art Wrap program with local artists and vendors** • **Supported community art events, festivals, concerts, and activities** • **Expanded events at the MACC** • **Installed art along the Art Block** • **Sponsored pop-up concert venues** • **Funded mobile art classes for youth** • **Provided grants to artists, schools, and nonprofits to expand the arts experiences in Rancho Cordova** • **Provided grants to create or enhance black box theatres, additional rehearsal space, more functional gallery space, and other facility improvements to build upon the art venues in Rancho Cordova**
UD.4.2.1	Develop standards and guidelines that require and illustrate compatibility between new and existing development.	PL	2006	GF	Completed and ongoing. Per the pedestrian master plan and pedestrian gathering space standards in zoning code 23.722
UD.4.3.1	Remove barriers to infill projects by improving existing infrastructure to accommodate new development and increases in service demands.	PL / PW/ B	Ongoing	CIP / Grants	Complete and ongoing.
UD.4.3.2	Provide incentives that allow for higher density and intensity of development, including how to streamline the permitting process.	PL / PW / B	Ongoing	GF	Complete and ongoing.
UD.4.3.3	Require infill projects to comply with the City's smart growth principles and building blocks concept.	PL	Ongoing	AF	Complete and ongoing.
UD.4.3.4	Review how proposed projects interface with existing development and ensure that the interface is positive and meaningful.	PL	Ongoing	AF	Complete and ongoing. Part of the entitlement process.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
UD.4.3.5	Work with property owners of existing development on potential remodel/reuse of their sites so that they may become catalysts projects for development and redevelopment in the City.	ED / PL	Ongoing	GF	Complete and ongoing. Working on Folsom Blvd area. **Purchased 10599 Folsom Blvd parcel.**
UD.4.3.6	Consider the development and adoption of pattern books/building prototypes of desired development and design solutions. These patterns/prototypes would be pre-approved for expedited permit review and building permit issuance.	PL	2006 / 2007	GF	Not complete.
UD.4.4.1	Promote streetscape enhancement projects, as described in UD.2.4.6, as catalysts for change.	PW / ED	Ongoing	CIP / Grants	Complete and ongoing. Folsom Boulevard Streetscape Enhancements Phase I to V were completed in 2020.
UD.4.4.2	Work with property owners to coordinate development activities over multiple sites to help create integrated projects with common design features.	ED / PL	Ongoing	AF	Ongoing.
UD.4.5.1	Encourage the development of major streets, trails, and significantly sized public spaces that preserve and take advantage of vistas.	PW / PL	Ongoing	GF / CIP	Ongoing. The Ranch SPA includes a major east west street, trails and a large preserve area. **The Preserve Project- a 277-acre site proposed for single-family development sets aside 66% of the property as an open space preserve. The community also includes a trail system connecting the neighborhood to the park system which borders Morrison Creek.**
UD.4.5.2	Update the Citywide Design Guidelines to address viewsheds and vistas.	PL	2006	GF	References are included in the DG. .
IV – ED ELEMENT					
ED.1.1.1	Identify key locations for transformation of existing office and retail uses to mixed-use projects that incorporate other supportive uses within large employment areas, at pulse points along Folsom Boulevard and within one-quarter mile of a major transit stop.	ED / PL	2006	GF	Completed and ongoing.
ED.1.1.2	Target underutilized and vacant sites throughout the City that may be more adequately suited for other uses or a combination of uses that would be vibrant and successful	ED / PL	Ongoing	GF	Completed and ongoing.
ED.1.1.3	Continue annexing land within the Planning Area to secure an adequate supply of land for future development, consistent with LAFCo proceedings.	CM / PL	Ongoing	GF	Completed with new land along Folsom Boulevard. Nothing has been annexed since 2012.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
ED.1.2.1	Offer incentives to business owners and property owners for improving the appearance of aging shopping centers and retail space.	ED / PL	Ongoing	GF / RDA / private / CDBG	Completed and ongoing as the sign and façade program was approved in 2017
ED.1.2.2	Work with the owners of Class B and large floor-plate office buildings to update their office space to attract new businesses.	ED	Ongoing	RDA / private	Ongoing and included in 2016 Strategic Plan Update.
ED.1.2.3	Actively promote new Class A office development that serves high-end office users and provides signature building office users.	ED	Ongoing	GF / RDA funds	Ongoing and included in 2016 Strategic Plan Update. **UCD Health C-Suite office located within 2 Office Bldgs, totaling 260,000 sqft.**
ED.1.2.4	Actively promote new office development with smaller individual and cooperative spaces to provide new opportunities for an expanding demand currently unmet in the City.	ED	Ongoing	RDA / CDBG / private	Ongoing and included in 2016 Strategic Plan Update.
ED.1.2.5	Offer incentives for new office development or redevelopment that provides on-site amenities to employees.	ED / PL	Ongoing / PR	RDA / CDBG / private	Completed and ongoing.
ED.1.3.1	Work with local brokers, developers, and the Chamber of Commerce to establish clusters and districts of similar uses for home improvement centers, specialty building materials show rooms, furniture retail, manufacturing and high-tech industries to further diversify the economy.	ED	Ongoing	GF / RDA	Ongoing and included in 2016 Strategic Plan Update.
ED.1.3.2	Develop an attraction and retention program for companies that provide business-to-business (B2B) sales tax revenue to the City (e.g., business services, electronic equipment, light industrial, etc.). These companies are best suited to business parks and areas of the City with heavy industrial and light industrial designations.	ED	2007 / 2008	GF / RDA / Chamber	Ongoing and included in 2016 Strategic Plan Update. Included on economic annual plan
ED.1.6.1	Collaborate with local business, merchant associations, and the Chamber of Commerce to promote and advertise local events.	ED	Ongoing	GF / RDA / Chamber	Ongoing and included in 2016 Strategic Plan Update.
ED.1.6.2	Establish permanent information kiosks and event sign structures in strategic locations throughout the community to promote and advertise local events.	ED / CM	2006 / 2007 / Ongoing	GF / RDA / Grants	Waiting on final locations
ED.1.6.3	Work with the Rancho Cordova Chamber of Commerce to identify potential tourism-oriented market opportunities and to develop stronger links to regional and national tourist markets.	ED / CM	Ongoing	GF / RDA / BIDs	Complete and ongoing.
ED.1.7.1	Create and maintain an economic development web page on the City's Web Site with pertinent economic and demographic information, as well as profiles of key development sites and vacant buildings available for new businesses.	ED / PIO	Ongoing	GF / RDA	Complete and ongoing. **The City of Rancho Cordova Website was updated in 2021.**
ED.1.7.2	Create a Community Data Book with up-to-date information on available sites to attract businesses to Rancho Cordova.	ED / PIO	2006 / 2007 / Ongoing	GF / RDA	Information on ED Website and RCTT website. **The City of Rancho Cordova Website was updated in 2021.**

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
ED.1.7.3	Institute a zoning incentive program that may include flexible development standards, fast track processing, etc. for target uses and infill development.	PL	2006 / 2007	GF	Completed and ongoing for flexibility in code. Planning will work with ED for more incentives.
ED.1.7.4	Establish a Development Review Committee or Technical Advisory Committee to provide expedited review of development applications for targeted projects.	PL / PW / ED	2006	GF / AF	Completed
ED.1.7.5	Continually monitor the redevelopment and economic development strategies to determine their effectiveness in encouraging economic diversity, and adjust policies and incentives when necessary.	ED / PL	Ongoing	GF / RDA	Ongoing and included in 2016 Strategic Plan Update.
ED.1.7.6	Offer incentives as part of the Rancho Cordova ED Strategy and Action Plan (e.g., fee waivers and deferrals, low interest loans, façade improvements, assembling properties, etc.) that can be used to attract businesses.	ED	Ongoing	GF	Included in 2016 Strategic Plan Update, programs developed
ED.1.9.1	Work with the Sacramento Sports Commission and Cordova Recreation and Parks District to identify opportunities for new sports facilities in Rancho Cordova that will be capable of hosting major sports events.	ED / CM	2007 / 2008 / Ongoing	GF	Partner with RCTT and CRPD
ED.1.9.2	Evaluate the economic return and investment by the City for a major sports center or arena.	ED	2007 / 2008 / Ongoing	GF	Will conduct when project arises.
ED.1.9.3	Collaborate with the Sacramento Sports Commission and Cordova Recreation and Parks District to program existing and new parks and recreational facilities to their maximum potential (e.g., Mather Field Park, Sacramento Sports complex on Folsom Boulevard, etc.).	ED / CM	2006 / 2007 / Ongoing	GF	Ongoing
ED.1.9.4	Work with the Chamber of Commerce's Visitor and Tourist Bureau to develop a strategy for attracting sports events to Rancho Cordova.	ED / CM	2007 / 2008 / Ongoing	GF	Responsibility of RCTT
ED.2.1.1	Work with project proponents to locate retail uses within residential projects in appropriate locations and at the appropriate scale to serve local and community retail needs.	PL / ED	Ongoing / PR	AF	Complete and ongoing.
ED.2.1.2	Work with the Chamber of Commerce, Rancho Cordova Regional Economic Development Corporation, the City's Economic Development Committee, local brokers and developers to attract companies that will serve Rancho Cordova's specialty retail, regional and super regional needs (e.g., electronics, home décor, crafts and art, fashion-oriented department stores, children's stores, beauty and spa, auto dealers, shopping and entertainment centers, and specialty building materials, big-box home improvement), and other amenities to serve the community (e.g., restaurants, coffee shops, specialty businesses, ethnically diverse enterprises, and services).	PL / CM	Ongoing	GF / RDA	Complete and ongoing.
ED.2.1.3	Promote and support specialty businesses and ethnically diverse enterprises throughout the City.	ED	Ongoing	GF / RDA	Complete and ongoing. KP international plaza and approved in

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
					2020, **SF Supermarket Plaza is under construction in 2021.**
ED.2.2.1	Amend the Zoning Code to include flexible zoning standards for the redevelopment of office and industrial sites with supportive services (e.g., allowed uses, setbacks, parking).	PL	2006 / 2007	GF	Completed per MU zoning standards. These standards contain setbacks, FAR, and by right allowance for most office uses.
ED.2.3.1	Review development proposals to determine if the proposed uses are consistent with the Rancho Cordova Retail Strategy in terms of type of retail, access, visibility and benefit to Rancho Cordova.	PL / ED	Ongoing	AF	On-going
ED.2.3.2	Work with businesses, Regional Transit and other transit providers to locate appropriate uses near transit.	PL / PW	Ongoing	GF	Ongoing.
ED.2.5.1	Improve and expand the shopping opportunities in Rancho Cordova by taking the following steps: - Conduct a survey of existing shopping centers to identify problem stores and centers. - Work with storeowners to clean up the existing stores and shopping centers. - Attract new retail to Rancho Cordova through marketing and economic development efforts. - Provide assistance to smaller merchants through merchandizing training. - Encourage cooperative marketing of Rancho Cordova shops (e.g., Secret Shopper).	ED	2006 / 2007 / Ongoing	GF / RDA	Sunridge Plaza center nearly complete. Improvements continue to be made to the Rivergate and Zinfandel Village shopping centers**. Stone Creek Village approved in 2021. Anatolia Plaza/Marketplace is under construction**
ED.3.1.1	Locate government offices, compatible public services, and public gathering places in Downtown Rancho Cordova.	PL / CM	Ongoing	GF / RDA / taxes	The new City Hall is within the downtown planning area and improvements, such as **Zinfandel Drive interchange**, have been made to both sides of Hwy 50 within the planning area.
ED.3.1.2	Prepare a Downtown Marketing Plan that targets potential new businesses, including restaurants, upscale retail, high quality commercial, and entertainment venues.	ED / F	2006 / 2007	GF / RDA	Not Completed.
ED.3.1.3	Work with local businesses and property owners to create a Business Improvement District (BID) in Downtown Rancho Cordova.	ED / F	2008 / 2009	GF	Not completed due to lack of property owner interest.
ED.3.1.4	Adopt a Rancho Cordova Downtown Implementation Plan or Downtown Specific Plan that identifies appropriate land uses, incentives, development standards, and design provisions.	ED / PL	2007 / 2008	GF	Not Completed. **The GP adopted a Downtown Planning Area (DTPA) Boundary, but a Specific Plan has not been completed.**
ED.3.1.5	Identify specific factors for measuring Downtown's economic diversity and financial success (e.g., tax increment growth, new square footage, number of new businesses, new infrastructure projects, etc.).	ED	Ongoing	GF	On hold until downtown location is determined

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
ED.3.1.6	Offer incentives that attract targeted uses and high quality buildings and architecture in Downtown Rancho Cordova.	ED / PL / PW	Ongoing	GF / RDA / sewer credit program / CDBG / loans	Included in 2016 Strategic Plan Update
ED.3.1.7	Support the development of specialty food stores and restaurants in the Downtown to serve Rancho Cordova employees and to meet the needs of the region's diverse population, as well as the needs of the growing number of visitors to the area.	ED / PL	Ongoing	GF	Included in 2016 Strategic Plan Update
ED.3.1.8	Encourage the development of new retail services in Downtown Rancho Cordova for which an unmet demand clearly exists.	ED / PL	Ongoing	GF	Included in 2016 Strategic Plan Update
ED.3.1.9	Foster mixed-use development with multi-family residential and commercial uses in Downtown to provide alternative housing opportunities for the community.	ED / PL / H	Ongoing	GF	Working with developers on potential projects
ED.3.1.10	Enhance Rancho Cordova's image and quality of life through investment in the Downtown, neighborhoods, commercial districts, parks, open spaces, community facilities, and services, and creating a high level of perceived safety and a business-friendly government.	ED / PL	Ongoing	GF	Included in 2016 Strategic Plan Update
ED.3.1.11	Create economic development strategies to support the Downtown vision including, but not limited to: - Evaluating infill opportunities for underutilized parking lots. - Encouraging increased lot coverage, density and intensity. - Encouraging structured parking and increased lot coverage.	ED / PL	2007 / 2008	GF	On hold until project location is determined
ED.3.2.1	Work with business and property owners in the Downtown to redevelop and improve their properties, update their architecture and facades, landscaping, parking and pedestrian amenities.	ED	Ongoing	RDA / grant / CDBG	Ongoing for entitlement and building permit review. Façade grants will assist owners in making improvements.
ED.3.2.2	Create incentives for new development and redevelopment in the Downtown with increased density and intensity of development.	ED / PL	Ongoing	GF / RDA	Incentives have been created city wide
ED.3.2.3	Pursue the development of shared parking structures within the Downtown.	ED / PL	Ongoing	GF	Ongoing
ED.3.2.4	Coordinate with the Public Works Department to complete an assessment of infrastructure deficiencies in the Downtown and along Folsom Boulevard and ensure that infrastructure is adequate to support planned intensity and density of land uses.	ED / PW	Ongoing	GF / CIP	Ongoing. There is no DTSPA; however Public Works has completed improvements to Folsom Blvd. Completed Zinfandel Drive and overpass in October 2020.
ED.4.1.1	Determine the appropriate type and scale for a Rancho Cordova Convention Center, based on a sound market analysis and appropriate public and private investment.	ED	2006 / 2007	GF	Ongoing
ED.4.1.2	Work with the high-tech businesses in Rancho Cordova and the region, as well as convention center designers, to make sure the Rancho Cordova	CM / ED	2007 / 2008	GF	Will be completed once a project is imminent

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	Convention Center has state-of-the-art technology and high-tech connectivity to serve the needs of future users.				
ED.4.1.3	Attract new hotel development to Rancho Cordova that will support conferences and entertainment venues.	ED / CM	Ongoing	GF	On-going.
ED.4.1.4	Review development proposals for land within the Convention Overlay for consistency with the City's desires for a convention center with conference and meeting spaces, hotels, and restaurants.	PL	Ongoing	AF	On-going.
ED.4.1.5	Promote a common architectural theme and other unifying elements within the Convention Overlay.	PL	Ongoing	GF	Defined within the Folsom Boulevard Specific Plan design standards for the area.
ED.4.1.6	Attract fine arts, cultural and performance venues to Rancho Cordova.	CAC / ED / PL	Ongoing	GF / Grants	In December 2019, the City Council adopted the City of Rancho Cordova Arts Strategic Plan that was developed based on direction from the City Council and input from stakeholder organizations and individuals, including students. The document is an action-oriented strategic plan describing programs and projects to assist in achieving the vision. Since the plan's adoption, staff and the arts community have worked to implement the Arts Strategic Plan.
ED.4.1.7	Review development proposals for land within the western portion of the Convention Overlay designation to permit transitional uses from the Downtown Planning Area, such as research and development, retail, restaurant and professional office, as well as higher density residential to support primary uses in the Convention Overlay and Downtown areas and in keeping with the vision and subsequent planning efforts for those areas.	PL / ED	Ongoing	AF	Ongoing, work to be completed as proposals submitted
ED.4.1.8	Encourage residential development in appropriate locations in the Convention Overlay area to support convention, hotel, restaurant and other convention-related uses, including housing for all economic levels.	PL / ED	Ongoing	GF / AF	A new hotel opened within the Convention Overlay area. PW has completed numerous improvements to Folsom Boulevard.
ED.5.1.1	Adopt the Rancho Cordova Redevelopment Plan and realize the Agency's Five-Year Implementation Plan.	ED / RA	2006 / 2011	RDA / private / CDBG / Grants / EPA	The RC Redevelopment agency has been dissolved.
ED.5.1.2	Work with developers to attract private investment to redevelopment sites.	ED	Ongoing	GF / RDA	Included in 2016 Strategic Plan Update

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
ED.5.1.3	Supplement private and public funds through use of Community Development Block Grants and other outside funding mechanisms whenever possible to stimulate economic development in the City.	ED	Ongoing	Private / CDBG / Grants / PW / EPA	To be utilized as needed
ED.5.1.4	Survey physical, social, and economic conditions on a regular basis to identify other potential redevelopment areas.	ED	Ongoing	GF / RDA / private / RDA / CDBG / Grants / PW / EPA	Included in 2016 Strategic Plan Update. However, Redevelopment Agency has been dissolved.
ED.5.1.5	Use the Redevelopment Plan to upgrade infrastructure and the streetscape.	ED / RA	Ongoing	GF / RDA / CDBG	The RC Redevelopment Agency has been dissolved.
ED.6.1.1	Review development and redevelopment proposals for consistency with the Folsom Boulevard Specific Plan.	PL	Ongoing / PR	AF	Complete and ongoing.
ED.6.1.2	Work with property owners and business associations to improve commercial areas along Folsom Boulevard, including their viability, appearance, cleanliness, and accessibility.	ED	Ongoing	RDA / GF / RDA / private (BID) / CDBG / Grants / PW	Ongoing. The City Folsom Boulevard streetscape improvements are complete.
ED.6.1.3	Discourage the underutilization of properties along Folsom Boulevard by offering incentives for redevelopment and intensification of uses and densities at key locations along the corridor to create the desired pulse points of activity and intensity.	ED	Ongoing	RDA / Grants / GF / RDA / private (BID) / CDBG	Included in 2016 Strategic Plan Update
ED.6.3.1	Coordinate with the development community and Redevelopment Agency to identify landowners willing to partner, sell, and / or redevelop their property to achieve greater economic and community benefit.	ED / PL / RA	Ongoing	GF	The RC Redevelopment Agency has been dissolved.
ED.6.3.2	Encourage the use of mixed-use zoning categories, land use designations, transit-oriented developments, and districts along Folsom Boulevard consistent with the Folsom Boulevard Specific Plan.	PL / ED	Ongoing / Specific Plan	RDA / AF	Complete – Folsom Blvd. Specific Plan created.
ED.6.3.3	Through land use planning and zoning, establish nodes of commercial activity with new residential, office, and support services.	PL	Ongoing	RDA GF	Outlined within the adopted zoning map.
ED.6.4.1	Use street corridor improvements as catalysts for economic revitalization along Folsom Boulevard.	ED / RA / PW	Ongoing / Specific Plan / RDA Plan	RDA / CDBG / PW / Grants	The City has completed over $25mil of improvements to Folsom Boulevard.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
ED.7.1.1	Maintain an inventory of vacant and underutilized land designated for commercial, industrial, or residential uses and identify opportunities for infill development.	ED / PL	2006 / 2007 and Ongoing	GF / EPA Grants	Completed and ongoing as updates are required to assess development potential.
ED.7.1.2	Target key underutilized or vacant parcels and buildings for rapid development and / or redevelopment, consistent with the other policies in this General Plan.	ED	Ongoing	EPA Grants / GF	Included in 2016 Strategic Plan Update
ED.7.1.3	Develop guidelines for adaptive reuse of commercial, industrial, and office buildings on infill sites, including using these buildings as “live / work” studios.	PL / ED	2007 / 2008	GF	On-going
ED.7.1.4	Adopt an infill policy.	PL / ED	Ongoing	GF	Some progress has been made, but will continue as new opportunities arise.
ED.7.2.1	Establish focused public investment areas, where the City will take a more proactive role in providing basic infrastructure and shaping growth for infill sites.	ED / F / RA	Ongoing	GF / CIP / CDBG / PW / Grants	On-going. Continue working with Public Works as projects arise
ED.7.2.2	Create a fiscal analysis to determine “Return On Investment” (ROI) for each project.	F	2006 / 2007 / Ongoing	GF / AF	Completed on new Specific Plans 2012 forward
ED.7.3.1	Prioritize and expedite the development review process for infill and redevelopment projects by streamlining the project evaluation and permitting to avoid unnecessary delays.	PL / PW / ED	2006 / 2007 and ongoing	GF and AF	Not completed, currently working on a case-by-case basis. **In 2021, the City adopted the Multifamily Housing Streamlined Design Review Permit process to streamline review of multifamily developments that are determined to substantially comply with the multifamily design guidelines.**
ED.7.3.2	Within the Zoning Code establish provisions that provide flexibility for infill site development.	PL	2006 / 2007	GF	Complete as part of the zoning code and Folsom boulevard SPA updates.
ED.7.3.3	Use density bonuses and other incentives to stimulate infill development in target areas.	ED	Ongoing	GF / waivers / credits / loans / Grants / private (BID) / CDBG / PW	Utilized as needed
ED.8.1.1	Provide labor market information to local educational institutions and youth and adult training agencies for planning and curricula purposes on an annual basis.	ED	Ongoing / Annually	GF / education funds / Grants	Ongoing, as needed

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
ED.8.1.2	Work with local educational agencies to promote the value of education, especially among youth with limited family history of higher education, in support of vocational training programs.	ED	Ongoing	GF / education funds / Grants	Ongoing, with Folsom Cordova Community Partnership
ED.8.1.3	Facilitate catalyst projects by bringing together key organizations to expand vocational and technical programs in secondary schools.	ED	Ongoing	GF / education Grants / funds	Ongoing, as needed. Measure H Promise Program.
ED.8.1.4	Promote and expand business activities that support schools, such as school partnerships, City student internships, faculty internships, and job shadowing.	ED	Ongoing	GF / education Grants, funds	Ongoing, as needed
ED.8.1.5	Foster an on-going connection with existing industries to retain businesses by effectively responding to concerns.	ED	Ongoing	GF	Included in 2016 Strategic Plan Update
ED.8.2.1	Work with the Chamber of Commerce, Rancho Cordova Regional ED Corporation and local businesses to support “jobs first” and “first hire” programs to optimize hiring Rancho Cordova residents.	ED / RA	Ongoing	GF	Ongoing
ED.8.2.2	Attract higher educational facilities, post high school training, and medical facilities to Rancho Cordova.	CM / ED	Ongoing	GF / education Grants / funds	On-going. **Folsom Lake College, Rancho Cordova Phase 2 will be under construction.**
V – HOUSING ELEMENT					
December 16th, 2013, City Council adopted the 2013-2021 Housing Element Update of the City's General Plan. The policies and action items contained in that update supersede those of the original General Plan adopted in 2006. The summary of 2013-2021 Housing Element is discussed in the supplemental Housing Element Status Update 2015. The update for the 2021-2029 Housing Element is currently in the process.					
VI – CIRCULATION ELEMENT					
C.1.1.1	Review and update the City’s roadway cross-sections and design standards that implement the roadway types shown in the Circulation Plan.	PW	2006	GF	Complete Streets standards were completed in 2006
C.1.1.2	Require the dedication of right-of-way and the installation of roadway improvements as part of the review and approval of development projects. Require the dedication of major road rights-of-way (generally, for major roads and thoroughfares) at the earliest opportunity in the development process.	PW / PL	Ongoing	AF / GF	Complete and on-going.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
C.1.1.3	Require the dedication of additional right-of-way for intersection improvements where features such as grade separations are planned, unless otherwise approved by the City Engineer.	PW / PL	Ongoing	AF / GF	Complete and on-going.
C.1.1.4	Require all development projects that must perform new roadway construction or road widening to complete the entire roadway to its planned width from curb-to-curb prior to the operation of the project for which the improvements were constructed, unless otherwise approved by the City Engineer. Such roadway construction must also provide facilities adequate to ensure pedestrian safety as determined by the City Engineer.	PW / PL	Ongoing	AF / GF	Roadway phasing will be required in the newly developing area. PW is requiring that any phased street is a complete street.
C.1.1.5	Require development projects to provide funding or to construct roadway / intersection improvements to implement the City's Circulation Plan. At the City's discretion, consider the payment of established traffic impact or similar fees to provide compliance with the requirements of this policy with regard to those facilities included in the fee program, provided that the City finds that the fee adequately funds all required roadway and intersection improvements. If payment of established fees is used to provide compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in or fully funded by the fee program.	PW / PL	Ongoing	AF / GF	The Transportation Development Impact Fee is established and projects are monitored for additional fair share cost requirements.
C.1.1.6	Space major roadways approximately one mile apart and connector roads one-half mile apart to increase route choice and improve vehicular circulation.	PW	Ongoing	AF / GF	The city-wide Arterial Master Plan is completed.
C.1.2.1	Adopt, and update as necessary, guidelines for the preparation of traffic impact analysis for proposed development projects. Items to be addressed may include the following: - Guidelines for determining when traffic analysis is required; - Guidelines for the preparation of traffic analysis; and - Significance criteria for use in CEQA analysis of proposed projects.	PW	2006 / 2007	GF	Traffic Impact Guidelines are in place along with CEQA significance criteria.
C.1.2.2	Adopt, and update as necessary, a list of circulation improvements, including roadway improvements, pedestrian and bicycle facilities, and transit-related improvements, which the City will accept as offsets for congestion in accordance with this policy.	PW	Annual	CIP	The roadway circulation plan is in place and Transit, Bicycle and Pedestrian Master Plans are completed. The City is preparing a Local Road Safety Plan that will provide a comprehensive safety assessment of the City's roads.
C.1.3.1	On a regular basis, monitor existing traffic on roadways within and adjacent to the City.	PW	Ongoing	GF	The City has a traffic count monitoring program. The Traffic Management Center was completed in 2017.
C.1.3.2	Continue to update and refine the Citywide traffic model and use the model to project future traffic conditions based on existing and planned land uses within the City and in the region.	PW	Ongoing	GF	Several city-wide modeling efforts have been completed.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
C.1.3.3	Adopt, and update as necessary, a list of roadways on which the City will not seek to achieve Level of Service D. This list may designate the Level of Service, which will be accepted on each roadway.	PW	2006 / Ongoing	CIP	The current list of roads that will not meet LOS standards includes Sunrise Boulevard and Folsom Boulevard. The list may be expanded with the GP update.
C.1.8.1	Implement, and update as necessary, the Neighborhood Traffic Management Plan and the tools for implementing traffic calming in neighborhoods.	PW	2006	GF	The NTMP is in place and produces ongoing traffic calming projects. Phase 5 project is complete. **Phase 6 is in the Design stage.**
C.1.9.1	Consider the preparation and adoption of a Trip Reduction Program that identifies ways in which automobile traffic and congestion can be reduces as a way to improve mobility within the City.	PW	2006 / 2007	GF	The City partners with the 50 Corridor TMA to provide these services and the City has initiated the CordoVan.
C.1.9.2	Encourage development projects, major employers, and schools to incorporate/participate in trip reduction programs.	PW	Ongoing	GF	Participation with the 50 TMA is a standard condition of approval.
C.1.10.1	Incorporate maximum block length standards into the City's street design and/or improvement standards.	PW	2006	GF	Complete
C.1.10.2	When blocks are designed at lengths greater than 800 feet, design shall include mid-block pedestrian and emergency vehicle connections.	PW	Ongoing	AF / GF	Enforced during the small lot tentative map improvement plan process.
C.1.11.1	Include funding in the City's Capital Improvement Plan (CIP) to construct the pedestrian and bicycle components of the roadway improvement.	PW	2006 /2007	GF / CIP	Bike, Ped and Transit elements are included in the Transportation Fee Program.
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.	PW / PL	Ongoing	AF	Completed and ongoing as part of the entitlement review process. The City completed a Mobility Master Plan in 2019.
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.	PW / PL	2006 / Ongoing	AF / CIP/ GF	Completed when project must adhere to a designated crossing per the Bike and Pedestrian Master Plan.
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.	PW / PL	Ongoing	AF / GF	Completed and ongoing as part of the entitlement review process.
C.2.4.1	Prepare and adopt a Pedestrian Master Plan that sets forth a comprehensive pedestrian system and support facilities, as well as plans education, marketing, and enforcement programs. Identify detailed and ranked improvements in the Master Plan, and update the plan every three to five years. Include minimum sidewalk widths based on development type.	PW / PL	2006 / 2007	GF	Completed March 2011. Update completed in 2019.
C.2.4.2	Coordinate the Pedestrian Master Plan and the circulation-related components of the City Open Space Standards.	PW / PL / CRPD	2006 / 2007	GF	Completed November 2013.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
C.2.5.1	Prepare and adopt a Bikeway Master Plan that sets forth a comprehensive bicycle system and support facilities over the next 20 years, as well as plans education, marketing, and enforcement programs. Identify detailed and ranked circulation improvements in the Master Plan, and update the plan every three to five years.	PW / PL	2006 / 2007	GF	Completed March 2011.
C.2.5.2	Coordinate the Bikeway Master Plan with the circulation-related components of the City Open Space Standards.	PW / PL	2006 / 2007	GF	Completed November 2013
C.2.5.3	Pursue all available sources of funding for the development and improvement of bicycle facilities. Develop projects and secure funding to improve pedestrian and bicycle safety and access around schools and transit stations.	PW	Ongoing	CIP / Grants	On-going. Obtained grants for alternate modes.
C.2.5.4	Establish a Bicycle Advisory Committee to oversee creation and implementation of the Bicycle Master Plan and ensure consistency with existing policy documents, such as the General Plan.	PW	2006	GF	The Bicycling Advocates for Rancho Cordova has been established. Staff attends meetings
C.2.5.5	Coordinate City departments with stakeholders such as the County of Sacramento, Sacramento Area Council of Governments, Bureau of Reclamation, American River Parkway Committee, Cordova Recreation and Park District, Sacramento City / County Bicycle Advisory Committee, air quality agencies, Sacramento Regional Transit District, 50 Corridor Transportation Management Association, employers, residents, and cyclists in order to design, implement, and maintain the proposed bikeway system.	PW	Ongoing	GF	Staff is working with all agencies to build an integrated trail system. **In 2021 SACOG to include the City of Rancho Cordova and other cities worked on the Draft Regional Trails Network Plan.**
C.2.5.6	Provide staff resources focused on review of proposed bicycle and related facilities and their implementation and operation.	PW / PL	2006 / 2007	GF	Completed.
C.2.7.1	Include grade-separated crossings in the City's Capital Improvement Plan, and collect fees to assist in the construction of these facilities.	PW	2006	CIP / GF	Grade Separations for Bikes and Peds are included in the Fee Program.
C.2.7.2	Develop standards for grade separated pedestrian and bicycle crossings that take the pedestrian / bicycle crossing either above or below the road. When the crossing goes under the road, development standards should specify that a change is elevation is required of both the crossing and roadway, thereby splitting the necessary vertical clearance. Doing so will make the crossing safer and more attractive to users by allowing them to see the horizon as they make the crossing.	PW	2006 / 2007	CIP	Developed a standard for bicycle under-crossings and continue to expand standard options. **Zinfandel Drive Bicycle Crossing is under design**.
C.2.7.3	Identify grade separated crossings and enhanced intersection improvements for bikeways and trails as part of the Bicycle Master Plan, Trails Master Plan, Pedestrian Master Plan, and in conjunction with development review.	PW / PL	2006 / 2007	GF	Completed as part of the Bike and Pedestrian Master Plan in 2011 and 2013.
C.2.8.1	Develop programs to encourage bicycle use in communities where significant segments of the population do not drive and where short trips are most common (e.g., through Safe Routes to Schools programs).	PW	Ongoing	GF / Grants	Working with 50 Corridor TMA and advocacy groups to expand City programs.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
C.2.8.2	Maintain roadways and bicycle-related facilities so they provide safe and comfortable conditions for the bike rider, including establishing a routine street sweeping program and maintaining lane striping for bike lanes and routes.	PW	Ongoing	CIP	Street sweeping maintenance programs in place.
C.2.8.3	Minimize road construction impacts by coordinating bike, and pedestrian facilities with roadway construction whenever feasible.	PW	Ongoing	CIP	Included in project delivery requirements.
C.2.8.4	Ensure traffic-calming projects are appropriate for bicycle and pedestrian users (e.g., address bulb-out or roundabout designs that push cyclists into traffic).	PW	Ongoing	GF / Grants	Bike Ped access is a key element in the NTMP
C.2.8.5	Provide signage, alternative routes, etc. during construction activities affecting bikeways to ensure the safety of cyclists.	PW	Ongoing	CIP	Included in Construction Standards
C.2.8.6	Enforce traffic laws to improve the safety and comfort of all road users, with a particular focus on behaviors and attitudes that cause motor vehicle / bicycle crashes.	PD	Ongoing	GF	Ongoing.
C.2.8.7	Use available accident data to monitor bicycle-related accident levels annually and focus on a reduction of fifty percent on a per capita basis over the next 20 years.	PD	Annual	GF	Ongoing.
C.2.8.8	Improve pedestrian crossings in areas of high pedestrian activity where safety is an issue.	PW	Ongoing	CIP	Addressed in the Bicycle and Pedestrian Master Plans.
C.2.8.9	Adopt a target level of bicycle use (e.g. percent of trips) and safety to be achieved within a specific timeframe, and improve data collection necessary to monitor progress.	PW / PD	Ongoing	GF	Mode split goals are established in the Bicycle Master Plan
C.2.8.10	Identify a funding source that will provide at least one crossing guard for each elementary and middle school in the City. Work with school districts to identify joint funding solutions and other partnership opportunities that facilitate pedestrian safety around schools	PD / PW	Ongoing	GF / Grants	Not Completed
C.2.10.1	As part of the Pedestrian Master Plan, Bicycle Master Plan, and/or City Street Standards, develop improvement standards for at-grade pedestrian crossings (e.g., pedestrian bulb outs, markings, special paving, lighting, signage) with performance standards for location and frequency.	PW	2006 / 2007	GF	These standards are included in the NTMP and the BMP and PMP.
C.3.1.1	Create, implement, and update regularly a Transit Master Plan for Rancho Cordova that identifies the type of system desired for the City. Transit routes should coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multi-family housing, and other land uses likely to attract public transit ridership. Bus routes should follow major roads with service to residential neighborhoods from connector streets. Figure C-3 identifies the City's preferred transit system.	PW / PL	2006	GF	The Mobility Master Plan was updated in 2019.
C.3.1.2	Work with transit providers to develop and implement the Transit Master Plan and any additional transit services within the City that are timely,	PW	Ongoing	GF / IF / UF / Grants	Initiated with the Rancho CordoVan and is continuing. Olie program complete.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	cost-effective, and responsive to growth patterns and existing and future transit demand.				
C.3.1.3	Pursue all available sources of funding for transit services.	PW	Ongoing	GF	Obtained a demonstration grant
C.3.1.4	Ensure that transit service is provided in accordance with regional plans and policies, including identified transit improvements developed as part of the Sacramento County Mobility Study.	PW	Ongoing	GF / Grants	Transit planning is integrated with other transit agencies.
C.3.1.5	Review the need for additional transit lines / service in new development and require installation of needed stops through the project review process.	PW	Ongoing	AF / GF	Performed as part of the City's transit implementation efforts.
C.3.2.1	Encourage paratransit service within the City by working with service providers to better identify service gaps and resources, and to improve response times.	PW	Ongoing	GF	The Paratransit service area was expanded and will continue to look for expansion opportunities.
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.	PW / PL	Ongoing	AF	The City currently has 4 light rail stations. New development is required to provide their fair share of transit improvements (i.e. additional ROW, funding) as part of the entitlement review process.
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.	PW	Ongoing	AF	Right-of-way needs are verified in the improvement plan process.
C.3.4.1	Encourage and accept employee shuttles as a viable mitigation measure for trip reduction when proposed development cannot otherwise mitigate potential impacts to City streets.	PW / PL	Ongoing	AF / GF / IF	Efforts are being addressed by the 50 TMA.
C.4.1.1	Work with the Sacramento County Airport System and the Airport Land Use Commission to improve operations at Mather Airport, consistent with the City's vision.	ED / PL	Ongoing	GF	The Airport Land Use Plan is in the draft stage.
C.5.3.1	Periodically undertake a detailed analysis of the improvements needed as growth occurs and the costs associated with those improvements. Update fees as necessary to ensure full funding of all required improvements.	PW	Ongoing	GF	The Transportation Impact Fee program was reviewed in 2019.
C.5.3.2	Establish a road maintenance assessment district to provide a funding source to maintain road improvements and new roads as a result of new development.	PW	2006	GF	Maintenance Districts have been established.
C.6.1.1	Develop and implement a comprehensive system to monitor and evaluate the conditions and maintenance needs of the existing transportation network. Inventory and categorize the City-maintained roads by road type and condition using a pavement management system.	PW	Ongoing	GF / CIP	The City has established a Pavement Management System using a pavement condition index. **Updated in 2021.**
C.6.1.2	Work with SACOG to ensure that the Metropolitan Transportation Plan is coordinated with the City's Capital Improvement Plan to facilitate access to federal and state funds for circulation maintenance and improvements.	PW	Ongoing	GF	City staff has an in-depth coordination process for SACOG MTP updates.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
VII – OPEN SPACE, PARKS, AND TRAILS ELEMENT					
OSPT. 1.1.1	Require developers of all new residential development to dedicate parkland at a rate of five acres of land per 1,000 population. When necessary, provide an in-lieu payment option, which allows the developer to fund the acquisition of acceptable land equal to the dedication requirement. Calculate required parkland dedication exclusive of required open space.	PL / CRPD	Ongoing	AF	Completed and ongoing as the City now has open space requirements.
OSPT. 1.1.2	Consult with the Cordova Recreation and Park District prior to determining the acceptability of lands proposed for dedication as public parkland.	PL	Ongoing	GF /AF	Completed and ongoing.
OSPT. 1.1.3	Establish a procedure for determining an appropriate in lieu fee amount that ensures CRPD will have adequate funds to purchase required parkland for which in lieu fees are paid.	PL / F / CRPD	2006	GF	Completed. Outlined within Development Agreements and required in lieu fees prior to Final Map Approval
OSPT. 1.4.1	Ensure that sufficient funding for maintenance of parks is assured prior to approval of any Final Subdivision Map that includes public parks and / or related facilities.	PL / F / CRPD	Ongoing	GF	Completed and ongoing. This is enforced through the existing and proposed Development Agreements.
OSPT. 1.4.2	Consider creating a fee and assessment program to provide increased funding for existing parks, in collaboration with the Cordova Recreation and Park District. This could include local or regional bond measures or assessment districts, public or private grants or partnerships, homeowners associations, or other methods deemed appropriate by the City.	PL / F / CRPD	Ongoing	GF	Ongoing.
OSPT. 1.5.1	Continue to work with the Cordova Recreation and Park District on this issue, and implement funding mechanisms as part of the City's review and approval of new development projects.	PL / CRPD	Ongoing	GF	Ongoing.
OSPT. 1.5.2	Explore the possibility of the Cordova Recreation and Park District constructing a community pool that is usable year-round.	PL / CRPD	2007	GP / PF	**The Cordova Community pool was completed and opened in June 2021.**
OSPT. 1.5.3	Expand the Cordova Senior Center at the Lincoln Village Community Park, and the construction of new senior community facilities as demand for such facilities increases.	PL / CRPD	2007 / 2008	GP / PF	Improvements have been made.
OSPT. 1.6.1	Continue to work with the Cordova Recreation and Park District in the planning and execution of park and recreation facilities to accommodate a variety of regional sports venues.	PL	Ongoing	GF	Complete and ongoing.
OSPT. 1.6.2	Work cooperatively with the Sacramento Sports Commission and Chamber of Commerce Visitor and Tourist Bureau to attract and host regional sporting activities.	PL / CRPD	Ongoing	GF	Complete and ongoing.
OSPT. 2.1.1	Adopt City Open Space Standards as an action program to implement the open space policy framework in this Element. The standards will clearly define the City's requirements for the improvement, expansion, and maintenance of open space. Such standards shall include provisions for	PL	2006	GF	Complete.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	two types of open space: 1) Mandatory Open Space, and 2) Performance Based Open Space.				
OSPT. 2.1.2	-Require developers of all new residential development to dedicate parkland at a rate of 1.75 acres of land per 1,000 population, generally comprised of: - Open Turf, Tree Canopy and Dog Parks; - Neighborhood Greens; and - Communitywide Open Space.	PL	Ongoing	AF	Complete; CRPD regulates the Quimby parkland requirement while the City regulates the open space requirement per the open space standards.
OSPT. 2.1.3	Consider partial credit for mandatory open space within drainage facilities when certain criteria are met.	PL	Ongoing	AF	Ongoing.
OSPT. 2.1.4	Exempt from the minimum open space requirements residential subdivisions of ten acres or less which are not part of a master-planned development meeting the minimum open space requirement, at the City's discretion.	PL	Ongoing	GF	Under consideration for smaller projects.
OSPT. 2.1.5	Require all new development projects to provide a system of connected open space that includes greenway, trails, nodes, and green infrastructure (see City Open Space Standards), in proximity to all new residents.	PL	Ongoing	AF	Complete and ongoing per entitlement review.
OSPT. 2.1.6	Ensure that funding for maintenance of open space is sufficient prior to approval of any Final Subdivision Map of development that includes open space facilities or amenities.	PL / F	Ongoing	AF	Ongoing.
OSPT. 2.1.7	Consider including encumbered land (such as a power line easement) that meets all other requirements for open space for inclusion in the open space system on a case-by-case basis.	PL	Ongoing	AF	**In 2021, The Ranch project is under construction that includes power line easements, trails, and open space. The trail system will link with existing trails.** **The Preserve Project- a 277-acre site proposed for single-family development sets aside 66% of the property as an open space preserve. The community also includes a trail system connecting the neighborhood to the park system which borders Morrison Creek.**
OSPT. 2.2.1	Adopt a comprehensive Open Space Preservation Plan as the action program that clearly implements the City's open space policy framework and provides clear direction for the maintenance of open space lands.	PL / CRPD	2006 / 2007	GF	Completed. Open Space Design Guidelines.
OSPT. 2.3.1	Encourage projects to accomplish the following: - Align roads and public spaces to take advantage of vistas over mitigation lands;	PL / PW / CRPD	Ongoing	AF	Complete and ongoing. The Ranch project incorporates preserve area with trails along the preserve. **The Preserve Project- a 277-acre site proposed for single-family**

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	- Site publicly accessible trails adjacent to the boundaries of mitigation lands to take advantage of the open character and uninterrupted edge of the mitigation lands; and - Consider locating public parks adjacent to mitigation lands to create a greater sense of open space and to take advantage of opportunities for vistas and trail connections.				**development sets aside 66% of the property as an open space preserve. The community also includes a trail system connecting the neighborhood to the park system which borders Morrison Creek.**
OSPT. 2.3.2	Through the development review process, incorporate design features that increase visual access to natural resource mitigation lands.	PL	Ongoing	AF	Complete and ongoing.
OSPT. 3.1.1	Create and adopt a comprehensive Trails Master Plan that includes information on current resources and plans for future development, including designating locations and types of trails.	PL / PW	2006 / 2007	GF	Completed in 2016. Bicycle Trails Master Plan**. 2021: Zinfandel overpass crossing is in Design.**
OSPT. 3.1.2	Review all new development projects and public works projects and require compliance with the Trails Master Plan prior to approval.	PL / PW	Ongoing	GF	Completed during entitlement review.
OSPT. 3.1.3	Provide appropriate pedestrian and bicycle linkages to existing facilities, particularly to those facilities within the American River Parkway and the Folsom South Canal.	PL / PW	Ongoing	GF / AF	On-going.
OSPT. 31.4	Develop and implement a capital improvement plan to construct new bridges, grade-separated crossings, and ramps at key intersections of major trails and roadways.	PW	Ongoing	GF	Grade separated crossings are included in the BMP and in the Fee Program.
OSPT. 3.2.1	Work cooperatively with Sacramento County to fund enhancements within the American River Parkway, consistent with the American River Parkway Plan.	PL / PW / CRPD	Ongoing	GF / Grants	On-going**. 2021: Trail Enhancement is in Design**
OSPT. 3.3.1	Include funding for grade-separated and enhanced at-grade pedestrian crossings through the development review and entitlement process and pursue grants and other funding for trails.	PL / PW	Ongoing	AF	Infrastructure needs are included in development efforts.
OSPT. 4.1.1	Provide staff support and / or funding to facilitate updates to the American River Parkway Plan.	PL / PW / CRPD	Ongoing	GF	Ongoing.
OSPT. 4.1.2	Identify and support programs, which serve the special recreational and open space needs of seniors, youth, and other special needs groups that may be underserved within the community.	PL / CRPD	Ongoing	GF / Grants	Ongoing.
OSPT 4.1.3	Identify and support programs which serve the special recreational and open space needs of seniors, youth, and other special needs groups that may be underserved within the community.	PL / CRPD	Ongoing	GF / Grants	Ongoing; Multiple departments have been included to facilitate this outreach.
OSPT 4.1.4	Determine the need for special facilities for seniors (e.g., more benches and flat paved walking areas near the river).	PL / CRPD	Ongoing	GF / Grants	Ongoing and part of the building permit and improvement plan review.
OSPT 4.1.5	Determine the need for special facilities for youths consistent with natural resource protection.	PL / CRPD	Ongoing	GF / Grants	Ongoing.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
OSPT. 4.2.1	Encourage the use of volunteers and community groups to provide maintenance and safety patrols on trails through the provision of funding and staff assistance to leverage volunteer efforts.	PL / PW / CRPD / PD	Ongoing	GF / Grants	Ongoing. City engages in events such as Creek Week and Community Clean Up events to help maintain Open Space areas.
OSPT. 4.2.2	Promote the City's world-class system of parks, trails, and open space to all users through education, marketing, and community activities.	PL / PW / CRPD / PIO	Ongoing	GF / Grants	Working to improve prominence of the American River Parkway. **The City of Rancho Cordova Website was updated in 2021.**
OSPT. 4.2.3	Support trails events and trail use through publicity, proclamations, participation, and funding, community events (e.g., Fourth of July Celebration, Kid's Day, Soil Born Farms, Anatolia-Kavala Rancho Trail) that cross community and neighborhood boundaries, and help bring together various segments of the population.	PL / PW / CRPD / PIO	Ongoing	GF / Grants	These events are promoted and supported in our city bicycle program. **The City of Rancho Cordova Website was updated in 2021.**
VIII – INFRASTRUCTURE AND FINANCE ELEMENT					
ISF.1.1 .1	Utilize the City's Fiscal Impact of New Development (FIND) Model within the review of proposed development projects to ensure revenues associated with the project will fully fund City expenses associated with the project.	PL / F	Ongoing	AF	Not Completed.
ISF.1.1 .2	Annually review the Fiscal Impact of New Development (FIND) Model and update as needed to reflect actual costs of City Services.	PL / F	Annual	GF	Not Completed.
ISF.1.1 .3	Periodically evaluate the City's office and retail demand based on changing demographics and market conditions to ensure an adequate supply of land for non-residential use.	PL / ED / RA	Ongoing	GF / RDA	Included in 2016 Strategic Plan Update and Economic Development Strategic Plan
ISF.2.1 .1	Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.	PL / PW	Ongoing	AF	Ongoing.
ISF.2.1 .2	Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.	PW	2007	GF / AF	Ongoing
ISF.2.1 .3	Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.	PW / ED / RA	Ongoing	AF	Ongoing
ISF.2.1 .4	Work with utility providers to coordinate the installation or upgrading or relocation of utilities to minimize multiple trenching of city streets.	PW	Ongoing	AF	Ongoing.
ISF.2.2 .1	Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.	PL / PW / B	2006 / Ongoing	GF / AF	Ongoing as the Development Service Team (DST) fills this role in pre-application and application review.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
					Meetings take place weekly on Thursdays at 10am.
ISF.2.3.1	Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity. - Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges. - Right of way acquisition, design, engineering, environmental compliance, and construction costs. - Drainage and other facilities related to new roadway construction. - Installation of landscaped medians, sidewalks, and streetscaping where appropriate.	PW / F	Ongoing	GF / AF / IF	Ongoing for new development projects.
ISF.2.3.2	Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.	PL / PW / B / F	Ongoing	AF	Ongoing.
ISF.2.3.3	Include sufficient funding in fee programs and / or other finance mechanisms to cover the costs of each of the following roadway items:	PW / F	Ongoing	GF / AF	Ongoing
ISF.2.4.1	The following shall be required for all legislative-level development projects, including community plans, general plan amendments, specific plans, rezonings, and other plan-level discretionary entitlements, but excluding tentative subdivisions maps, parcel maps, use permits, and other project-specific discretionary land-use entitlements or approvals: - Proposed water supplies and delivery systems shall be identified at the time of development project approval to the satisfaction of the City. The water agency or company proposing to provide service (collectively referred to as “water provider”) to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project. The project applicant or water provider shall make a factual showing prior to project approval that the water provider or providers proposing to serve the development project has or have legal entitlements to the identified water supplies or that such entitlements are reasonably foreseeable by the time of subsequent, project-specific discretionary land-use entitlements or approvals. This factual showing shall also demonstrate that the water provider’s identified water supply is reasonably reliable over the long term (at least 20 years) under normal, single-dry and multiple-dry years. - All required water treatment and delivery infrastructure for the project shall be in place at the time of subsequent, project-specific	PW / PL	Ongoing	AF	Ongoing per the entitlement review process through Conditions of Approval, Water Agency Review, and Improvement Plan Review.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	discretionary land-use entitlements or approvals. Or shall be assured prior to occupancy through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects. · Action service area, and other projects, which have received commitments for, water service. - Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act. - Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.				
ISF.2.4.2	The following shall be required for project-specific discretionary land-use entitlements and approvals, including but not limited to, all tentative subdivision maps, parcel maps, or use permits: - An assured water supply and delivery system shall be available or reasonably foreseeable at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project. - The project applicant, water agency (or agencies), or water company (or companies) providing water service to the project site shall make a factual showing consistent with, or the City shall impose conditions similar to, those required by Government Code section 66473.7 in order to ensure an adequate water supply for development authorized by the project. Prior to recordation of any final subdivision map, or prior to City approval of any similar project-specific discretionary land use approval or entitlement required for nonresidential uses, the project applicant or water provider shall demonstrate the availability of a long-term, reliable water supply for the amount of development that would be authorized by the final subdivision map or project-specific discretionary non-residential approval or entitlement. This assurance of water supply shall identify that the water provider has legal entitlement to the water source and that the water source is reasonably reliable (at least 20 years) under normal, dry and multiple dry years. Such demonstration shall consist of a written certification from the water provider that either existing sources are available or that needed improvements will be in place prior to occupancy. - Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the issuance of building permits or their financing shall be assured to the satisfaction of	PW / PL	Ongoing	AF	Complete and ongoing per the entitlement review process, Conditions of Approval, Water Agency Review and Improvement Plans,

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	the City prior to the approval of the Final Map, consistent with the requirements of the Subdivision Map Act, or prior to the issuance of a similar, project-level entitlement for non-residential land uses. - Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.				
ISF.2.6 .1	Require all subdivision developments to adhere to the following provisions, to the extent permitted by state law: - Sewage / wastewater treatment capacity shall be available at the time of tentative map approval. - The agency providing sewer service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other proposed or approved projects which have received sewage treatment capacity commitment. - Onsite and offsite sewage conveyance systems required to serve the subdivision shall be in place prior to the approval of the Final Map, or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act. - Sewage conveyance systems within the subdivision shall be in place and connected to the sewage disposal system prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.	PW / PL	Ongoing	AF	Complete and ongoing per the entitlement review process, Conditions of Approval, Improvement Plans, and Sacramento Area Sewer District Review.
ISF.2.6 .2	Generally, the City shall not allow construction of independent community sewer systems to serve new development.	PL / PW	Ongoing	AF	Ongoing per the entitlement review process.
ISF.2.6 .3	Require all commercial or industrial development, as well as all residential development with lots smaller than two acres, to connect to a public sewer system.	PL / PW	Ongoing	AF	Ongoing per the entitlement review process.
ISF.2.7 .1	Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.	PL / PW	Ongoing	AF	Ongoing per the entitlement review process.
ISF 2.7.2	Require complete visual screening of all utility sites, facilities, and equipment, with special emphasis on screening in proximity to residential property or in view shed.	PL	Ongoing	AF	Ongoing as a zoning code requirement section 23.731.080.
ISF.2.8 .1	Develop an Information Technology Strategic Plan with input from community stakeholders and experts.	F	2006 / 2007	GF	Completed and Ongoing.
ISF.2.8 .2	Explore ways to improve the City's website to provide service in new ways.	CM	2006 and ongoing	GF	Ongoing development

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ISF.3.1 .1	City Staff shall actively work with other agencies and jurisdictions in the development / expansion and funding of a wide range of public services including, but not limited to neighborhood services, social and cultural services, special needs services, housing services, educational and community services, and recreational services.	PL / ED / H / CRPD	Ongoing	GF / Grants	Ongoing – as needed
ISF.3.1 .2	Regularly survey or otherwise identify the service needs and priorities of Rancho Cordova residents.	CM / H	Ongoing	GF	Ongoing.
ISF.3.1 .3	Pursue grants and other funding opportunities to create new services or expand existing services targeted to meet the needs of Rancho Cordova residents and employees.	CM / PL / PW / B / ED / H	Ongoing	GF	Ongoing.
ISF.3.1 .4	Encourage the co-location of public service providers into commercial, office, and mixed-use sites that are accessible to persons in need of services.	PL / ED / RA	Ongoing	GF	Ongoing – as needed
ISF.3.2 .1	Provide financial support to the existing library system to improve services for local residents and employees (e.g., extended hours).	CM / F	Ongoing	GF / Grants	Not Completed. CF fees are currently collected for new facilities.
ISF.3.2 .2	Encourage the County to locate new libraries within Rancho Cordova accessible to pedestrians, bicycles, and public transit riders, in a highly visible location that is accessible to unaccompanied children.	CM / PL / PW / ED	Ongoing	GF / Grants	Ongoing
ISF.3.2 .3	Consider the establishment of a fee for public library financing based on projected employment for new non-residential development.	CM / F	2006 / 2007	GF	Not Completed.
ISF.3.2 .1	Market the City's strengths and desires for development of a full-service hospital to national hospitals and medical service providers.	CM / ED / PL	2006 / Ongoing	GF	Ongoing.
ISF.3.2 .2	Consider the creation of economic development or redevelopment incentives to encourage the development of a full service hospital in Rancho Cordova (e.g., assembly and / or dedication of land, reduction of fees).	ED	2006 / 2007	GF	Ongoing discussion
ISF.3.4 .1	Create an organization of community volunteers at City hall by contacting local volunteer groups, coordinating activities, and facilitating the sharing of information and resources.	NS / H / PIO	2006 / Ongoing	GF	Complete and ongoing. **The City of Rancho Cordova Website was updated in 2021.**
ISF.3.4 .2	Create local neighborhood advisory committees and empower leaders to enhance their community.	NS / H / PL	2006 / Ongoing	GF	Complete and ongoing for events in 2021 (e.g. ITLV). Although revised to meet CDC guidelines
ISF.3.4 .3	Create a neighborhood services education program to increase awareness about City standards and property maintenance.	NS	2007 / Ongoing	GF	Complete and Ongoing (e.g. Blight Busters, Mayor's Walk). However, the year 2021 did not allow several in person events.
ISF.4.1 .1	Convene a focused design effort with the School Districts to establish design guidelines for schools. Key issues include: - Proper sizing of school campuses and consideration of urban school design.	PL / School Districts / CRPD	2006 / 2007	GF	Ongoing.

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	- Design solutions that enhance; rather than impact neighborhoods. - Address shared use of school facilities, including continued park/school combined facilities and community use of school campus libraries.				
ISF.4.1.2	Support the Folsom Cordova and Elk Grove Unified School Districts in siting new school facilities according to the following criteria: - Schools should be within walking distance of most residences, and should connect with trails, bikeways, and pedestrian paths. - Schools should serve as a focal point of neighborhood activity and be interconnected with churches, parks, greenways, and off-street paths whenever possible. - New schools should be placed adjacent to neighborhood and community parks whenever possible and be designed to promote joint use of appropriate facilities.	PL / School Districts	Ongoing	AF / GF	Ongoing as part of the entitlement review process.
ISF.4.1.3	Conduct focused discussion with local school districts to discuss design of pedestrian and bicycle facilities adjacent to and within the school sites	CM	2006 / 2007 / Ongoing	GF	Completed and ongoing.
ISF.4.2.1	Continue to pursue a single unified school district for the City's K-12 children.	CM	2006 / 2007 / Ongoing	GF	Not complete.
ISF.4.3.1	Create economic development and / or redevelopment incentives for the location and development of educational institutions in proximity to light rail and / or visible from Highway 50.	PL / ED / RA	2006 / 2007	GF	New educational facilities have been located in proximity to light and highway 50 (e.g. Folsom Lake College). **Phase 2 will begin**.
ISF.4.3.2	Require Community Plans, Specific Plans, and Special Planning Areas to consider the needs of community colleges and address the feasibility and appropriateness of off-campus facilities, particularly in town centers and transit-oriented developments.	PL / ED / RA	Ongoing	AF	All aspects of a project are taken into consideration during entitlement review.
IX – NATURAL RESOURCES ELEMENT					
NR.1.1.1	Incorporate large habitat preserves and interconnected wildlife corridors in new development areas to provide ample space for animal movement.	PL	Ongoing	AF / GF	Ongoing as part of the entitlement review process and CEQA Analysis. The Ranch project includes a large habitat preserve area.
NR.1.1.2	Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and / or wooded corridors.	PL	Ongoing	AF	Ongoing.
NR.1.1.3	As part of the consideration of development applications for individual Planning Areas containing habitats that support special-status plant and animal species that are planned to be preserved, the City shall require that these preserved habitats have interconnections with other habitat areas in	PL	Ongoing	AF	Ongoing. The Habitat Conservation Plan was approved in 2019. The City coordinates with the South Sacramento Habitat Conservation Plan Technical

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	order to maintain the viability of the preserved habitat to support the special-status species identified. The determination of the design and size of the "interconnections" shall be made by the City, as recommended by a qualified professional, and will include consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service.				Advisory Committee on projects within the SSHCP area.
NR.1.1.4	Prior to the approval of any public or private development project in areas containing trees, the City shall require that a determinate survey be conducted during the nesting season (March 1 and August 31) to identify if active nesting by birds protected under the Migratory Bird Treaty Act (MBTA) is taking place. If all site disturbance is to occur outside this time, the actions described in this mitigation measure are not required. If nesting activity is observed, consultation with the City of Rancho Cordova Planning Department shall be conducted in order to determine the appropriate mitigation, if any, required to minimize impacts to nesting birds. No activity may occur within 100 feet of any nesting activity or as otherwise required following consultation with the California Department of Fish and Game.	PL	Ongoing	AF	Ongoing.
NR.1.2.1	Establish a Swainson's Hawk Ordinance in coordination with the California Department of Fish and Wildlife to establish the process of mitigating for the loss of Swainson's hawk foraging habitat based on habitat value lost to development. The ordinance will set forth a process where habitat lost to development will be mitigated through the permanent protection of equivalent or better existing habitat conditions (referred to hereafter as "mitigation lands"). The specific required mitigation ratios (habitat acreage lost versus mitigation lands) and any other provisions to mitigation process shall be established through technical studies as part of the development of the ordinance and will take into account value of habitat to be converted in relation to habitat value of the mitigation lands (e.g., relation to nesting sites), proximity of the mitigation lands to adjacent conditions affecting habitat (e.g., nearby land uses and already permanently protected lands), and other relevant factors. The ordinance will also establish standards ensuring that mitigation land will be adequately protected and managed in perpetuity (e.g., via conservation easement, deed restriction or other appropriate method), and setting forth the timing of the required provision of mitigation lands in relation with the timing of the loss of habitat in the City (as its boundaries may be changed through subsequent annexations), such that mitigation lands shall be provided no later than prior to ground disturbance.	PL	2006 / 2007	GF	Completed.
NR.1.3.1	Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.	PIO / PL	Ongoing	GF	Completed and ongoing. This included information on stormwater and impacts to sensitive habitats/species (e.g. Creek Week) **The City of Rancho Cordova Website was updated in 2021.**

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NR.1.4.1	Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.	PIO	2006 / 2007	GF	Not Complete.
NR.1.4.2	The City shall adopt and maintain a Noxious Weed Ordinance. The Noxious Weed Ordinance shall include regulatory standards for construction activities that occur adjacent to natural areas to inhibit the establishment of noxious weeds through accidental seed import.	NS	2006 / 2007	GF	Complete per 17.12.
NR.1.7.1	For those areas in which special status species are found or likely to occur or where the presence of species can be reasonably inferred, the City shall require mitigation of impacts to those species that ensure that the project does not contribute to the decline of the affected species populations in the region to the extent that their decline would impact the viability of the regional population. Mitigation shall be designed by the City in coordination with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG), and shall emphasize a multi-species approach to the maximum extent feasible. This may include development or participation in a habitat conservation plan.	PL	Ongoing	AF	Ongoing.
NR.2.1.1	During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.	PL	Ongoing	AF	Ongoing.
NR.2.4.1	Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves where possible while maintaining the integrity of sensitive natural resources.	PL / PIO	Ongoing	GF / AF	Ongoing with new development. **The City of Rancho Cordova Website was updated in 2021.**
NR.2.4.2	Consider constructing elevated board walkways and other low impact trails interior to preserves, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.	PL	Ongoing	GF / AF	Ongoing (e.g. Anatolia-Kavala Ranch Trail)
NR.3.2.1	Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.	PW / PL	2006 / 2007	GF	The Open Space Guidelines provide guidance for development along the perimeter of the open space. In addition, review for water quality requirements is part of the entitlement review process..
NR.3.2.2	Adopt and implement improvement standards for soft bottom channels.	PW / PL	2006 / 2007	GF	Completed
NR.3.3.1	Work with affected local, state and federal agencies, including SACOG, the California Department of Water Resources, Delta Keepers and the U.S. Army Corps of Engineers, to determine when natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.	PL / PW	2006 / 2007 / Ongoing	GF / CF	Part of the Environmental permitting and Entitlement process.
NR.3.4.1	Establish performance standards for natural resource preserves that accomplish the following:	PL	2006 / 2007 / Ongoing	GF / CF	The Open Space Guidelines provide guidance for development along the perimeter of the open space. In addition, review for water quality

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	- Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control. - Offer sufficient width in and / or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor. - Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts. - Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.				requirement is part of the entitlement review process.
NR.3.4.2	Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.	PL	2006 / 2007	GF / CF	Ongoing. The Ranch project includes trails adjacent to the preserve area. **The Preserve Project- a 277-acre site proposed for single-family development sets aside 66% of the property as an open space preserve.**
NR.3.4.3	Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.	PL	2006 / 2007	GF	Specific guidelines have not been created; however this is part of the entitlement review process (e.g. Open Space Design Guidelines and screening requirements) and part of the SSHCP permits for projects within the SSHCP area.
NR.4.1.1	Implement the City's Tree Preservation and Protection Ordinance (and update as necessary) to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.	PW/PL	Ongoing	GF	A revised Tree Preservation Ordinance was adopted in 2017. The revised ordinance increased the number of protected trees and includes restrictions on trimming trees.
NR.4.1.2	Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.	PW / PL	Ongoing	CF	Ongoing.
NR.4.1.3	Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.	PL	20067/ 2008 / Ongoing	GF	Ongoing. A City arborist is on staff.
NR.4.2.1	Create development guidelines to establish minimum planting standards and require appropriate tree species and planting densities within newly landscaped areas that are visible to or shared by the public. An adopted	PL	2007 / 2008	GF	Ongoing. Working on standards. Tree List has been updated and adopted.

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	Tree List should be used as a guideline for all tree plantings within the City.				
NR.4.2.2	Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.	PL	2007 / 2008	GF	Ongoing. A City arborist has been hired. Working on standards
NR.4.2.3	Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.	PIO / PL	2006 / 2007	GF	Not completed.
NR.4.2.4	Discourage the use of invasive non-native species.	PL	Ongoing	GF	Ongoing as part of the entitlement review process (e.g. required landscape plans for new developments).
NR.4.2.5	Establish a mistletoe abatement and remediation program.	NS	2006 / 2007	GF	Not Completed.
NR.4.2.6	Establish guidelines to require planting of trees to reduce “heat island” effects, in order to reduce the need for air conditioning and thus conserve energy.	PL	2007 / 2008	GF	**Ongoing. Working on standards. Tree List has been updated and adopted.**
NR.4.3.1	Achieve “Tree City USA” status. This will require the City to continue to implement the City’s Tree Preservation and Protection Ordinance (and update as necessary), appoint a board, department or commission to advise the city on tree issues, spend two dollars per capita on community forestry activities, and hold an Arbor Day celebration.	PL/ PW	2007 / 2008	GF	Completed in 2016-2017, City of Rancho Cordova listed Tree City USA.
NR.4.3.2	Designate local funds to educate the public on tree planting and preservation.	F / PIO	Ongoing	GF	Ongoing. (e.g. program to plan 1 tree a day, City Arbor Day Celebration)
NR.4.3.3	Coordinate with SMUD to offer programs or other resources to provide property owners with information on proper tree selection, proper location to reduce heat transfer effects, planting and maintenance.	PIO / PL	Ongoing	GF	Ongoing. **The City’s Urban Forest Program in partnership with the Sacramento Tree Foundation and SMUD, offers free trees for residents, businesses and organizations; free stump removal for residents; community tree-planting events; and tree advice from the City Arborist.**
NR.4.3.4	Actively participate in the Sacramento County Greenprint Program.	PL / PW	Ongoing	GF	On-going
NR.5.1.1	Install water-conserving landscaping and irrigation on City-owned and operated facilities.	CM	Ongoing	GF	On-going.
NR.5.1.2	Require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.	PW / PL	Ongoing	AF	Not Complete. However, new entitlements are required to comply with the City’s water conservation

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
					requirements and the State's Model Water Efficient Landscape Ordinances.
NR.5.1.3	Establish a program that requires per capita water consumption to be reduced by at least 20 percent by 2030 from 2006 baseline conditions consistent with State law. The program shall include the following measures: - Restrict water usage through metering or establishing designated watering days for the City's residences and businesses. - Promote water conservation efforts through education. - Implement standards that require low-flow appliances and fixtures in all new development. - Work with water providers and water conservation agencies to create an incentive program that encourages retrofitting existing development with low-flow water fixtures. - Require new development and landscaped public areas to utilize state-of-the-art irrigation systems that reduce water consumption (e.g., gray-water systems, etc). - Encourage drought-tolerant and native vegetation.	PW / PL	2008 / 2009	GF	Ongoing.
NR.5.1.4	Require water purveyors to include a provision for water supply monitoring and reporting in the franchise agreements.	PW	Ongoing	GF	Ongoing.
NR.5.2.1	Establish a Large-Scale Recycled Water Program and Citywide Recycled Water Distribution System Ordinance.	PW	2006 / 2007	GF	Determined not feasible
NR.5.2.2	Coordinate with the City's water purveyors to establish a connected "purple pipe" system throughout the City's new development areas that uses recycled water.	PW	2007 / 2008 / Ongoing	GF	Not Complete. Not feasible.
NR.5.3.1	Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.	PW / PL	Ongoing	GF	Ongoing Is required by law, addressed during the project review and Conditions of Approval phase.
NR.5.3.2	Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.	PW / PIO	Ongoing	GF	Ongoing. Part of the City's compliance with the NPDES permit. **The City of Rancho Cordova Website was updated in 2021.**
NR.5.3.3	Install appropriate signage to deter the discharge of hazardous materials into storm drains.	PW	Ongoing	GF / AF	Complete and Ongoing
NR.5.3.4	Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards. Future land uses that include on-site storage of hazardous materials and waste comply with all	PW / B	Ongoing	GF / AF	Public Works has expanded enforcement and education for the City's Storm Water Quality Program. Building & Safety and Code Enforcement are assisting with enforcement.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	applicable local, state and federal regulations, including those regulating the use, storage, handling and disposal of hazardous materials.				
NR.5.4.1	Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.	PIO / PW	Ongoing	GF	Ongoing and included on the City's website **The City of Rancho Cordova Website was updated in 2021.**.
NR.5.4.2	Require clean-up of contaminated ground and surface water by current and / or past owners or polluters.	PW / PL	Ongoing	AF	Ongoing.
NR.5.4.3	Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.	PW / PL	Ongoing	AF	Ongoing and included on the City's website.
NR.5.5.1	Require development projects to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.	PL / PW	Ongoing	GF	Ongoing, part of the entitlement review. Adopted Drainage requirements
NR.5.5.2	Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.	PW / PL	Ongoing	AF	Ongoing per entitlement review. Adopted Drainage requirements
NR.5.5.3	Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.	PW / PL	Ongoing	AF	Ongoing per entitlement review.
NR.5.5.4	Require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff consistent with current state law.	PL / PW	Ongoing	AF	Ongoing per entitlement review.
NR.6.1.1	Regulate surface mining operations as required by California's Surface Mining and Reclamation Act of 1975 ("SMARA"), Public Resources Code Section 2207 (relating to annual reporting requirements), and State Mining and Geology Board regulations for surface mining and reclamation practice.	PL	Ongoing	GF / AF	Ongoing per entitlement review.
NR.6.1.2	Coordinate mining operations and urban development to minimize conflicts between residents and mining, particularly where mining is required before urbanization.	PL	Ongoing	AF	Ongoing as part of the specific plan and master plan review.
NR.6.1.3	Require inactive mined lands to be reclaimed to a usable condition that is readily adaptable to the future, anticipated land uses.	PL	Ongoing	GF / AF	Ongoing.
NR.6.2.1	Establish and require minimum setbacks of future and reauthorized surface mining from adjoining residential land uses.	PL	Ongoing	GF	Ongoing with entitlement and development permit process.
NR.6.2.2	Prohibit the use of cyanide-leaching systems for gold extraction.	B / PW	Ongoing	GF / AF	Ongoing.

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NR.7.1.1	Develop educational programs to increase energy conservation at the household and business levels.	PIO / B / PL	2008 / 2009	GF	Building & Safety website directs developers and property owners to the State website regarding Energy Code requirements, and incentive programs that may help defer costs.
NR.7.1.2	Develop a comprehensive program to conserve energy resources at City-operated facilities.	B / PL	2006 / 2007	GF	Ongoing with the Facilities Department. **The City of Rancho Cordova Website was updated in 2021.**
NR.7.3.1	Offer incentives (e.g., reduced fees, expedited entitlement processing, density bonus) for plans/projects that exceed Title 24 energy efficiency requirements by ten percent.	PW / PL	Ongoing	GF / AF	Some financial incentives are given for energy efficiency. However, they not incentives that would allow the project to differ cost or deviate from development standards.
NR.7.4.1	Consider the following items as ways to implement this policy: - Fund a program that offers incentives for adding energy efficient systems into existing developments; - Work with local utility providers to make the public aware of energy rebate programs; and - Work with community organizations, such as SMUD, to encourage the inclusion of energy efficient systems in remodels and retrofits of existing development.	B / PL / PIO	2008 / 2009 / Ongoing	GF	Building & Safety website directs developers and property owners to the State website regarding Energy Code requirements, and incentive programs that may help defer costs. **The City of Rancho Cordova Website was updated in 2021.**
NR.8.1.1	Continue providing curbside recycling and green waste service to all single-family and duplex residences in Rancho Cordova.	CM / PW	Ongoing	GF / UF	Ongoing. Private companies provide the service with different size containers. Information is on the City website
NR.8.1.2	Create and facilitate a series of educational workshops for the public and businesses on composting and recycling. Provide at least one program to increase recycling by occupants of multi-family housing.	PIO / B / PL / PW	2007 / 2008 / Ongoing	GF	Ongoing. **The City of Rancho Cordova Website was updated in 2021.**.
NR.8.1.3	Encourage all office, commercial, and multi-family complexes to provide recycling bins and collection service for paper, plastic, glass, and metal.	B / PL /PW	Ongoing	GF	Ongoing per the entitlement review. With coordination by Public Works.
NR.8.1.4	Provide recycling centers at City facilities (e.g., City Hall, libraries) that are available to the public free-of-charge.	CM / PW	2006 / 2007	GF	Ongoing and included on the City's website.
NR.8.1.5	Provide locations for household hazardous wastes to be recycled.	B / PW	2006 / 2007 / Ongoing	GF	Ongoing. Information provided ono the City's website.
NR.8.1.6	Remove impediments to successful recycling.	CM / PW	2006 / 2007	GF	Ongoing.
NR.8.2.1	Encourage the school districts within the Planning Area to support recycling at school sites by placing easily accessible recycling bins, providing educational programs on recycling, and using recycled products.	B / PL	Ongoing	GF	Ongoing.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
NR.8.4.1	Ensure that at least 50 percent of the City's office supply purchases are comprised of recycled or reusable products.	CM	Ongoing	GF	Ongoing.
NR.8.5.1	Implement the State's source reduction and recycling element (required by the California Integrated Waste Management Act) and the household hazardous waste element (required by PRC 41500-41510).	CM / PW	Ongoing	GF	Ongoing per current legislation.
X – CULTURAL AND HISTORIC RESOURCES ELEMENT					
CHR.1.1.1	Establish a permanent museum or cultural center to be used to display artifacts, documents, and public art relevant to the City's history and cultural diversity.	CM / HRC	2010	GF	There is an unofficial historical society for Rancho Cordova that meets at City Hall and keeps some of the historical items at City Hall.
CHR.1.1.2	Establish a Historic Resources Commission that is responsible for facilitating the collection, preservation, and display of the City's history.	CM	2007	GF	Not Complete
CHR.1.1.3	Commence and continue collection of the artifacts, photographs, memorabilia, and oral history of the community.	HRC	Ongoing	GF	Ongoing with different departments working with outside agencies.
CHR.1.1.4	Locate an interim facility to show and/or exhibit items of historic or cultural value. Establish exhibits for historic and cultural items at City Hall	CM / HRC	2007	GF	This has been established at the City Hall office.
CHR.1.1.5	Compile a thorough record of the City's incorporation, including records, documents, photos, and artifacts.	HRC	2008	GF	Progress has been made and is still ongoing.
CHR.1.2.1	Develop and regularly update a comprehensive historic resources inventory, coordinating with other agencies as necessary. The inventory will contain a list of all locally historically significant properties, as well as historic archaeological and paleontological resources in the Planning Area and a map depicting their locations.	PL / HRC	2007 / Ongoing	GF	Not complete.
CHR.1.2.2	Pursue recognition of all eligible historic properties by the National Register of Historic Places and California Register of Historical Resources.	HRC	Ongoing	GF	Not complete.
CHR.1.2.3	Improve and interpret Kilgore Cemetery. Interpreting the cemetery will include determining who is buried in the older portion of the site and increasing public awareness of the cemetery's significance.	CM / HRC	2008	GF	Ongoing.
CHR.1.2.4	Consider establishing review procedures for remodeling and reconstruction of buildings and other structures.	B / PL	2007 / 2008	GF	Complete per the entitlement and building permit review process. DST is also used to expedite reviews.
CHR.1.3.1	Require historic resources and paleontological studies (i.e., archaeological and historical investigations) for all applicable discretionary projects, in accordance with CEQA regulations. The studies should identify paleontological, historic, or cultural resources in the project area, determine their eligibility for inclusion in the California Register of Historical Resources, and provide mitigation measures for any resources in the project area that cannot be avoided.	PL	PR	AF	Ongoing per the entitlement review process and CEQA requirements.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
CHR.1.3.2	Incorporate the following two conditions in applicable 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 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.	PL	PR	AF	Completed per the standard conditions of approval and mitigation measures.
CHR.2.1.1	Establish a Cultural Arts Commission that will be responsible for coordinating cultural events, parades, festivals, coordinate and communicate with cultural and ethnic communities (with the City's Public Information Officer), and other activities as determined by the City Council..	CM / PIO	2007	GF	A Cultural Arts Commission has not been created, however, this is achieved by other means through partnership with the Cordova Community Council and community artists. City Council adopted an Arts Strategic Plan in December of 2019 and it provides a roadmap for continuing to build art programs in the community. The Arts Strategic Plan identifies guiding principles, desired outcomes, a cornerstone project, types of facilities needed, the need for staff to guide current and future efforts, cultivation of artists, partnerships for the arts, city funding for art and artists, as well as near-term, mid-term, and long-term actions. Through these efforts and partnerships the desired action is achieved.
CHR.2.1.2	Encourage development projects to include design features that identify and celebrate the different cultures that make up Rancho Cordova by updating, as necessary, the Design Guidelines to include provisions for cultural identity in development projects.	PL / CAC	PR	GF	Completed, but could provide more specifics in the design guidelines.
CHR.2.1.3	Encourage and invite cultural groups and organizations to participate/plan/operate citywide events and to showcase the City's cultural diversity at these events	CAC / PIO	Ongoing	GF	Ongoing.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
CHR.2.2.1	Provide City information (news, bulletins, application forms, etc) pursuant to programs designed to best capture the ethnic diversity of the community (i.e. in the four major languages used in the community and other languages on demand).	PIO / CM / CAC / PL/ B/ PW	Ongoing	GF	Complete and ongoing as part of our development service counter. **The City of Rancho Cordova Website was updated in 2021.**
CHR.2.2.2	Reach out to all ethnic groups in the City and invite and encourage their participation in City government.	PIO / CAC/ CM/ PL/ PW	Ongoing	GF	Complete and ongoing.
CHR.3.1.1	Work with community groups to establish a performing arts center in Rancho Cordova, ideally within the Downtown or Convention Overlay.	CAC	2010	GF	A performing arts center is located at the High School. The proposed Civic Center may include a performing arts center
CHR.3.1.2	Work with local schools and other educational and youth outlets to promote artistic performances by children and artistic education programs for children. Work with school districts to establish performing arts facilities in high school and junior high school campuses.	CAC	Ongoing	GF	Not complete under CAC, but work is done under the City's outreach programs under different departments. **The Mills Station Art and Cultural Center (MACC) provides Student Art Shows every year**.
CHR.3.1.3	Showcase youth artwork in public venues such as City Hall, public libraries, and other places throughout the community.	CAC	Ongoing	GF	Not complete under CAC, but work is done under the City's outreach programs under different departments.
CHR.3.1.4	As necessary, revise City ordinances to allow and promote on street visual art, dance, and theatrical performances in the Downtown. Include such provisions in the Downtown Specific Plan.	CAC / PL	2008	GF	Encouraged within the Folsom Boulevard SPA, open space and design guidelines, and the zoning code, but not required.
CHR.3.1.5	Work with existing theatre, music, arts, and other performing arts groups to help them find locations in Rancho Cordova.	CM / ED	Ongoing	GF	Ongoing as work is done under the City's outreach programs under different departments.
CHR.3.2.1	Establish a Cultural Arts Commission that is responsible for establishing a public art program, directing the use of public funds for art in public places, encouraging the use of art in private development projects, and administering other cultural and artistic programs for the City as deemed appropriate by the City Council.	CM / PL	2007	GF	City Council adopted an Arts Strategic Plan in December of 2019 and it provides a roadmap for continuing to build art programs in the community. The Arts Strategic Plan identifies guiding principles, desired outcomes, a cornerstone project, types of facilities needed, the need for staff to guide current and future efforts, cultivation of artists, partnerships for the arts, city funding for art and artists, as well as near-term, mid-term, and long-term actions. Through these efforts and partnerships the desired action is achieved.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
CHR.3.2.2	Promote the incorporation of monuments, plaques, signs, or artwork identifying Rancho Cordova's diverse history into development projects and on pedestrian and bicycle trails. Possible highlights include the area's agricultural, mining, Pony Express, and aerospace and aviation activities.	CAC / PL	Ongoing	GF	Not complete under CAC, but is discussed as part of the entitlement review and internal city projects. **Rio Del Oro Sign program includes sign designs with cobbles from the mine tailings as a highlight to the mining in the area.**
XI – SAFETY ELEMENT					
S.1.1.1	Conduct an evaluation, as part of the CEQA process, of the potential safety hazards of proposed development within the City and mitigate impacts as appropriate and practical to ensure a reasonable level of safety for residents, workers, and property owners.	PL	Ongoing	AF	Ongoing as new regulations and processes evolve as part of CEQA updates and case law. In addition, the City includes a Hazard Mitigation Plan
S.1.2.1	Participate in State mutual aid agreements with neighboring cities and counties; State and federal emergency relief agencies; and private enterprises such as Red Cross, Salvation Army, and local medical institutions to assist in shelter, relief, and first aid operations. Encourage cooperation among adjacent communities to provide backup fire suppression and law enforcement assistance in emergency situations.	PD	2006 / 2007	GF	Complete and ongoing.
S.1.2.2	Collaborate with Folsom Cordova and Elk Grove Unified School Districts, Cordova Park and Recreation District, the faith based community, and other public entities to continue to offer public safety education classes, including but not limited to personal safety, fire safety, traffic safety, and bicycle safety.	PD / F / PIO	Ongoing	GF	Ongoing.
S.1.3.1	Create, adopt, and update, as needed a local Emergency Management Plan identifying leadership, representatives, coordination, and action for responding to emergencies in a timely and efficient manner.	CM / PD / F	Ongoing	GF	Updated, completed in 2019
S.1.3.2	Participate in the Standardized Emergency Management System (SEMS) and the National Incident management System (NIMS), and comply with the State of California Emergency Services Act.	PD / F	Ongoing	GF	Ongoing.
S.1.3.3	Develop and adopt a pre-disaster ordinance for post-disaster recovery and reconstruction that includes provisions for debris clearance, damage assessment, demolitions, re-occupancy and building moratorium criteria, fee waivers and deferrals, and expedited permitting procedures for repair and reconstruction.	CM / PD / F	Ongoing	GF	Ongoing per the emergency preparedness plan coordinated with the Facilities department. **The Multi-Jurisdiction Hazard Mitigation Plan (HMP) update was competed in 2021 and adopted in March 2022**
S.1.4.1	Develop and update as necessary risk assessments and emergency management provisions to maintain or improve the safety rating of Rancho Cordova as a community with low risk of disruption.	CM / PD / F	Ongoing	GF	Ongoing. **The Multi-Jurisdiction Hazard Mitigation Plan Update was completed in 2021 and was adopted in March 2022.**

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
S.2.1.1	Support the construction of flood control projects when clear dangers to life and property exist.	PW	Ongoing	GF / AF	Ongoing.
S.2.1.2	Participate in the National Flood Insurance Program by updating the floodplain management ordinance as necessary to help reduce future flood damage. Participation in the National Flood Insurance Program makes federally backed flood insurance available to homeowners, renters, and businesses owners in Rancho Cordova.	PW	Ongoing	GF / AF	**Ongoing. The Multi-Jurisdiction Hazard Mitigation Plan was adopted in 2022. This is a 5 year Plan for the region.**
S.2.1.3	Participate with the City of Sacramento, the Army Corps of Engineers, and other Federal, State, and local governments and agencies to develop policies to finance, construct, and plan flood improvements to eliminate flooding in the City.	PW	Ongoing	GF	Ongoing.
S.2.2.1	Disapprove new projects that would result in new or increased flooding impacts on adjoining parcels or upstream and downstream areas, unless it can be shown that the existing drainage facilities are being improved to mitigate such impacts.	PL	Ongoing	AF	Complete and ongoing per the entitlement review.
S.2.2.2	Preclude development within the 100-year floodplain, as determined by the most recent floodplain mapping available from the Federal Emergency Management Agency (FEMA) or other acceptable source, unless otherwise approved by the City floodplain administrator based on site-specific mitigation.	PL	Ongoing	AF	Complete and ongoing per the entitlement review. Include within the zoning code overlay for development restrictions.
S.2.2.3	On flood-prone parcels, locate development on portions of the site that are not subject to flooding, consistent with other policies of this General Plan or provide an approved grading plan showing no-net-loss of floodplain storage.	PW / PL	Ongoing	AF	Ongoing per the entitlement and development permit review process.
S.2.2.4	Require every residential lot to have buildable area sufficient to accommodate a residence and associated structures outside the 100-year floodplain. Discourage the use of fill to create buildable area within the 100-year floodplain, except in extreme circumstances consistent with all other applicable policies and regulations, and after review to determine potential impacts on wildlife, habitat, and flooding on other parcels.	PW / PL	Ongoing	AF	Ongoing per the entitlement and development permit review process.
S.2.2.5	Require vehicular access to the buildable area of all parcels to be at or above the ten-year floodplain elevation.	PW / PL	Ongoing	AF	Ongoing per the entitlement and development permit review process.
S.2.2.6	Preclude the creation of lots whose access will be inundated by flows resulting from a ten-year or greater storm event. Bridges or similar structures may be used to provide access over creeks or inundated areas, subject to applicable local, state, and federal regulations.	PW / PL	Ongoing	AF	Ongoing.
S.2.2.7	Discourage additional crossings of natural creeks in order to reduce potential flooding and access problems, except as needed to provide roadway and trail connections and preserve natural resource areas.	PL / PW	Ongoing	AF	Ongoing per the entitlement and development permit review process.
S.2.2.8	Prohibit new and modified bridge structures that will cause an increase in water surface elevations of the 100-year floodplain, unless analysis clearly	PL / PW	Ongoing	AF	Ongoing per the entitlement and development permit review process.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	indicates that the physical and/or economic use of upstream property will not be adversely affected.				
S.2.3.1	Require all new urban development projects to either incorporate runoff control measures to minimize peak flows of runoff or otherwise implement Comprehensive Drainage Plans.	PW	Ongoing	AF	Ongoing per the entitlement and development permit review process.
S.2.3.2	Maintain drainage facilities in order to ensure their proper operation during storms.	PW	Ongoing	AF	Ongoing.
S.2.3.3	Prepare a Comprehensive Drainage Plan for all streams and their tributaries prior to any development within the 100-year floodplain.	PW	Ongoing	GF	Ongoing.
S.3.1.1	Continue to implement the Uniform Building Code to ensure that structures meet all applicable seismic standards.	B	Ongoing	AF	Complete and ongoing per the building permit review process.
S.3.2.1	Continue to require that all new construction projects complete a geotechnical report or conduct other appropriate analysis to determine the soils characteristics and associated development constraints and impose appropriate measures for geologically sensitive areas. This would include necessary measures to address expansive soil conditions.	B	Ongoing	BPF	Complete and ongoing per the building permit review process.
S.3.2.2	Impose the appropriate mitigation measures for new development located in seismic and geologically sensitive areas.	B	Ongoing	BPF	Complete and ongoing per the building permit review process.
S.4.2.1	Coordinate with Regional Transit and companies with railways in the City to ensure that they implement all appropriate safety measures.	PW / PL	Ongoing	AF	Ongoing per the entitlement and development permit review process.
S.4.2.2	Investigate improvements in crossing gates and warning devices on a regular basis.	PW	2007 / Ongoing	GF	Ongoing.
S.4.2.3	Make information on railroad crossing safety available at City Hall and on the City's website to encourage safe practices by City residents and businesses.	PW	2007 / Ongoing	GF	Created a link to the RT site on the City website
S.4.3.1	Evaluate the potential for grade separations at Mayhew Road, Bradshaw Road, Routier Road, Mather Field Road, and Zinfandel Drive roadway crossings.	PW	2007 / Ongoing	GF	Ongoing. **Mather Field Road Heritage Trail Complete. Zinfandel overcrossing is Under Review.**
S.4.3.2	Work with RT to design grade separations appropriate for each location.	PW	2006 / 2007	BPF	Completed and Ongoing.
S.4.3.3	Include the grade separations specified in Action S.3.3.1 in the Capital Improvement Plan, and collect fees to help fund their construction.	PW	2007 / Ongoing	GF	Ongoing.
S.5.2.1	Adopt, and update as necessary, local standards for maximum acceptable exposure for the evaluation of hazardous facilities for potential to create hazardous physical effects at offsite locations that could result in death, significant injury, or significant property damage.	PW	2007	GF	Ongoing. Part of the entitlement process

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
S.5.3.1	Regularly review the City's codes to ensure that City regulations reflect the most up-to-date standards for the storage, handling, and use of hazardous and toxic materials.	B / F	Annually	GF	Building & Safety continues to work closely with Metro Fire and the Sacramento County Environmental Management Department to educate the public on hazardous material handling and storage. This is also accomplished through enforcement of the California Building Code, and other provisions of the Health and Safety Code.
S.5.3.2	During the review and approval process for development plans and building permits, ensure that secondary containment is provided for hazardous and toxic materials.	PL / PW / B / F	Ongoing	AF	Complete and ongoing per the entitlement review. Building & Safety continues to work closely with Metro Fire and the Sacramento County Environmental Management Department to ensure hazardous material handling and storage policies are current with state and federal regulations. This is also accomplished through enforcement of the California Building Code, and other provisions of the Health and Safety Code
S.5.3.3	Require all sites that are suspected or known to contain hazardous materials and / or are identified in a hazardous material / waste search to be reviewed, tested, and remediate for potential hazardous materials in accordance with all local, state, and federal regulations.	B / F	Ongoing	GF	Building & Safety continues to work closely with Metro Fire and the Sacramento County Environmental Management Department to ensure hazardous material issues are dealt with expediently and are current with state and federal regulations. This is also accomplished through enforcement of the California Building Code, and other provisions of the Health and Safety Code.
S.5.4.1	Support the continued enforcement of permitting requirements for radioactive materials.	Fire	Ongoing	GF	Ongoing.
S.5.4.2	Enforce public safety standards for the use of radioactive materials, including the placarding of transport vehicles.	Fire	Ongoing	GF	Ongoing.
S.5.5.1	Require industries which store and process hazardous or toxic materials to provide a buffer zone between the materials and the property boundaries; the buffer zone must be sufficient to protect public safety, as determined by the Planning Department..	Fire / PD	Ongoing	GF	Ongoing.
S.5.5.2	Consider the impact of proposed industrial development projects with respect to transport of hazardous materials within the city. Locate uses	PL / F / PW	Ongoing	AF	Ongoing

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	requiring substantial transport of hazardous materials to direct such traffic away from the city's residential and commercial areas.				
S.5.6.1	Continue to coordinate with the State Office of Emergency Services, the State Department of Toxic Substances Control, the State Highway Patrol, County of Sacramento, the Sacramento Metropolitan Fire District, the Rancho Cordova Police Department, and other appropriate agencies in hazardous materials route planning and incident response.	CM / F / PD	Ongoing	GF	Ongoing.
S.5.6.2	Request that state and federal agencies that regulate the transportation of hazardous materials review regulations and procedures, in cooperation with the City, to determine means of mitigating the public safety hazard in urbanized areas.	PD / F	Ongoing	GF	Ongoing.
S.6.1.1	Limit the height of structures consistent with Federal Aviation Regulation (FAR) Part 77 regulations.	PL / B	Ongoing	GF / AF	Complete and ongoing per the entitlement review.
S.6.1.2	Site new land uses consistent with the CLUP for noise impacts and safety restrictions.	PL / B	Ongoing	AF / GF	Complete and ongoing per the entitlement review.
S.7.1.1	Adopt and periodically update development standards and design guidelines consistent with current Crime Prevention through Environmental Design (CPTED). Specifically, incorporate provisions to address the following: - Natural Surveillance. Intended to keep intruders easily observable, natural surveillance provisions maximize visibility of people, parking areas, and building entrances (e.g., doors and windows that look out on to streets and parking areas, pedestrian-friendly sidewalks and streets, front porches, adequate nighttime lighting). - Territorial Reinforcement. Physical design can create or extend a sphere of influence. Users then develop a sense of territorial control while potential offenders, perceiving this control, are discouraged. This design concept is implemented by features that define property lines and distinguish private spaces from public spaces using landscape plantings, pavement designs, gateway treatments, and fences. - Natural Access Control. A design concept directed primarily at decreasing crime opportunity by denying access to crime targets and creating a perception of risk for offenders. This design concept is achieved by designing streets, sidewalks, building entrances, and neighborhood gateways to clearly indicate public routes, and also by discouraging access to private areas with structural elements. - Target Hardening. This is accomplished by adding features that prohibit entry or access, including window locks, dead bolts for doors, and interior door hinges.	PD / PL	2007 / Ongoing	GF	Mentioned in the City's standards. The Police Dept reviews and comments on new development
S.7.1.2	Adopt and implement a City of Rancho Cordova Uniform Security Code to ensure all structures meet applicable security standards.	PD / PL	2006 / 2007 / Ongoing	GF	Not Completed.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
S.7.1.3	Adapt transit-oriented development guidelines to the needs of crime prevention to the extent possible.	PD / PL	2007 / Ongoing	GP / AF	Not Completed. However, the Police Dept reviews and comments on new development
S.8.1.1	Complete a review of police services in the City on an annual basis and provide funding for additional services as needed and in conjunction with increased development.	PD	2006 / 2007	GF	Ongoing.
S.9.1.1	Continue to review new development for adequate water supply and pressure, fire hydrants, and access to structures by fire fighting equipment and personnel.	FD	Ongoing	GF	Ongoing per the entitlement and development permit review process.
S.9.1.2	Continue to review projects for compliance with the Fire Code as part of the building permit process.	FD	Ongoing	AF	Ongoing.
S.9.1.3	Work with SMFD to develop high visibility fire prevention programs, including those that provide voluntary home inspections and increase awareness of home fire prevention measures.	B	Ongoing	BPF	Building & Safety continues to work closely with Metro Fire to educate the public on fire safety issues. This is also accomplished through enforcement of the California Fire Code.
S.9.1.4	Require on-site fire suppression systems for new commercial and industrial development, as well as multi-family residential development with five or more units, to reduce the dependence on fire department equipment and personnel.	FD	Ongoing	GF	Ongoing.
S.9.1.5	Continue to maintain, periodically update, and test the effectiveness of the City's Emergency Management Plan.	FD	Ongoing	GF	Ongoing.
S.9.1.6	Require the installation of earthquake-triggered automatic gas shut-off sensors in high-occupancy facilities and in industrial and commercial structures.	PD	Ongoing	GF	Ongoing.
S.9.1.7	Continue to enforce all existing codes and ordinances regarding fire protection, including building inspection and vegetation management.	B FD / NS	Ongoing	BPF / GF	Complete and ongoing per the building inspection and code enforcement process. XII – Air Quality Element Complete and ongoing. All city facilities are held to the standards required for energy conservation and sustainable design, in accordance with state and federal guidelines and requirements.
S.9.1.8	Coordinate the design and installation of traffic control and calming measures to minimize impacts on emergency vehicle responses.	PW / FD	Ongoing	GF	Ongoing per the entitlement and development permit review process.
S.9.1.9	The City shall require that future projects are not initiated without assurance from the Sacramento Metropolitan Fire District that sufficient service capacity exists for fire protection and emergency medical services. Service capacity considers the proximity of fire stations, availability of	PW / PL / FD	Ongoing	GF	Ongoing.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	personnel and equipment, water flow and pressure to the site, and adherence to Fire District construction and design requirements.				
XII – AIR QUALITY ELEMENT					
AQ.1.1.1	Use the emissions guidelines produced by the California Air Resources Board, SMAQMD, and SACOG to ensure that City facilities and operations comply with mandated measures.	PL	Ongoing	GF	Ongoing per the entitlement and development permit review process.
AQ.1.1.2	Support SMAQMD in the development of improved ambient air quality monitoring capabilities, as well as the establishment of standards that more adequately address the air quality impacts of proposed project plans and proposals.	PL	Ongoing	GF	Ongoing per the entitlement and development permit review process.
AQ.1.1.3	Support intergovernmental efforts directed at adopting stricter standards related to lowest emission technology vehicles, and more efficient burning engines and fuels (e.g., HVAC, generators, construction equipment, stricter tailpipe emissions standards, etc.).	CM	Ongoing	GF	Ongoing.
AQ.1.1.4	Update the General Plan as necessary if updates to the Sacramento Area Regional Ozone Attainment Plan would create inconsistencies between future buildout of the General Plan Planning Area and the Attainment Plan.	PL	Ongoing	GF	Ongoing.
AQ.1.2.1	Coordinate with SMAQMD through the environmental review process to ensure that proposed projects would not significantly affect the region's ability to meet State and federal air quality standards.	PL	Ongoing	GF	Ongoing per the entitlement and development permit review process.
AQ.1.2.2	Require project proponents to coordinate with SMAQMD on appropriate methodologies for evaluating project emissions and air quality impacts (e.g., emissions modeling software, SMAQMD's thresholds of significance, etc.).	PL	Ongoing	AF	Ongoing per the entitlement and development permit review process.
AQ.1.2.3	Require all new development projects that exceed SMAQMD's thresholds of significance to incorporate design, construction material, and/or other operational features that will result in a 15 percent reduction in emissions when compared to an "unmitigated baseline" project.	PL	Ongoing	AF	Ongoing per the entitlement and development permit review process.
AQ.2.1.1	Support the location of ancillary employee services, including childcare, restaurants, banking facilities, and convenience markets, at major employment centers for the purpose of reducing mid-day vehicle trips.	PL / ED	Ongoing	GF	Ongoing per the entitlement and development permit review process.
AQ.2.2.1	Promote compact development within one-quarter to one-half mile of rail transit stations and transit stations along enhanced transit corridors.	PL	Ongoing	GF	Ongoing per the entitlement and development permit review process.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
AQ.2.2.2	Require greenfield areas of the City to be developed in keeping with the City's Building Block Concept of livable, walk able neighborhoods with services and employment opportunities integrated within every Village of the community.	PL	Ongoing	GF	Ongoing per the entitlement and development permit review process; however specific "blocks" have not been defined.
AQ.2.3.1	Identify and adopt incentives for planning and implementing infill development projects within urbanized areas and near job centers and transportation nodes.	PL	2007 / 2008 / Ongoing	GF	Not completed.
AQ.2.4.1	Provide buffers and setbacks between sensitive land uses and sources of air pollution.	PL	Ongoing	AF	Completed and ongoing.
AQ.2.4.2	Continue to implement criteria for all new parking lots to include tree plantings that will result in 50 percent shading of parking lot surface areas within 15 years.	PL / PW	Ongoing	GF	Ongoing per the entitlement and development permit review process.
AQ.3.1.1	Facilitate street design that encourages biking and walking in both new and established areas.	PW / PL	Ongoing	GF / CIP	Ongoing per the entitlement and development permit review process.
AQ.3.1.2	Require all new development to be designed to enable easy pedestrian and bicycle access and circulation.	PW / PL	Ongoing	AF	Ongoing per the entitlement and development permit review process.
AQ.2.1.1	Develop and distribute user-friendly maps of the City's existing and planned pedestrian and bicycle facilities to businesses and post on the City's website.	PIO	Ongoing	GF	Ongoing per the entitlement and development permit review process. Maps are provided online and at City Hall. **The City of Rancho Cordova Website was updated in 2021.**
AQ.3.2.1	Provide and / or adequately advertise shuttles from local transit stations to special event and civic centers.	PW / PIO	Ongoing	GF	Maps are provided online and at City Hall. **The City of Rancho Cordova Website was updated in 2021.**
AQ.3.2.2	Encourage employers to provide: direct shuttle service to light rail; transit subsidies; bicycle facilities; ridesharing; flex schedules and alternative work schedules, including telecommuting and work-at-home programs; and preferential parking for carpools.	PW / PL	Ongoing	GF	Part of TMA
AQ.3.2.3	Support the development of Transportation Demand Management services through the City's Transit-Related Services Tax Area that result in active marketing of transit services, ride sharing programs, bike and pedestrian facilities, transit facilities, and provision of transit subsidies that provide air quality benefits.	PW	Ongoing	Transit tax	Ongoing.
AQ3.2.4	Require that new development pay its fair share of the cost of transit facilities and the operations and maintenance of transit services.	PW	Ongoing	AF	Ongoing.
AQ3.3.1	Encourage commercial, retail, and residential developments to participate in or create Transportation Management Associations.	PW	Ongoing	AF	Ongoing.
AQ.3.3.2	Recommend that business owners schedule deliveries at off-peak traffic periods.	PW	Ongoing	GF	Ongoing.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
AQ.3.4.1	Require designated carpool and vanpool parking in all new office developments.	PW / PL	Ongoing	GF	Encouraged during entitlement review
AQ.3.4.2	Consider developing a model trip reduction and air quality improvement program for City employees. The program could include flexible or compressed work schedules, commuter matching services, telecommuting options, and preferential carpool / vanpool parking, transit subsidies.	PL / PW / PIO	2007 / 2008	GF / transit tax	City Hall location includes EV Stations. Flexible work schedules for employees are available
AQ.4.1.1	Require energy-conserving features in the design and construction of new development. Many options exist for reducing pollution from energy-producing systems, including the following: - Requiring the use of the best available technologies to reduce air pollution standards. - Using building materials and methods that reduce emissions and improve indoor air quality (e.g., LEED certification, LEED Green Buildings, EPA Green Building, etc.). - Requiring that development projects be located and designed in a way that minimizes direct and indirect emission of air contaminants. - Installing efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units. - Utilizing automated time clocks or occupant sensors to control heating systems.	B / PW	Ongoing	GF	Complete and ongoing. Currently the City enforces the provisions of the California Energy Code, the Green Building Standards and the Building Energy Efficiency Standards that are referenced within.
AQ.4.1.2	Encourage the use of cost-effective and innovative emission-reduction technologies in building components and design.	PW / PL	Ongoing	AF	Ongoing, future plans may involve work with economic development and SACOG for funding opportunities and projects.
AQ.4.1.3	Support the use of building materials and methods that increase efficiency beyond State Title 24 standards.	B / PL	Ongoing	AF	Complete and ongoing per the entitlement and building permit process review.
AQ.4.1.4	Encourage the use of “EPA Energy Star”-certified appliances.	B / PIO	Ongoing	GF	Ongoing.
AQ.4.1.5	Promote the implementation of sustainable design strategies for “cool communities,” such as installing reflective roofing or light-colored pavement and planting urban shade trees.	B / PIO	Ongoing	GF	Complete and ongoing per the building permit process review.
AQ.4.1.6	Consider incorporating energy-conserving design and construction techniques in all City facilities.	B	Ongoing	GF	Complete and ongoing per the building inspection and code enforcement process. XII – Air Quality Element Complete and ongoing. All city facilities are held to the standards required for energy conservation and sustainable

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
					design, in accordance with state and federal guidelines and requirements.
AQ.4.2.1	Replace the City's fleet vehicles with new vehicles that utilize the lowest emission technology available, whenever economically feasible.	CM	Ongoing	GF / Grants	Completed and on-going
AQ.4.2.2	Consider adopting a policy that provides a preferential treatment to contractors using reduced emission equipment for City construction projects and for City contracts for services (e.g., garbage collection).	CM / B	2006 / 2007	GF	Not complete. The City can expedite the review for priority projects, but does not have a process for preferential treatment.
AQ.4.2.3	Encourage lowest emission technology buses in public transit fleets.	CM	Ongoing	GF	Complete and ongoing.
AQ.4.2.4	Promote developments and street systems that support the use of neighborhood electric vehicles.	PW / PL	Ongoing / PR	AF	Not Complete
AQ.4.2.5	Adopt an ordinance that limits the amount of time diesel-powered trucks, buses, and other heavy vehicles may idle in accordance with California Air Resources Control Board rules for mobile TAC sources, and that restricts placing new sensitive receptors within the proximity of known toxic air contaminant (TAC) producing facilities and land uses. Sensitive receptors shall be located a safe distance from TAC sources as described in California Air Resources Board guidelines and Sacramento Air Quality Management District requirements.	PW	2007 / 2008	GF	Ongoing. Included in the Air Quality District provisions and CEQA review.
AQ.4.4.1	Enforce construction-related air quality mitigation measures adopted through the CEQA process.	PL	Ongoing	AF	Complete and ongoing.
AQ.5.1.1	Provide air quality information on the City's website, including links to public information provided by SMAQMD and the California Air Resources Board.	PIO	Ongoing	AF	Ongoing. **The City of Rancho Cordova Website was updated in 2021.**
AQ.5.1.2	Encourage employers to post flyers about carpools, vanpools, and other modes of transportation that contribute to improved air quality in locations that are easily visible to employees.	PIO	Ongoing	GF	Ongoing.
XIII – NOISE ELEMENT					
N.1.1.1	Adopt a Noise Ordinance with noise level performance standards, including maximum allowable noise exposure, ambient vs. nuisance noise, method of measuring noise, and enforcement procedures.	PL / CM	2007	GF	Sound regulated per RCMC 6.68 (noise control). This standard is outdated and taken from the County. Needs revision and guidelines for mitigation.
N.1.2.1	Require new development of noise-creating uses to conform to the City's maximum noise levels.	PL	Ongoing	AF	Completed and ongoing as part of the entitlement process.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
N.1.2.2	Require an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas where current or projected exterior noise levels exceed the City's standards.	PL	Ongoing	AF	Completed and ongoing as part of the entitlement process.
N.1.2.3	Require any potential noise impacts identified during the acoustical analysis to be mitigated in the project design to the maximum extent feasible.	PL	Ongoing	AF	Completed and ongoing as part of the entitlement and building permit process. Is also required per CEQA analysis.
N.1.3.1	Require an acoustical analysis as part of the environmental review process when proposed non-residential land uses are likely to produce noise levels that exceed the City's noise standards. The acoustical analysis must be prepared by a qualified person experienced in environmental noise assessment and architectural acoustics, and must estimate existing and projected cumulative noise levels and compare those levels to the policies within this Element.	PL	Ongoing	AF	Completed and ongoing as part of the entitlement process.
N.1.3.2	Require any noise impacts identified in the acoustical analysis to be mitigated in conjunction with the project design.	PL	Ongoing	AF	Completed and ongoing as part of the entitlement and CEQA review process.
N.1.4.1	Limit construction activity to the hours of 7 a.m. to 7 p.m. weekdays and 8 a.m. to 6 p.m. weekends when construction is conducted in proximity to residential uses.	PL / PW / B	Ongoing	AF / BPF	Complete and ongoing per the noise element and municipal requirements.
N.1.4.2	Consider restricting the hours of operation of loading docks, trash compactors, and other noise-producing uses in commercial areas that are adjacent to residential uses.	PL	Ongoing	AF	Completed and ongoing as part of the entitlement and building permit process.
N.1.4.3	Require stationary construction equipment and construction staging areas to be set back from existing noise-sensitive land uses.	PL	Ongoing	AF	Completed and ongoing as part of the entitlement and building permit process.
N.1.6.1	Develop guidelines, strategies, and standards specifically related to maintaining acceptable noise levels in higher density development. Consider design and construction standards that minimize noise conflicts between residents with shared walls or floors / ceilings.	PL / B	2007	GF	There are indirect regulations and guidelines (i.e. sound wall, landscaping, UBC requirements), but nothing within the zoning code.
N.2.1.1	Encourage placement of light rail lines below the grade of the roadway in order to reduce noise impacts.	PW / PL	Ongoing	GF	This has not been achieved.
N.2.2.1	Assess the significance of the noise increase of all roadway improvement projects in existing areas according the following criteria: - Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and - Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and	PL / B	Ongoing	AF / BPF	Complete and ongoing per the entitlement review.

	Action	Responsible Party	Time Frame	Funding Source	Status 2021
	- Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.				
N.2.3.1	Adopt a Citywide noise reduction program to reduce traffic noise and other noise levels.	PL / PW	2007 / 2008	GF	This has not been achieved. However, the City is implementing rubberize asphalt in certain sections on thoroughfares. The rubber asphalt reduces vehicle tire noise.

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Goal H.1	**Seek a balance of housing opportunities appropriate for the range of jobs available and planned in the city.**				
Policy H.1.1	Improve the City's jobs-housing balance through ensuring that housing development in Rancho Cordova provides opportunities for all income levels in order to serve the full range of available and projected jobs in the City.				
Action H.1.1.1	The City will work with the Economic Development Department to inquire with larger employers in the community to determine salary information and employee preference regarding housing type.	General Fund	Economic Development Department	Inquire with employers once every two years.	The City Economic Development Department receives California Employment Development Department (EDD) data with salary information in relation to industries.
Policy H.1.2	Maintain adequate sites that support a range of housing types appropriate for the City's housing needs, taking into account employment projections, household growth, and the City's share of regional housing needs.				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Action H.1.2.1	Residential development projects of 100 gross acres or more shall include a minimum of 5 percent of the total project residential developable acreage (net) for residential uses of 30 units per acre or higher. This minimum high density acreage requirement is calculated to satisfy projected RHNA to the City. Additionally the City will require a minimum of 5 percent for residential uses of 10 units per acre or higher. Development projects with a requirement of less than 5 acres in either or both categories may opt to designate land off-site, if deemed appropriate for the project. If projects propose densities higher than the identified density, the required acreage shall be decreased accordingly. For example, if a project is required to provide 15 acres at 30 units per acre, that project could alternatively provide 11.25 acres at 40 units per acre. Similarly, if the project's requirement for land with density of 10 units per acre was 6 acres, the project could alternatively provide 4 acres at 15 units per acre. For the purpose of satisfying the 5 percent for land uses at or above 30 units per acre, sites must meet the following requirements:	General Fund, Local Housing Trust Fund	Planning Department, Housing Division	Ongoing, as residential applications are received.	The City has met the high-density set-asides in all of the new Development Entitlements that have been recently approved or are currently under review. As part of the development review process, all new housing projects are reviewed for their compliance to these housing standards.
	Sites must be zoned exclusively residential.				
	Acres used to satisfy RHNA requirements will be required to maintain set minimum densities.				
	Sites must be of sufficient size to accommodate a minimum of 16 units per site.				
	Sites must be proximate to public transportation routes which provide ready access to fixed rail.				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Policy H.1.3	Promote a broader range of housing options for executives.				
Action H.1.3.1	The City's Zoning Code accommodates and facilitates the development of executive housing options in Specific Plans and large subdivisions (500+ units) in the Rural Residential (RR) and the Estate Residential (ER) zones.	General Fund	Planning Department	Ongoing, as projects are possessed though the Planning Department.	The Suncreek and Rio Del Oro Specific Plans were approved in 2013 and 2016, respectively. These plans include a variety of housing types and densities, ranging from 6.1 dwelling units per acre (du./acre) to 40 du./acre. As addressed in the 2021-2029 Housing Element land use and sites inventory, the City's current zoning standards, accompanied with vacant land, has the capacity to meet the City's fair share of the housing needs within the current planning cycle.
Policy H.1.4	Promote higher density housing in close proximity to transit, employment, and appropriate services, such as transit-oriented development				
Action H.1.4.1	As part of an ongoing effort to promote transit-oriented development the City will coordinate with regional partners to incentivize the production of housing for persons living and working in same community. o Density Bonus - The TOD overlay provides substantial density bonus up to 80 units per acre for projects that are within one-quarter of a mile of transit stations.	General Fund	Public Works, Housing Division, Planning, and Economic Development departments	The City will coordinate efforts to apply for funding for transit-oriented developments as Notices of Funding Available (NOFAs) are released and will create project requirements and incentives to encourage reduced auto use in transit nodes.	The City is maintaining a commitment to TOD high-density residential in review of all projects to be located adjacent to Regional Transit access points. The Crossings at New Rancho, an affordable multifamily project near the Zinfandel light rail station, was

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	o SACOG – The City will continue to work with SACOG to identify and apply for grant opportunities aimed at planning and promoting TOD development along the Regional Transit Light Rail lines. o Regional Transit – The City will continue to cooperate with Regional Transit in identifying transit needs in the community and working to provide viable solutions. These may include negotiating new bus routes, partnering to provide special or commuter routes, creating and maintaining a discount RT pass program for low- and very low-income residents living in the City's affordable housing, and leveraging new infill development projects around existing mass transit infrastructure (Transit Oriented Development). o Local and Regional Complete Streets Advocate groups – The City will continue to work with local and regional Complete Streets Advocate groups to improve transportations options in the City, including bicycle lanes, improved pedestrian access, and better connectivity between existing alternative transportation options and local mass transit (such as dedicated pedestrian pathways), particularly in development projects located immediately adjacent to transit services.				completed and is currently occupied. The City purchased a 10- acre TOD property in 2018 and has plans to provide housing and community uses at this site. The Sunrise Crossings Apartments, an 82-unit affordable housing development will be under construction in 2022 adjacent to the Sunrise light rail station. In addition, all new master plans and specific plans currently under review contain a variety of multimodal transportation options that focus on linkages (i.e., bike to bus, bus to light rail) to improve connectivity and usage of existing transit systems.
Policy H.1.5	Developers of new residential projects within the newly developing areas of the City (generally in the large, vacant areas south of Highway 50) shall prepare an Affordable Housing Plan (Plan) for the project for City review and approval that identifies the project's plan for providing affordable housing.				
Action H.1.5.1	The City has established the following guidelines to provide direction for the review of Affordable Housing Plans associated with individual development projects and to provide direction for the preparation of an Affordable Housing Ordinance if one is to be developed.	General Fund	Housing Division, Planning and Economic Development Departments	The Affordable Housing Plan obligations will be implemented as projects are received by the Planning Department.	The City has negotiated Affordable Housing Plans (AHPs) with the developers of the Suncreek Specific Planning Area, Rio del Oro, and The Ranch

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	The Affordable Housing Plan shall be approved in conjunction with the earliest stage of project entitlement, typically with the City Council approval of the Specific Plan, Development Agreement, or other primary land use entitlement.				Special Planning Area, as per Housing Element standards. Future Specific Plans will also include AHPs. The total of these three areas with AHPs is 5,080 affordable units at build out.
	The Affordable Housing Plan shall specify and include the following:				
	1) A projection of the number of dwelling units that will be developed as affordable to extremely low-, very low-, low , moderate-, and above moderate-income households				
	2) The number of affordable ownership and rental units to be produced. Such split shall be approved by the City Council based on housing needs, market conditions, and other relevant factors. The split of ownership and rental units shall be addressed within the Plan of each individual project.				
	3) Program options within project-specific Affordable Housing Plans may include but are not limited to the following:				
	The timing for completion of affordable housing obligations includes the following considerations: - Actual production (on-site or off-site) of affordable units (including ownership and rental opportunities in the form of corner units, halfplexes, duplexes, cottages, creative alternative housing products, etc.), prioritizing production in areas of high opportunity. - Land dedication (on-site and off-site). - Rehabilitation of existing residential structures located within existing City neighborhoods. - Payment of in-lieu fees.				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	For projects proposing to construct affordable housing units or to renovate existing dwellings, the City generally supports construction/renovation of affordable dwellings concurrent with the construction of market-rate housing when feasible. - For projects providing alternative contributions (land dedication, funds, etc.), timing of such contributions shall be identified in the project specific Affordable Housing Plan, with the expectation that the City will pursue construction of affordable units generally concurrent with construction of project market-rate housing.				
	4) At the City Council's discretion, land or other contributions provided by developers as specified within project-specific Affordable Housing Plans may be utilized to augment City efforts and the efforts of its nonprofit partners to provide affordable housing opportunities to all income levels throughout the community. The City will pursue supplemental funding to allow affordability to households earning less than 50 percent of area median income.				
	5) In order to ensure the production and preservation of housing affordable to the City's workforce, no productive, reasonable program or incentive option will be excluded from consideration within project-specific Affordable Housing Plans. Possible incentives may include, but are not limited to:				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	Density bonuses Fee waivers or deferrals (as reasonably available) Expedited processing/priority processing Reduced parking standards Technical assistance with accessing funding Modifications to development standards (on a case-by-case basis) Other incentives				
Action H.1.5.2	The City will annually monitor and revise as necessary, the Affordable Housing Plan negotiation and development process to ensure that the planning process does not pose a constraint on the development of housing.	General Fund	Housing Division	Annually monitor the Affordable Housing Plan.	Staff has monitored the current processes and applications annually and has not identified any constraints to the development of housing.
Action H.1.5.3	Together with the developer and nonprofit partners, including but not limited to, Mercy Housing, Nations Finest, Bridge Housing, Sacramento Self Help Housing, Urban Housing Communities (UHC), and Related California, the City will use maximum efforts to seek available resources to support the construction of affordable housing production for feasible projects, including, but not limited to, state and federal housing programs and the City programs such as the City's non-residential linkage fee (Local Housing Trust Fund). The City will also commit to convening an annual meeting with affordable housing developers to solicit information on what is needed from the City to support affordable housing production in the City and will collaborate, help, and support applications for funding to complete projects and will assist in identifying sites for development in high resource areas.	State and federal housing programs and the City programs such as the City's non-residential linkage fee (Local Housing Trust Fund)	Housing Division	Apply for funding as programs are available, annually meet with housing developers, collaborate on application support as projects come forward.	The City is currently working on two affordable development projects with two developers totalling 110 units. 82 of those units will be under construction in 2022. The City is levering local funds by using its Local Housing Trust Fund, City fee incentives, and the HOME Consortium to secure state tax credits.

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Action H.1.5.4	Amend the Zoning Ordinance to allow and promote the use of density bonuses to provide affordable housing consistent with current state law. The City will encourage developers in high resource areas to take advantage of the density bonus and promote affordable housing in these areas.	General Fund	Housing Division	Ongoing, as projects are processed through the Community Development Department. Comply with State Law by July 2022.	The Zoning Ordinance was amended in 2021. This Action is complete.
Policy H.1.6	Allow housing developments with at least 20 percent affordable housing by right on lower-income housing sites that have been counted in previous housing element cycles, consistent with AB 1397.				
Action H.1.6.1	The City will monitor sites previously counted in the past two housing elements, specifically sites A-1, C-1, D-1, and D-2.	General Fund	Housing Division	Ongoing, as projects are processed through the Community Development Department.	The sites are being monitored for housing development project applications. No applications requesting by-right approvals were submitted in 2021.
GOAL H.2	**ENCOURAGE THE IMPROVEMENT, REHABILITATION, AND REVITALIZATION/REINVESTMENT OF THE CITY'S EXISTING RESIDENTIAL NEIGHBORHOODS**				
Policy H.2.1	Provide neighborhood revitalization in existing areas through housing rehabilitation (owner- and renter-occupied units).				
Action H.2.1.1	The City shall continue to apply for federal and state funds to fund the City's housing rehabilitation program to assist in the improvement of owner- and renter-occupied housing units in the City. The City will market the program in the R/ECAP north of Folsom Boulevard and areas of concentrated poverty to assist residents with the cost of repairs and thus reduce risk of displacement due to costs or housing condition.	Community Development Block Grant (CDBG), or other funds (as funding becomes available to the City)	Housing Division, Neighborhood Services Division and Economic Development Department	Apply for funding as Notices of Funding Available (NOFAs) are released. Publicize available funding on the City's website as it becomes available.	During the previous Housing Element Cycle, the City made a total of 12 loans through its CalHOME-funded home rehabilitation program. These loans provided funds to low-income homeowners in need of health and safety

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
					repairs. The City will reinvest program income from this program during the current Housing Element Cycle and look into applying for additional CalHOME funding in future funding cycles. About 30 single-family homes are rehabilitated each year through the City's CDBG and other grant programs. In addition, the City has strongly encouraged rental housing owners and managers to re-invest and upgrade rental housing stock through the Rental Housing Inspection Program.
Action H.2.1.2	Continue the use of the City's Emergency Repair Program to provide health and safety repairs for households falling in the extremely low- , very low-, and low-income ranges. This is a grant for mobile home owners and single family homeowners to address immediate health and safety problems.	Community Development Block Grant (CDBG), or other funds (as funding becomes available to the City)	Housing Division, Neighborhood Services Division and Economic Development Department	The City will provide loans as funding becomes available each year.	The Emergency Repair Program, funded in part by the City's CDBG allocation, funded 12 home repairs during 2021. These grants funded roof repairs and other emergency health and safety repairs for extremely low-, very low-, and low-income owners of single-family and mobile homes.

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Action H.2.1.3	Support churches and service clubs who organize semi-annual community improvement days by providing information about the event at City Hall and on the City's website. Continue to make information available to the community about other revitalization programs including but not limited to Blight Busters, the Neighborhood Improvement Program, SMUD, and the Sacramento Tree Foundation with targeted marketing in areas of concentrated rehabilitation need and poverty to assist residents with the costs of repairs and reduce displacement risk.	Community Development Block Grant (CDBG), or other funds (as funding becomes available to the City)	Housing Division, Neighborhood Services Division and Economic Development Department	Ongoing, as community improvement days occur and new programs become available.	Many of the activities planned in 2021 were cancelled due to the pandemic. Below are the 2019 events: The City's Volunteer Program worked with local businesses and residents to provide residential improvement and revitalization programs to impacted neighborhoods. The City's neighborhood volunteer program repaired the exterior of 10 homes during the last planning cycle. The City's Volunteer Program organized residential improvement and revitalization, such as Re-build Day, Blight Busters, and other clean-up and beautification projects. These projects engaged volunteers from local businesses, residents, and church organizations. Over 2,500 trees have been planted in the City since 2016 in partnership with the Sacramento Tree Foundation, of which 80 percent have been

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
					in disadvantaged communities.
Action H.2.1.4	Continue to implement the Crime Prevention Through Environmental Design (CPTED) standards through the design review process.	General Fund	Planning and Building Departments	Implemented as part of the project processing and review of individual development applications.	The Planning Department has continuously used CPTED standards as part of the design review process for new entitlements and has applied these safety design standards to numerous use permits and design review applications at both staff-level review and projects that went before the City Council for approval. Additionally, the City continues to consult with the City's police department for further CPTED and other safety standards.
Policy H.2.2	Continue to implement the Folsom Boulevard Specific Plan.				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Action H.2.2.1	Continue to identify and implement opportunities on Folsom Boulevard for revitalization that will improve the Folsom Boulevard corridor, especially targeting the following:	General Fund	Housing Division, Neighborhood Services Division, and Economic Development Department	Scanning for opportunities and communicating with private property owners is ongoing. Discussions with special districts and agencies to be completed by the end of 2023.	The City continuously worked with both property owners and developers along Folsom Blvd. to identify development opportunities. The City has encouraged private owners to make frontage and landscape improvements along the boulevard. Additionally, one multifamily affordable housing project was approved on Folsom Blvd in 2021. However, the builder did not receive grant funding, but applies every year. Other actions the city is taking or has taken are as follows: • • invested $35 million to repave, add sidewalks, and beautify Folsom Blvd. • • acquired substandard buildings and properties and demolished blight on at least five sites. •
	- Underutilized, blighted, and/or vacant shopping centers on Folsom Boulevard to increase mixed-use and reuse in that corridor - Land banking where and when opportunities arise - Continue to reach out to private property owners to encourage a sale or development of their properties - Communicate with special districts on barriers they add to development in Rancho Cordova, through design guidelines or impact fees charged - Pursue grant funding where available to address environmental issues				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
					• working on the Civic Center project on an approximately 10-acre site that will include over $100 million in investment and will hopefully catalyze further development along the Boulevard. • funding a shopping cart removal service at a high level to ensure shopping carts are removed within hours. • funding a Homeless Outreach Navigator and created a Homeless Outreach Team within the Police Department to specifically address homeless issues on Folsom Blvd.

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
					• working with other government agency partners, such as the Los Rios Community College and Sacramento Metro Fire to aid in the development of sites they own on Folsom Blvd.
Policy H.2.3	Ensure that existing housing stock within the City is maintained and remains habitable in order to assist in meeting the housing needs of the community.				
Action H.2.3.1	Continue a proactive code enforcement program aimed at ensuring code compliance and general housing habitability. The Neighborhood Services Division will facilitate place-based revitalization by identifying high priority multifamily projects (in terms of law enforcement, code enforcement, and blight conditions) and will pursue the transformation or conversion of properties into uses that move the community into a more balanced housing market and that will not result in the loss of existing affordable housing units subsidized with federal, state, or local funds. The City will target these efforts in areas of concentrated poverty, overpayment, and rehabilitation need and will connect any residents displaced by the loss of subsidized affordable housing units with all other available affordable housing programs in the City. In addition, the City will continue implementing the Housing Stock Conservation Fee which is an annual fee collected on business licenses for multi-family properties.	CDBG Funds, General Fund	Housing Division	Annually identify properties. Continue to proactively inspect all rental property on a consistent basis, currently on a 3- or 7-year rotation depending on the number of units at a property.	Throughout the previous Housing Element period, the City's Rental Housing Inspection program has continued to strongly encourage rental housing property owners and managers to make necessary health and safety improvements, focusing on properties with the highest calls for service. The City has also been formulating ordinances that would include services of a community prosecutor and other fee-based site review to continue

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
					to bolster that encouragement. The City proactively inspects all apartment complexes every three years and rental properties of 1-8 units every seven years to ensure health and safety standards are met. Rental properties must repair any deficiencies, or they are ultimately not allowed to operate as rental properties.
Policy H.2.4	Preserve housing units at risk of losing affordability status for units that are subsidized with federal, state, or local funds.				
Action H.2.4.1	The City will continue to undertake the following programs and activities during the planning period of the Housing Element. The efforts listed here represent a varied strategy to mitigate potential loss of "at-risk" units due to conversion to market-rate units. These local efforts use existing City and local resources as well as additional resources from the public and private sector should they become available. o Monitor owners of at-risk projects on an ongoing annual basis, in coordination with other public and private entities to determine their interest in selling, prepaying, terminating, or continuing participation in a subsidy program. o Maintain and annually update the inventory of "at-risk" projects through the use of existing databases (e.g., California Housing Partnership Corporation (CHPC), HUD, State HCD, and California Tax Credit Allocation Committee).	Local Housing Trust Fund, CDBG	Housing Division and Neighborhood Services Division	Annually	The City has developed an affordable housing monitoring plan, and since 2018 has provided monitoring to City-funded affordable housing programs. To date, no units have converted to market rate. The City continues to monitor and to update its information regarding at-risk and other affordable housing units. The City continues to meet with nonprofit developers and other stakeholders

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	o Take all necessary steps to ensure that a project remains in or is transferred to an organization capable of maintaining affordability restrictions for the life of the project, including proactively ensuring notices to qualified entities, coordinating an action plan with qualified entities upon notice, and assisting with financial resources or supporting funding applications.				and look for funding to maintain existing and at-risk affordable units and develop new affordable housing. One project has been identified as at-risk needing new funding before 2023. This project is anticipated to submit a funding application to the City and State funding sources in 2022.
	o Ensure projects are monitored to see if they are subject to other State or local requirements regarding the provision of assistance to displaced tenants.				
	o Annually monitor local investment in projects that have been acquired by non-profit or for-profit entities to ensure that properties are well managed and maintained and are being operated in accordance with the City's property rehabilitation standards.				
	o Work with owners, tenants, and nonprofit organizations to assist in the nonprofit acquisition of at-risk projects to ensure long-term affordability of the development. Contact property owners annually. Identify nonprofit partners and pursue funding on a project basis.				
	o Annually meet with stakeholders and housing interests to participate and support, through letters and meetings and technical assistance, local legislators in federal, state, or local initiatives that address affordable housing preservation (e.g., support state or national legislation that addresses at-risk projects, support full funding of programs that provide resources for preservation activities).				
	o Use available financial resources to restructure federally assisted preservation projects, where feasible, in order to preserve and/or extend affordability.				
	o Annually identify funding sources for at-risk preservation and acquisition rehabilitation and pursue these funding sources at the federal state, or local levels to preserve at-risk units on a project-by-project basis.				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	o Coordinate with owners of expiring subsidies to ensure the required notices to tenants are sent out at 3 years, 6 months, and 12 months.				
Action H.2.4.2	In an effort to increase the supply of affordable housing to mitigate displacement risk for lower income households due to housing costs and limited supply, the City will work with interested individuals, nonprofit housing corporations, and for-profit developers to acquire rental housing projects that need rehabilitation, and transfer ownership, when necessary, to maintain the affordability of the units to low-income households.	General Fund, Local Housing Trust Fund and other subsidies as available	Housing Division	Meet annually with interested individuals, nonprofit housing corporations, and for-profit developers.	Throughout the Housing Element period, the City has continuously worked with both for-profit and non-profit developers to identify potential rehabilitation projects. City staff continually reviews the market for multifamily properties for sale that could be converted. Once a project is identified City staff will reach out to nonprofit and for-profit partners to analyze the opportunity and discuss further steps. The City has coordinated with Mercy Housing, Mutual Housing, Bridge Housing Urban Housing Communities, CalCHA, and others on this effort.
Action H.2.4.3	In an effort to preserve the affordable housing stock, the City will contact the manufactured housing and mobile-home park owners every five years to assess their interest in selling and inquire about their interest in redevelopment of the property.	General Fund, Local Housing Trust Fund, and other subsidies as available	Housing Division	Monitor owner interest in preserving manufactured housing and mobile-home parks every five years.	The City is currently discussing a Mobile Home Space Rent Stabilization Ordinance with Mobile Home Park Owners and Residents. These contacts will be maintained to assess interest in selling parks as appropriate.

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
GOAL H.3	**PROMOTE HOUSING DIVERSITY THROUGH PROVIDING A RANGE OF HIGH-QUALITY HOUSING CHOICES FOR THE COMMUNITY, INCLUDING SINGLE-FAMILY HOMES, DUPLEXES, TOWNHOMES/CONDOMINIUMS, LIVE-WORK UNITS, MIXED-USE, MULTI-FAMILY, EXECUTIVE HOUSING, AND MOBILE HOMES, THAT SERVE ALL HOUSEHOLDS, RANGING FROM THE WORKFORCE TO EXECUTIVES TO SENIORS AND OTHER SPECIAL NEEDS GROUPS.**				
Policy H.3.1	Ensure that neighborhoods are developed in a balanced, sustainable manner, avoiding over-concentration of affordable housing or oversized rental complexes and providing a range of housing prices and rents.				
Action H.3.1.2	The City has identified sites G-1, and G-2, in the Land Inventory (see Tables A-20, A-21, and A-22 in Appendix A), as appropriate to meet a portion of the City's moderate income RHNA. These sites are mixed-use sites and require a Conditional Use Permit (CUP) to allow for residential development in the OPMU zone. The CUP requirement ensures that the commercial uses are compatible with residential development. The sites already meet the location and environmental requirements of the CUP and therefore applications on these sites will be expedited. The City will monitor the development of these sites and, annually, and upon consultation with developers, and should the CUP process pose a constraint to the development of Housing, the City will either change the CUP requirement to a Limited Use permit or find an alternative site.	General Fund	Planning Department	Annually monitor the CUP process to ensure it does not pose a constraint to any of the sites listed.	The City is continuing to monitor these sites for potential housing development applications. One site owner contacted the City in 2021 to discuss converting an existing office to residential on an adjacent non-RHNA site, however market prices make such a project difficult or infeasible. The land use process was not identified as a significant barrier.

2021 Housing Element Annual Report

	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Action H.3.1.3	Update Sections 23.901.060 and 23.901.065 of the City's Zoning Code to comply with AB 68, AB 881, SB 13, AB 587, AB 671, and AB 670 (2019), including approving ADUs and Junior ADUs ministerially and amending development standards and restrictions on owner-occupancy, as well as decreasing the allowable parking requirements. Additionally, the City will promote ADUs on the City's website and at the planning counter and will target marketing in high resource areas to encourage construction of affordable housing types to facilitate mobility from low to high resource areas.	General Fund	Housing Division	By December 2021	The Zoning Code was amended in 2021 to comply with these new State laws. This Action is complete.
Action H.3.1.4	To assist the development of housing for lower income households on larger sites (over 10 acres), primarily in Specific Plans, the City will facilitate land divisions and lot line adjustments, resulting in parcel sizes that facilitate multifamily developments affordable to lower income households. The City will work with property owners and non-profit developers to target and market the availability of sites with the best potential for development. The City will offer the following incentives for the development of affordable housing which may include but is not limited to: • Streamlining and expediting the approval process for land division for projects that include affordable housing units, • Ministerial review of lot line adjustments, • Deferral of fees related to the subdivision for projects affordable to lower income households, • Providing technical assistance to acquire funding, and	A combination of General Fund, grants such as Community Development Block Grant (CDBG), future housing funds and other funds as they become available.	Housing Division	Develop the incentive program by December 2022, provide incentives throughout planning period, as projects are submitted.	No developers contacted the City in 2021 to discuss affordable housing projects on larger sites or the possibility of lot line adjustments to make a project more feasible. The incentives listed are currently being made available.

2021 Housing Element Annual Report

	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	• Modification of development requirements.				
Policy H.3.2	Provide a range of senior housing opportunities, including senior developments with single-story homes, independent living, assisted living, skilled nursing, and shared housing, and pursue opportunities and funding to convert existing apartment complexes to senior housing facilities.				
Policy H.3.3	Provide housing for the special needs populations, including housing accessible for persons with disabilities (including veterans as a primary target group), persons with developmental disabilities, large households, people experiencing homelessness, farmworkers, and single-parent households.				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Action H.3.3.1	Per Chapter 1.1.0 of the Zoning Code (Entitlements), the City will continue to provide a reasonable accommodation procedure in the Municipal Code to provide relief from the various land use or zoning rules, policies, practices, and/or procedures that may be necessary to ensure equal access to housing designed for, intended for occupancy by, or with supportive services for individuals with disabilities as required. The City will amend the Reasonable Accommodation ordinance to ensure compliance with State Law which will include, but is not limited to, review of the approval findings, removal of the associated fee, and review of the public hearing process. The City will also add the definition of family to the Zoning Code that does not limit family by size or blood relation. Additionally, the City will provide accessibility in housing for persons with physical and developmental disabilities by implementing state and federal requirements.	General Fund	Planning Department, Building Department, and Housing Division	Ongoing. Provide accessibility in housing for persons with disabilities as projects are processed through the Planning Department. Amend the Reasonable Accommodation Ordinance by December 2021.	The City has continuously worked to accommodate individuals that require reasonable accommodations consistent with the provision of the zoning code. During the previous Housing Element period, there were no formal reasonable application submittals. This program has been updated to comply with State law and the required changes have were made in 2021. The City has sponsored two supportive housing projects that are targeting groups that have a high percentage disabled population: seniors and homeless veterans. The Mather Veterans Village Phases are complete. The City received an application for a 4th phase of the Veterans Village in 2021 and is in discussions with Sacramento County to acquire adjacent sites potentially for additional housing development projects.

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Action H.3.3.2	Provide incentives for the development of single-room occupancy (SRO) and supportive housing units for identified special needs groups. Incentives may include fee deferrals, reduced parking requirements, density bonus, priority permit processing, technical assistance in project processing, and accessing funding for the special needs. SROs are allowed with a conditional use permit in the RD-20, RD-25, RD-30, and high density residential (HDR) zones. To ensure development standards do not constrain the development of SROs, the City will evaluate adopting development standards which may include: □ 24-hour on-site management □ Room limitation to single occupancy, with allowance for overnight guests □ Requirements for monthly tenancies □ Units must be 250–300 square feet in size and include kitchen or bathroom □ Parking ratio of one space per unit or less, and bicycle rack storage of one rack per 5 units The Planning Department and Housing Division will review development standards to see if they act as a constraint as SRO applications are submitted.	General Fund, Local Housing Trust Fund, CDBG	Housing Division and Planning Department	Implemented as part of project processing and review of individual development applications	The City has not seen market interest in developing SRO type housing except for student housing. The City did not receive any SRO applications or inquiries during this period. A 420 unit student housing SRO dormitory on an infill property within the City's central business district was approved in 2020.
Action H.3.3.3	Participate in regional coordination for homeless services and facilities. The City will continue to support existing facilities and programs (including financial support when appropriate and necessary) and will amend the Zoning Code to comply with Government Code Section 65583.(a)(4) and permit emergency shelters in the Light Industrial (M-1) zone by-right, without discretionary review and ensure that parking standards are sufficient to accommodate all staff, provided they do not require more parking for emergency shelters than other residential or commercial uses within the M-1 zone. The City	General Fund, State Emergency Shelter Program, HUD, other specialized funding	Housing Division	Participate in regional coordination on an annual basis. Amend the Zoning Code to allow emergency shelters in the M-1 by-right by May 2021 and develop managerial standards for homeless facilities, amend the Zoning Code to address transitional and supportive housing types consistent with State Law by July 2021.	The City participates in the Continuum of Care through Sacramento County. Transitional housing facilities receive special consideration during the entitlement process, including parking reductions and density bonuses. All transitional facilities are required to have a

2021 Housing Element Annual Report

	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	will also establish managerial standards for homeless facilities that will include the following: o Maximum number of beds; o Size and location of on-site waiting and intake areas; o Provision of on-site management; o Proximity to other shelters; o Length of stay; o Lighting; and o Security during hours when the shelter is open Additionally, the City will amend the Zoning Code to define transitional and supportive housing types and permit supportive housing in all residential zones subject to the same restrictions that apply to other residential uses of the same type in the same zone and allow supportive housing without discretionary review in all zones that allow multifamily housing or mixed-use development, including nonresidential zones, as applicable.				The City is the physical location of the Mather Community Campus. Sacramento County and Volunteers of America operate four separate programs at this location, including a transitional housing program, a veteran's transitional housing program, and a transitional age youth housing and services center. The Zoning Code was amended to comply with this action in 2021.
Action H.3.3.4	Per AB 101 (2019), amend the City's Zoning Ordinance to allow low-barrier navigation centers for the homeless, per Government Code 65660-65668.	General Fund	Housing Division	By January 2022	The Zoning Ordinance was amended in 2021 to comply with State law. This Action is complete.
Action H.3.3.5	To comply with the State Employee Housing Act (Health and Safety Code Sections 17021.5 and 17021.6), the City will review the Zoning Ordinance and amend to treat employee/farm worker housing that serves six or fewer persons as a single-family structure and permit this housing type in the same manner as other single-family structures of the same type in the same zone in all zones allowing single-family residential uses. Additionally, employee/farm	General Fund	Housing Division	By January 2022	The Zoning Ordinance was amended in 2021 to comply with State law. This Action is complete.

2021 Housing Element Annual Report

	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	worker housing consisting of no more than 12 units or 36 beds be treated as an agricultural use and permitted in the same manner as other agricultural uses in the same zone.				
Action H.3.3.6	The City will review development standards (building height, lot coverage, etc.), specifically to evaluate and modify as appropriate to achieve maximum densities.	General Fund	Housing Division	By January 2022, and annually thereafter.	The City acquired 5 sites along Folsom Blvd in the infill areas of the City in 2021. These sites may be considered for housing projects. In 2022 the City will evaluate its development standards in relation to these sites to determine if the existing development standards pose a constraint to achieving realistic project densities.
Policy H.3.4	The City will continue to promote equal housing opportunity for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, disability, familial status, source of income, or sexual orientation.				
Action H.3.4.1	The City will continue implementation of its Analysis of Impediments to Fair Housing Choice to Affirmatively Further Fair Housing as part of a regional effort in consortium with Sacramento County and the City of Citrus Heights. The Plan is part of a fair housing effort that the City began in fiscal year 2012–2013 and that was continued by the City's participation in the Sac Valley Fair Housing Collaborative's Analysis of Impediments to Fair Housing Choice (AI). In order to implement the Plan and continue to affirmatively further fair housing the City will take a variety of actions, including: - Implement Actions 1.4.1, 2.1.1, 2.1.3, 2.2.1, and 2.3.1 and the AI for a comprehensive and regional approach to affirmatively further fair	General Fund, CDBG funds	Housing Division	Continue to implement the City's AI on an ongoing basis and review progress twice within the planning period. Produce and distribute materials by December 2022, route fair housing complaints on a complaint basis. Refer to bullets for specific metrics and milestones.	The City has taken a regional approach by partnering with neighboring jurisdictions and organizations, such as Project Sentinel, Sacramento Self-help Housing, Legal Services of Northern California, and the Sacramento Housing and Redevelopment Agency. Through these partnerships, the City has been able to

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	housing including targeting community revitalization through place-based programs, enhancing mobility between neighborhoods, and developing strategies to reduce displacement risk for special needs groups and lower income households and overpayment (Actions 2.4.2 and 3.1.3) and facilitating affordable housing in high opportunity areas (Actions 1.2.1, 1.5.1, 1.5.3, and 1.5.4).				attain scale and leverage funding for robust Fair Housing enforcement. In 2021 the City evaluated additional ways to augment the fair housing services provided by Sacramento Self Help Housing via the Renter's Helpline and plans in 2022 to add additional languages to the fair housing materials, contact additional properties with marketing materials, and perform additional fair housing testing to respond to source of income and reasonable accommodation complaints frequently identified in 2021.
	- By March 2022, translate all fair housing materials into non-English languages that are prominent in Rancho Cordova; continue multi-lingual production, marketing, and distribution of fair housing materials as updates are made.				
	- As fair housing cases are received, refer intake to the City's Fair Housing Representative				
	- As potential fair housing cases are processed by the City, work with the complainant to file with the appropriate entities, including Sacramento Self-Help Housing, HUD, California Department of Fair Employment and Housing, Legal Services of Northern California, and the California Department of Consumer Affairs, etc.				
	- Work with fair housing providers such as Sacramento Self-Help Housing, HUD Office of Fair Housing and Equal Opportunity, and California Department of Fair Employment and Housing, on a quarterly basis to track fair housing complaints and identify areas of fair housing law in need of increased enforcement.				
	- As funding is available, annually apply for funding opportunities for neighborhoods of concentrated poverty such as rehabilitation, parks, and transit.				
	- Meet with the Folsom-Cordova Unified School District by June 2022 to develop strategies to attract and retain high quality teachers and promote diversity of staff and students to serve low-income areas. Additionally, the City will provide materials to affordable housing developers on standard teacher, and other lower-				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	income workers, salaries to encourage development of housing affordable to teachers.				
	- By June 2022, develop a targeted program to connect lower-income residents to homeownership opportunities in their community.				
	- By December 2022, develop a code enforcement process in which code enforcement staff will follow up with landlords to ensure repairs are made so that the unit can be occupied.				
	- Provide annual training on fair housing laws and discrimination at public meetings.				
	- Annually provide information to landlords and property managements on the benefits of accepting Housing Choice Vouchers, with a particular emphasis on marketing this information at rental properties in high resource areas, to facilitate housing choice mobility throughout the city.				
	- As part of the APR process in year 2025, evaluate the City's fair housing objectives and adjust as appropriate.				
GOAL H.4	**PURSUE SUSTAINABLE DEVELOPMENT AND ENERGY EFFICIENCY FOR NEW RESIDENTIAL DEVELOPMENT AND EXISTING HOUSING STOCK.**				
Policy H.4.1	Require energy efficiency in the design and construction of housing developments through implementation of the State Energy Conservation Standards (Title 24). The long-term economic and environmental benefits of energy efficiency shall be weighed against any increased initial costs of energy saving measures. Encourage sustainable development by reducing energy use.				

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
Action H.4.1.1	Partner with SMUD and PG&E to develop model programs for energy efficiency in new development without increasing costs to the homebuyer, and post and distribute information on currently available weatherization and energy conservation programs to residents and property owners as well as encourage participation in SMUD's photovoltaic (solar), energy efficiency, peak reduction, and other comparable programs. The City will distribute information through the City's newsletter, annual mailings in City utility billings, distribution of program information to community organizations and at municipal offices, and postings on the City's website. To best capture the ethnic diversity of the community, information will be available in the four major languages used in the community and other languages on demand.	General Fund	Planning and Building Departments	Ongoing, provide information as programs are available	The Planning Department and Building Department have continuously coordinated efforts to encourage energy efficiency in design. In 2021 the City began work on creating its first Climate Action Plan. This plan will be adopted in 2022 and includes significant collaboration with SMUD to identify potential mitigation strategies and actions to conserve energy and move to lower energy carbon sources.
GOAL H.5	**PURSUE PUBLIC AND PRIVATE RESOURCES AVAILABLE TO PROMOTE DIVERSE HOUSING OPPORTUNITIES, AND PARTICULARLY TO ASSIST IN THE CREATION OF WORKFORCE HOUSING AND SPECIAL NEEDS HOUSING.**				
Policy H.5.1	Partner with private organizations to encourage housing investment in the City.				
Action H.5.1.1	Continue to use the local housing trust to fund projects as funding is available. The housing trust is funded by for-profit and non-profit partners including major employers as well as funding from potential in-lieu fees and land grants from new developments. The City will explore other specific funding sources in an effort to support the local housing trust fund.	General Fund	Housing Division	Ongoing as funding is available. Explore possible funding sources by 2023.	The City has established a trust that is funded through the Housing Trust Development Impact Fees. The Affordable Housing Plans include an in-lieu fee for each market rate housing unit, land dedication, and land purchase options. The first residential fees under

2021 Housing Element Annual Report

	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
					adopted AHPs were collected in 2021. Nonresidential fees have continuously been collected and the City anticipates allocating all of the available funding to one of two affordable housing development projects in 2022.
Policy H.5.2	Pursue state and federal funding sources needed to achieve the desired range of housing choice.				
Action H.5.2.1	Pursue available and appropriate state and federal funding sources to support efforts to meet new construction needs of extremely low-, very low-, low-, and moderate-income households. Appropriate sources of funding will be determined on a case-by-case basis (see Funding Source and Time Frame that follow). The City will collaborate with nonprofit organizations and agencies, such as Northern California Construction Training, Community Housing Opportunity Corporation. Potential funding sources for this program will include the CDBG, HOME, and CalHome programs, the state Multifamily Housing Program, California Housing Finance Agency programs (such as HELP), tax-exempt bond financing, low-income housing tax credits, the Federal Home Loan Bank Affordable Housing Program, Affordable Housing Sustainable Communities Program, California Community Housing Agency, and various other HUD programs for special-needs groups.	Economic Development Initiations Grant (EDI) CDBG, HOME, CalHome, Multifamily Housing program, California Housing Finance Agency, HELP Program, HUD Program Section 221(d), Section 202 (elderly), Section 811 (persons with disabilities), Federal Home Loan Bank, Tax Exempt Bonds, Low-Income Housing Tax Credits (state and federal), and Housing Tax Increment Funds, Workforce Housing Reward Program Funds	Housing Division	Ongoing. The City will apply for all of the above loans and grants as Notices of Funding Available (NOFAs) are released from HCD	The City has continuously submitted applications for grants and other affordable housing funding, including: • HOME • CalHOME • UrbanLift • Infill grant • Affordable Housing Sustainable Communities • Tax Credits In 2021 City subsidized projects applied for or were awarded funding from CDLAC, and the Sacramento County HOME Consortium. Future projects in 2022 or beyond will apply to the funding programs

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
					listed above and/or others as appropriate.
Action H.5.2.2	Work with financial institutions serving Rancho Cordova to solicit interest in providing financing for extremely low-, very low-, low-, and moderate-income housing as part of their responsibilities under the Federal Community Reinvestment Act (CRA). The City will seek specific lending commitments to be used in conjunction with state and federal funds. The City will work with interested lending institutions.	CDBG, HOME and other funds (as funding becomes available to the City)	Housing Division	Meet with financial institutions serving Rancho Cordova regularly to determine what funding is available for lower-income households.	The City contacts financial institutions operating within the City to learn more about local CRA programs and discuss any issues or obstacles for using CRA funds in Rancho Cordova. City sponsored partners, such as the Cordova Community Council, also directly reach out to financial institutions for program sponsorships and grant funding. A number of banks already operate in the City, providing very

2021 Housing Element Annual Report

	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
					low-cost down payment programs , and mortgages to low- and moderate income households.
Policy H.5.3	Cooperate with affordable housing providers and provide regulatory and financial incentives to develop, acquire, rehabilitate, and/or manage housing affordable to extremely low-, very low-, low-, or moderate-income households.				
Action H.5.3.1	To promote the development of affordable housing, the City will market available incentives by advertising on the City's website, publishing brochures and making referrals. The incentives for developers may include: □ Financial assistance (based on availability of housing funds) □ Expedited development review □ Streamlined processing □ Density bonuses Given equal quality of design, priority will be given to projects containing units affordable to extremely low and very low-income households. The City will also establish a regular forum and meet biannually to learn from affordable housing developers on what incentives they need to develop in the City.	General Fund	Housing Division and Planning Department	Offer incentives as projects are processed through the Planning Department. Forum with nonprofit developers every two years.	The City has continuously worked to encourage development of affordable housing projects as funds and resources become available. The City will begin meeting with affordable housing developers will occur in 2022 to learn what additional incentives are needed.
Action H.5.3.2	The City will create multifamily design guidelines that will create a process for all multifamily residential projects to receive by-right approvals, including duplexes to midrise developments. Additionally, the City will establish a written policy	General Fund, SB 2 funding	Housing Division and Planning Department	December 2021	The Zoning Ordinance was amended in 2021 to incorporate the new by-right multifamily design guidelines and

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	Description	Funding Source:	Responsible Agency:	Time Frame:	Status/Steps Taken
	or procedure and other guidance as appropriate to specify the SB 35 streamlining approval process and standards for eligible projects, as set forth under Government Code Section 65913.4.				SB 25 approval process. This Action is complete.
Policy H.5.4	Require non-residential development to provide for the affordable housing needs generated or contributed to by their development.				
Action H.5.4.1	The City will continue to explore the option of updating the existing Housing Trust Development Impact Fee (fee for non-residential development that funds the Local Housing Trust Fund) to better address the needs and desires of City. The update to the fee program shall include the following: □ An updated nexus study addressing the extremely low-, very low- and low-income housing needs generated by non-residential development, including the cost to provide a variety of lower-income housing types; □ A fee structure based on defined types of non-residential development that are consistent with uses identified in the Zoning Code; □ A fee component to cover administrative costs; □ An annual inflationary adjustment; □ Exempt uses; and □ Allowed uses of the fee, including its use to provide pre-development, construction, and permanent financing for affordable multi-family projects and provide a homebuyer assistance program.	General Fund	Housing Division	Determine the viability of updating the Housing Trust Development Impact Fee by end of fiscal year 2021. Annually review fee to determine if additional updates are necessary to reflect changes in real estate market.	The City assessed the opportunity to update the Housing Trust Development Impact Fee but did not update the fee. It was determined that the current impact fee meets the desires of the City. The City is aware that Sacramento County is updating their fee with increased rates and an annual inflator. The City will continue to monitor that process as it annually explores whether the City's current impact fee should be updated. As of January 2022, there is approximately $300,000 in the trust fund and these funds will be allocated to a development project in 2022.

Jurisdiction	Rancho Cordova	
Reporting Year	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	05/15/2021 - 05/15/2029

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table A
Housing Development Applications Submitted

Project Identifier					Unit Types		Date Application Submitted	Proposed Units - Affordability by Household Incomes							Total Approved Units by Project	Total Disapproved Units by Project	Streamlining	Density Bonus Applications		Application Status	Notes
1					2	3	4	5							6	7	8	9	10		11	12
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Date Application Submitted+ (see instructions)	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low-Income Deed Restricted	Low-Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Total PROPOSED Units by Project	Total APPROVED Units by project	Total DISAPPROVED Units by Project	Was APPLICATION SUBMITTED Pursuant to GC 65913.4(b)? (SB 35 Streamlining)	Was a Density Bonus requested for this housing development?	Was a Density Bonus approved for this housing development?	Please indicate the status of the application.	Notes+
Summary Row: Start Data Entry Below								0	0	0	0	0	0	2399	2399	1659	0				
	072-0370-071	White Rock Road	Rio Del Oro Parcel 67 Design Review	DD10033	SFD	O	2/22/2021							444	444	444		No	No	No	Approved	
	067-1110-004	Montelena Village 5 South of Douglas Rd	Montelena Village 5 Major Design Review	DD10046	SFD	O	4/2/2021							59	59	59		No	No	No	Approved	
	067-1110-006	Montelena Village 7 South of Douglas Rd	Montelena Village 7 Major Design Review	DD10055	SFD	O	5/3/2021							152	152	152		No	No	No	Approved	
	067-0040-008	The Ranch Specific Plan Area	The Ranch Phase 1 Villages 4,5,6, and 9 Major Design Review	DD10060	SFD	O	7/19/2021							209	209	209		No	No	No	Approved	
	072-2360-002	Zinfandel Drive between Bear Hollow Drive and Spoto Drive	Stonecreek Village Tentative Subdivision Map, Major Design Review	DD10072	SFD	O	9/20/2021							128	128	128		No	No	No	Approved	
	072-2360-002	Zinfandel Drive between Bear Hollow Drive and Spoto Drive	Stonecreek Village Tentative Subdivision Map, Major Design Review	DD10072	5+	R	9/20/2021							151	151	151		No	No	No	Approved	
	072-0370-071	White Rock Road	Rio Del Oro Parcel 66 Major Design Review	DD10073	SFD	O	9/10/2021							132	132	132		No	No	No	Approved	
	068-0454-022	9847 Old Placerville Rd	9847 Old Placerville Ro	DD10036	SFD	O	4/30/2021							2	2	2		No	No	No	Approved	
	067-1110-002	Douglas Rd Montelena Drive	Montelena Village 3 Major Design Review	PLND-0921-0006	SFD	O	10/18/2021							125	125	125		No	No	No	Approved	
	067-0040-008	The Ranch SPA Village 8	The Ranch Village 8 Major Design Review	PLND-0921-0009	SFD	O	10/11/2021							130	130	130		No	No	No	Approved	
	067-0040-013	Arista Del Sol Subdivision	Arista Del Sol Major Design Review	PLND-1021-0011	SFD	O	11/1/2021							740	740			No	No	No	Pending	
	067-1110-001	Montelena Subdivision Villages 1 and 2	Montelena Villages 1 and 2 Major Design Review	PLND-1021-0012	SFD	O	11/24/2021							127	127	127		No	No	No	Approved	

Jurisdiction	Rancho Cordova	
Reporting Year	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	(01/15/2021 - 01/15/2029)

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table A2
Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier				Unit Types		Affordability by Household Incomes - Completed Entitlement								Affordability by Household Incomes - Building Permits								Affordability by Household Incomes - Certificates of Occupancy										Streamlining	Infill	Housing with Financial Assistance and/or Deed Restrictions		Housing without Financial Assistance or Deed Restrictions	Term of Affordability or Deed Restriction	Demolished/Destroyed Units			Density Bonus				Notes
1				2	3	4							5	6	7							8	9	10							11	12	13	14	15	16	17	18	19	20			21	22	23	24	25
Prior APN*	Current APN	Street Address	Project Name*	Local Jurisdiction Tracking ID*	Unit Category (SF,A,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Entitlement Date Approved	# of Units Issued Entitlements	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Building Permits Date Issued	# of Units Issued Building Permits	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Certificates of Occupancy or other forms of readiness (see instructions) Date Issued	# of Units Issued Certificates of Occupancy or other forms of readiness	How many of the units were Extremely Low Income?*	Was Project APPROVED using GC 65913.4(b)? (SB 35 Streamlining) Y/N	Infill Units? Y/N*	Assistance Programs for Each Development (may select multiple - see instructions)	Deed Restriction Type (may select multiple see instructions)	For units affordable without financial assistance or deed restrictions, explain how the locality determined the units were affordable (see instructions)	Term of Affordability or Deed Restriction (years) (if affordable in perpetuity enter 1000)*	Number of Demolished/Destroyed Units	Demolished or Destroyed Units	Demolished/Destroyed Units Owner or Renter	Total Density Bonus Applied to the Project (Percentage Increase in Total Allowable Units or Total Maximum Allowable Residential Gross Floor Area)	Number of Other Incentives, Concessions, Waivers, or Other Modifications Given to the Project (Excluding Parking Waivers or Parking Reductions)	List the incentives, concessions, waivers, and modifications (Excluding Parking Waivers or Parking Modifications)	Did the project receive a reduction or waiver of parking standards? (Y/N)	Notes*	
Summary Row: Start Data Entry Below						0	0	0	0	0	0	0	0	0	0	0	0	0	0	285	317	602	0	0	0	0	0	0	0	0	0	0	0	a					a		a						
	072-3420-057-0000	10879 PORTICO CI	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
	072-3420-013-0000	10891 PORTICO CI	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
	072-3420-046-0000	10893 PORTICO CI	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
	072-3420-021-0000	3640 SPOTO DR	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
	067-1230-027-0000	4236 ROANNE WY	Montelena Village 9 & 10		SFD	O									0						1		1/12/21	0									0	N	N			compared anticipated sales prices								
	067-1230-009-0000	4269 ABJLS WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		4/9/21	0									0	N	N			compared anticipated sales prices								
	067133000100000	6 SCHOLARLY WY	DANT AT GRANTLINE 208		SFD	O									0						1		7/27/21	0									0	N	N			compared anticipated sales prices								
	067133000100000	24 SCHOLARLY Way	GRANTLINE 208		SFD	O									0						1		9/9/2021	0									0	N	N			compared anticipated sales prices								
	067133002000000	36 SCHOLARLY WAY	DANT AT GRANTLINE 208		SFD	O									0						1		11/30/2021	0									0	N	N			compared anticipated sales prices								
	067-1230-040-0000	HERRINGBONE WY	DANT AT GRANTLINE 208		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
	067-1290-021-0000	HERRINGBONE WY	DANT AT GRANTLINE 208		SFD	O									0						1		3/24/21	0									0	N	N			compared anticipated sales prices								
	067-1280-049-0000	THORNTONHALL DR	DANT AT GRANTLINE 208		SFD	O									0						1		5/21/21	0									0	N	N			compared anticipated sales prices								
	067-1280-046-0000	THORNTONHALL DR	DANT AT GRANTLINE 208		SFD	O									0						1		5/3/21	0									0	N	N			compared anticipated sales prices								
	067-1290-032-0000	THORTONHALL DR	DANT AT GRANTLINE 208		SFD	O									0						1		6/30/21	0									0	N	N			compared anticipated sales prices								
	072-3420-009-0000	10883 PORTICO CI	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
	072-3420-016-0000	3660 SPOTO DR	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
	067133008000000	12089 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		10/13/2021	0									0	N	N			compared anticipated sales prices								
	067-1230-026-0000	4237 ROANNE WY	Montelena Village 9 & 10		SFD	O									0						1		1/12/21	0									0	N	N			compared anticipated sales prices								
	067-1230-030-0000	4230 ROANNE WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		2/9/21	0									0	N	N			compared anticipated sales prices								
	067-1230-032-0000	4226 ROANNE WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		3/12/21	0									0	N	N			compared anticipated sales prices								
	067133010120000	12097 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		10/13/2021	0									0	N	N			compared anticipated sales prices								
	067133009600000	12085 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		12/16/2021	0									0	N	N			compared anticipated sales prices								
	067133009800000	12073 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		12/16/2021	0									0	N	N			compared anticipated sales prices								
	067133011160000	12076 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		12/17/2021	0									0	N	N			compared anticipated sales prices								
067-1270-043-0000	63 BLUEBLANC WY	CHAN AT GRANTLINE 208		SFD	O									0						1		7/27/21	0									0	N	N			compared anticipated sales prices								
067-1270-073-0000	52 BLUEBLANC WY	CHAN AT GRANTLINE 208		SFD	O									0						1		7/27/21	0									0	N	N			compared anticipated sales prices								
067127006400000	12808 OPALINE CT	GRANTLINE 208		SFD	O									0						1		10/22/2021	0									0	N	N			compared anticipated sales prices								
067127006100000	12 BLUEBLANC WAY	CHAN AT GRANTLINE 208		SFD	O									0						1		11/30/2021	0									0	N	N			compared anticipated sales prices								
067127005700000	12803 BLUEBLANC WAY	CHAN AT GRANTLINE 208		SFD	O									0						1		12/13/2021	0									0	N	N			compared anticipated sales prices								
067-1270-089-0000	4 MONTBROOK WY	CHAN AT GRANTLINE 208		SFD	O									0						1		3/4/21	0									0	N	N			compared anticipated sales prices								
067-1270-088-0000	4 MONTBROOK WY	CHAN AT GRANTLINE 208		SFD	O									0						1		4/9/21	0									0	N	N			compared anticipated sales prices								
067-1270-077-0000	7 MONTBROOK WY	CHAN AT GRANTLINE 208		SFD	O									0						1		4/26/21	0									0	N	N			compared anticipated sales prices								
067-1250-078-0000	4 ACKERRICHER WY	DNWOOD AT DOUGLAS 98		SFD	O									0						1		2/4/21	0									0	N	N			compared anticipated sales prices								
067-1250-051-0000	4 ACKERRICHER WY	DNWOOD AT DOUGLAS 98		SFD	O									0						1		2/26/21	0									0	N	N			compared anticipated sales prices								
067-1250-076-0000	4 ACKERRICHER WY	DNWOOD AT DOUGLAS 98		SFD	O									0						1		2/4/21	0									0	N	N			compared anticipated sales prices								
072-3500-027-0000	TORTUGUERO WAY	RIO DEL ORO		SFD	O									0						1		11/19/2021	0									0	N	N			compared anticipated sales prices								
072-3420-012-0000	10889 PORTICO CI	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
072-3420-044-0000	10897 PORTICO CI	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
072-3420-051-0000	3664 SPOTO DR	RANDA AT STONE CREEK		SFD	O									0						1		2/19/21	0									0	N	N			compared anticipated sales prices								
067-1230-024-0000	4233 ROANNE WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		2/9/21	0									0	N	N			compared anticipated sales prices								
067-1230-031-0000	4228 ROANNE WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		2/9/21	0									0	N	N			compared anticipated sales prices								
067-1230-057-0000	857 MONTRON WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		2/9/21	0									0	N	N			compared anticipated sales prices								
067-1230-033-0000	4224 ROANNE WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		3/12/21	0									0	N	N			compared anticipated sales prices								
067-1230-035-0000	4220 ROANNE WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		3/12/21	0									0	N	N			compared anticipated sales prices								
067-1230-018-0000	4221 ROANNE WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		3/12/21	0									0	N	N			compared anticipated sales prices								
067-1230-012-0000	4215 ABJLS WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		4/9/21	0									0	N	N			compared anticipated sales prices								
067-1230-038-0000	4208 ABJLS WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		4/9/21	0									0	N	N			compared anticipated sales prices								
067-1230-040-0000	4206 ABJLS WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		5/5/21	0									0	N	N			compared anticipated sales prices								
067-1230-051-0000	845 MONTRON WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		5/5/21	0									0	N	N			compared anticipated sales prices								
067-1220-034-0000	3957 MIRCADO WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		6/4/21	0									0	N	N			compared anticipated sales prices								
067-1220-025-0000	3958 MIRCADO WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		6/4/21	0									0	N	N			compared anticipated sales prices								
067-1230-045-0000	3965 MIRCADO WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		6/25/21	0									0	N	N			compared anticipated sales prices								
067-1220-032-0000	3951 MIRCADO WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		6/25/21	0									0	N	N			compared anticipated sales prices								
067-1230-046-0000	837 MONTRON WY	ITELENA VILLAGE 9 AND 10		SFD	O									0						1		6/25/21	0									0	N	N			compared anticipated sales prices								
067-1250-075-0000	4 ACKERRICHER WY	DNWOOD AT DOUGLAS 98		SFD	O									0						1		2/4/21	0									0	N	N			compared anticipated sales prices								
067-1250-057-0000	4 ACKERRICHER WY	DNWOOD AT DOUGLAS 98		SFD	O									0						1		2/4/21	0									0	N	N			compared anticipated sales prices								
067-1250-053-0000	4 ACKERRICHER WY	DNWOOD AT DOUGLAS 98		SFD	O									0						1		2/26/21	0									0	N	N			compared anticipated sales prices								
067-1130-151-0000	3 GENTA BLOOM WY	DNWOOD AT DOUGLAS 98		SFD	O									0						1		4/27/21	0									0	N	N			compared anticipated sales prices								
067133007000000	3 BORDERLAND S DR	MONTELENA VILLAGE 7		SFD	O									0						1		10/4/2021	0									0	N	N			compared anticipated sales prices								
067133009900000	12091 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		10/13/2021	0									0	N	N			compared anticipated sales prices								
067133010080000	12092 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		10/13/2021	0									0	N	N			compared anticipated sales prices								
067133011100000	12086 AGEN CIR	MAGNOLIA VILLAGE 7		SFD	O									0						1		12/16/2021	0									0	N	N			compared anticipated sales prices								
067133011550000	12078 AGEN CIR	MAGNOLIA VILLAGE 7		SFD	O									0						1		12/17/2021	0									0	N	N			compared anticipated sales prices								
072350002260000	TORTUGUERO WAY	RIO DEL ORO		SFD	O									0						1		11/19/2021	0									0	N	N			compared anticipated sales prices								
067133010300000	12099 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		10/13/2021	0									0	N	N			compared anticipated sales prices								
067133010090000	12090 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		10/13/2021	0									0	N	N			compared anticipated sales prices								
067133009500000	12083 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		12/16/2021	0									0	N	N			compared anticipated sales prices								
067133011180000	12072 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		12/16/2021	0									0	N	N			compared anticipated sales prices								
067133009300000	12077 AGEN CIR	MONTELENA VILLAGE 7		SFD	O									0						1		12/17/2021	0									0	N	N			compared anticipated sales prices								
067-1250-001-0000	11 GLASS BEACH DR	DNOLIA AT DOUGLAS 98		SFD	O									0						1		9/28/21	0									0	N	N			compared anticipated sales prices								
067133000400000	0 SCHOLARLY WY	DANT AT GRANTLINE 208		SFD	O									0						1		7/27/21	0									0	N	N			compared anticipated sales prices								
067133000700000	12 SCHOLARLY WAY	GRANTLINE 208		SFD	O									0						1		8/6/2021	0									0	N	N			compared anticipated sales prices								
067134003700000	0 SCHOLARLY WAY	GRANTLINE 208		SFD	O									0						1		10/27/2021	0									0	N	N			compared anticipated sales prices								
067133001300000	36 SCHOLARLY Way	GRANTLINE 208		SFD	O									0						1		10/15/2021	0									0	N	N			compared anticipated sales prices								
067133005100000	44 SCHOLARLY Way	GRANTLINE 208		SFD	O									0						1		10/15/2021	0									0	N	N			compared anticipated sales prices								
067134003300000	71 SCHOLARLY WAY	DANT AT GRANTLINE 208		SFD	O									0						1		11/30/2021	0									0	N	N			compared anticipated sales prices								
067133002800000	18 SCHOLARLY WAY	GRANTLINE 208		SFD	O									0						1		11/5/2021	0									0	N	N			compared anticipated sales prices								
067-1280-027-0000	HERRINGBONE WY	Verdant @ Grantline 208		SFD	O									0						1		1/29/21	0									0	N	N			compared anticipated sales prices								
067-1280-038-0000	HERRINGBONE WY	Verdant @ Grantline 208		SFD	O									0						1		1/29/21	0									0	N	N			compared anticipated sales prices								
067-1280-024-0000	HERRINGBONE WY	DANT AT GRANTLINE 208		SFD	O									0						1		2/10/21	0									0	N	N			compared anticipated sales prices								
067-1280-041-0000	HERRINGBONE WY	DANT AT GRANTLINE 208		SFD	O									0						1		2/17/21	0									0	N	N			compared anticipated sales prices								
067-1280-021-0000	HERRINGBONE WY	DANT AT GRANTLINE 208		SFD	O									0						1		3/24/21	0									0	N	N			compared anticipated sales prices								
067-1290-025-0000	HERRINGBONE WY	DANT AT GRANTLINE 208		SFD	O									0						1		3/24/21	0									0	N	N			compared anticipated sales prices								
067-1290-014-0000	13851 ORRICK CT	DANT AT GRANTLINE 208		SFD	O									0						1		4/26/21	0									0	N	N			compared anticipated sales prices								
067-1290-051-0000	13851 ORRICK CT	DANT AT GRANTLINE 208		SFD	O									0						1		4/26/21	0									0	N	N			compared anticipated sales prices								
067-1280-050-0000	THORNTONHALL DR	DANT AT GRANTLINE 208		SFD	O									0						1		5/21/21	0									0	N	N			compared anticipated sales prices								
067-1280-052-0000	THORNTONHALL DR	DANT AT GRANTLINE 208		SFD	O									0						1		5/21/21	0									0	N	N			compared anticipated sales prices								
067-1270-042-0000	MONTBROOK WY	CHAN AT GRANTLINE 208		SFD	O									0						1		7/27/21	0									0	N	N			compared anticipated sales prices								
067127004400000	15 BLUEBLANC Way	GRANTLINE 208		SFD	O									0						1		8/6/2021	0									0	N	N			compared anticipated sales prices								
067127007200000	18 BLUEBLANC Way	GRANTLINE 208		SFD	O									0						1		8/16/2021	0									0	N	N			compared anticipated sales prices								
067127005000000	31 BLUEBLANC Way	GRANTLINE 208		SFD	O									0						1		9/9/2021	0									0	N	N			compared anticipated sales prices								
067127004700000	43 BLUEBLANC Way	GRANTLINE 208		SFD	O									0						1		9/9/2021	0									0	N	N			compared anticipated sales prices								
067117006400000	12819 OPALINE Ct	GRANTLINE 208		SFD	O									0						1		10/19/2021	0									0	N	N			compared anticipated sales prices								
067127005100000	28 BLUEBLANC WAY	GRANTLINE 208		SFD	O									0						1		11/30/2021	0									0	N	N			compared anticipated sales prices								
067127005000000	11 BLUEBLANC WAY	CHAN AT GRANTLINE 208		SFD	O									0						1		11/30/2021	0									0	N	N			compared anticipated sales prices								
067127009000000	12791 BLUEBLANC WAY	CHAN AT GRANTLINE 208		SFD	O									0						1		12/13/2021	0									0	N	N			compared anticipated sales prices								
067240002200000	18 SALT POINT WAY	NDOLIA @ DOUGLAS 98		SFD	O									0						1		11/22/2021	0									0	N	N			compared anticipated sales prices								
067240008800000	32 SALT POINT WAY	NDOLIA @ DOUGLAS 98		SFD	O									0						1		11/2/2021	0									0	N	N			compared anticipated sales prices								
067-1270-038-0000	4 KNIGHTSBROOK AV	CHAN AT GRANTLINE 208		SFD	O									0						1		2/1/21	0									0	N	N			compared anticipated sales prices								
067-1270-035-0000	7 MONTBROOK WY	CHAN AT GRANTLINE 208		SFD	O									0						1		2/1/21	0									0	N	N			compared anticipated sales prices								
067-1270-095-0000	2 MONTBROOK WY	CHAN AT GRANTLINE 208		SFD	O									0						1		2/17/21	0									0	N	N			compared anticipated sales prices								

Jurisdiction	Rancho Cordova
Reporting Year	2021 (Jan. 1 - Dec. 31)
Planning Period	6th Cycle (6/15/2021 - 12/15/2029)

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

| | | |

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Jurisdiction	Rancho Cordova
Reporting Year	2021 (Jan. 1 - Dec. 31)
Planning Period	6th Cycle 8/15/2021 - 8/15/2029

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

| | | |

Jurisdiction	Rancho Cordova
Reporting Year	2021 (Jan. 1 - Dec. 31)
Planning Period	6th Cycle (6/15/2021 - 6/15/2029)

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Note: "+" indicates an optional field
Cells in grey contain auto-calculation formulas

| | | |

Jurisdiction	Rancho Cordova
Reporting Year	2021 (Jan. 1 - Dec. 31)
Planning Period	6th Cycle 01/15/2021 - 10/15/2029

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

| | | |

Jurisdiction	Rancho Cordova	
Reporting Year	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	(01/2021 - 12/2029)

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

| | | |

Jurisdiction	Rancho Cordova	
Reporting Year	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	05/15/2021 - 05/15/2029

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

This table is auto-populated once you enter your jurisdiction name and current year data. Past year information comes from previous APRs.

Please contact HCD if your data is different than the material supplied here

Table B
Regional Housing Needs Allocation Progress
Permitted Units Issued by Affordability

		1	2									3	4
Income Level		**RHNA Allocation by Income Level**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**Total Units to Date (all years)**	**Total Remaining RHNA by Income Level**
Very Low	Deed Restricted	2,115	-	-	-	-	-	-	-	-	-	-	**2,115**
	Non-Deed Restricted		-	-	-	-	-	-	-	-	-		
Low	Deed Restricted	1,274	-	-	-	-	-	-	-	-	-	-	**1,274**
	Non-Deed Restricted		-	-	-	-	-	-	-	-	-		
Moderate	Deed Restricted	1,684	-	-	-	-	-	-	-	-	-	235	**1,449**
	Non-Deed Restricted		235	-	-	-	-	-	-	-	-		
Above Moderate		3,994	317	-	-	-	-	-	-	-	-	317	**3,677**
Total RHNA		**9,067**											
Total Units			**552**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**552**	**8,515**

Note: units serving extremely low-income households are included in the very low-income permitted units totals and must be reported as very low-income units.

Please note: For the last year of the 5th cycle, Table B will only include units that were permitted during the portion of the year that was in the 5th cycle. For the first year of the 6th cycle, Table B will include units that were permitted since the start of the planning period.

Please note: The APR form can only display data for one planning period. To view progress for a different planning period, you may login to HCD's online APR system, or contact HCD staff at apr@hcd.ca.gov.

Jurisdiction	Rancho Cordova	
Reporting Year	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	05/15/2021 - 05/15/2029

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table C

Sites Identified or Rezoned to Accommodate Shortfall Housing Need and No Net-Loss Law

Project Identifier				Date of Rezone	RHNA Shortfall by Household Income Category				Rezone Type	Sites Description							
1				2	3				4	5	6	7	8		9	10	11
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Date of Rezone	Very Low-Income	Low-Income	Moderate-Income	Above Moderate-Income	Rezone Type	Parcel Size (Acres)	General Plan Designation	Zoning	Minimum Density Allowed	Maximum Density Allowed	Realistic Capacity	Vacant/Nonvacant	Description of Existing Uses
Summary Row: Start Data Entry Below																	

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Jurisdiction	Rancho Cordova	
Reporting Year	2021	(Jan. 1 - Dec. 31)

Table D

Program Implementation Status pursuant to GC Section 65583

Housing Programs Progress Report
Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.

1	2	3	4
Name of Program	**Objective**	**Timeframe in H.E**	**Status of Program Implementation**
Action H.1.5.4	Amend the Zoning Ordinance to allow and promote the use of density bonuses to provide affordable housing consistent with current state law. The City will encourage developers in high resource areas to take advantage of the density bonus and promote affordable housing in these areas.	Ongoing as projects are processed through the Community Development Department. Comply with State Law by July 2022	The Zoning Ordinance has been updated to comply with State Law. Promotion of the density bonus opportunities is ongoing.

Action H.3.3.1	Per Chapter 1.1.0 of the zoning Code (Entitlements), the City will continue to provide a reasonable accommodation procedure in the Municipal Code to provide relief from the various land use or zoning rules, policies, practices, and/or procedures that may be necessary to ensure equal access to housing designed for, intended for occupany by, or with supportive services for individuals with disabilities as required. The City will amend the Reasonable Accommodation ordinance to ensure compliance with State Law which will include, but is not limited to, review of the approval findings, removal of the associated fee, and review of the public hearing process. The City will also add the definition of family to the Zoning Code that does not limit family by size or blood relation. Additionally, the City will provide accessibility in housing for persons with physical and developmental disabilities by implementing state and federal requirements.	Ongoing. Provide accessibility in housing for persons with disabilities as projects are processed through the Planning Department. Amend the Reasonable Accommodation Ordinance by December 2021	The Reasonable Accommodation Ordinance has been amended. The Reasonable Accommodation fee has been removed. Providing accessibility in housing for persons with disabilities is ongoing.

Action H.3.3.3	Participate in regional coordination for homeless services and facilities. The City will continue to support existing facilities and programs (including financial support when appropriate and necessary) and will amend the Zoning Code to comply with Government Code Section 65583.(a)(4) and permit emergency shelters in the Light Industrial (M-1) zone by-right, without discretionary review and ensure that parking standards are sufficient to accommodate all staff, provided they do not require more parking for emergency shelters than other residential or commercial uses within the M-1 zone. The City will also establish managerial standards for homeless facilities that will include the following: Maximum number beds; Size and location of on-site waiting and intake areas; Provision of on-site management; Proximity to other shelters; Length of stay; Lighting; and Security during hours when the shelter is open. Additional, the City will amend the Zoning Code to define transitional and supportive housing types and permit supportive housing in all residential zones subject to the same restrictions that apply to other residential uses of hte same type in the same zone and allow supportive housing without discretionary review in all zones that allow multifamily housing or mixed-use development, including nonresidential	Participate in regional coordination on an annual basis. Amend the Zoning Code to allow emergency shelters in the M-1 zone by-right by May 2021 and develop managerial standards for homeless facilities, amend the Zoning Code to address transitional and supportive housing types consistent with State Law by July 2021.	The Zoning Code has been amended to allow emergency shelters by-right in the M-1 zone and has been amended to address transitional and supportive housing types consistent with State Law. Regional coordination on homelessness is ongoing.
Action H.3.3.4	Per AB 101 (2019), amend the City's Zoning Ordinance to allow low-barrier navigation centers for the homeless, per Government Code 65660-65668.	By January 2022	The Zoning Ordinance has been amended to allow low-barrier navigation centers for the homeless per Government Code 65660-65558.

Action H.5.3.2	The City will create multifamily design guidelines that will create a process for all multifamily residential projects to receive by-right approvals, including duplexes to midrise developments. Additionally, the City will establish a written policy or procedure and other guidance as appropriate to specify the SB 35 streamlining approval process and standards for eligible projects, as set forth under Government Code Section 65913.4.	By December 2021	The City has adopted the multifamily design guidelines providing by-right approvals.

General Comments			

Jurisdiction	Rancho Cordova	
Reporting Period	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	05/15/2021 - 05/15/2029

ANNUAL ELEMENT PROGRESS REPORT

Housing Element Implementation

(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table E

Commercial Development Bonus Approved pursuant to GC Section 65915.7

Project Identifier				Units Constructed as Part of Agreement				Description of Commercial Development Bonus	Commercial Development Bonus Date Approved
1				2				3	4
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Very Low Income	Low Income	Moderate Income	Above Moderate Income	Description of Commercial Development Bonus	Commercial Development Bonus Date Approved
Summary Row: Start Data Entry Below									

Jurisdiction	Rancho Cordova	
Reporting Period	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	05/15/2021 - 05/15/2029

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table F

Units Rehabilitated, Preserved and Acquired for Alternative Adequate Sites pursuant to Government Code section 65583.1(c)

Please note this table is optional: The jurisdiction can use this table to report units that have been substantially rehabilitated, converted from non-affordable to affordable by acquisition, and preserved, including mobilehome park preservation, consistent with the standards set forth in Government Code section 65583.1, subdivision (c). Please note, motel, hotel, hostel rooms or other structures that are converted from non-residential to residential units pursuant to Government Code section 65583.1(c)(1)(D) are considered net-new housing units and must be reported in Table A2 and not reported in Table F.

Activity Type	Units that Do Not Count Towards RHNA+ Listed for Informational Purposes Only				Units that Count Towards RHNA + Note - Because the statutory requirements severely limit what can be counted, please contact HCD to receive the password that will enable you to populate these fields.				The description should adequately document how each unit complies with subsection (c) of Government Code Section 65583.1+
	Extremely Low-Income+	Very Low-Income+	Low-Income+	TOTAL UNITS+	Extremely Low-Income+	Very Low-Income+	Low-Income+	TOTAL UNITS+	
Rehabilitation Activity									
Preservation of Units At-Risk									
Acquisition of Units									
Mobilehome Park Preservation									
Total Units by Income									

Jurisdiction	Rancho Cordova	
Reporting Period	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	05/15/2021 - 05/15/2029

NOTE: This table must only be filled out if the housing element sites inventory contains a site which is or was owned by the reporting jurisdiction, and has been sold, leased, or otherwise disposed of during the reporting year.

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Table G
Locally Owned Lands Included in the Housing Element Sites Inventory that have been sold, leased, or otherwise disposed of

Project Identifier						
1				2	3	4
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Realistic Capacity Identified in the Housing Element	Entity to whom the site transferred	Intended Use for Site
Summary Row: Start Data Entry Below						

Jurisdiction	Rancho Cordova	
Reporting Period	2021	(Jan. 1 - Dec. 31)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
(CCR Title 25 §6202)

Table H
Locally Owned Surplus Sites

Parcel Identifier				Designation	Size	Notes
1	2	3	4	5	6	7
APN	**Street Address/Intersection**	**Existing Use**	**Number of Units**	**Surplus Designation**	**Parcel Size (in acres)**	**Notes**
Summary Row: Start Data Entry Below						

Jurisdiction	Rancho Cordova	
Reporting Year	2021	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	05/15/2021 - 05/15/2029

Building Permits Issued by Affordability Summary		
Income Level		**Current Year**
Very Low	Deed Restricted	0
	Non-Deed Restricted	0
Low	Deed Restricted	0
	Non-Deed Restricted	0
Moderate	Deed Restricted	0
	Non-Deed Restricted	235
Above Moderate		317
Total Units		**552**

Note: Units serving extremely low-income households are included in the very low-income permitted units totals

Units by Structure Type	**Entitled**	**Permitted**	**Completed**
SFA	0	0	0
SFD	0	552	0
2 to 4	0	0	0
5+	0	0	0
ADU	0	0	0
MH	0	0	0
Total	**0**	**552**	**0**

Housing Applications Summary	
Total Housing Applications Submitted:	12
Number of Proposed Units in All Applications Received:	2,399
Total Housing Units Approved:	1,659
Total Housing Units Disapproved:	0

Use of SB 35 Streamlining Provisions	
Number of Applications for Streamlining	0
Number of Streamlining Applications Approved	0
Total Developments Approved with Streamlining	0
Total Units Constructed with Streamlining	0

Units Constructed - SB 35 Streamlining Permits			
Income	**Rental**	**Ownership**	**Total**
Very Low	0	0	0
Low	0	0	0
Moderate	0	0	0
Above Moderate	0	0	0
Total	0	0	0

Cells in grey contain auto-calculation formulas

Jurisdiction	Rancho Cordova	
Reporting Year	2021	(Jan. 1 - Dec. 31)

ANNUAL ELEMENT PROGRESS REPORT
Local Early Action Planning (LEAP) Reporting
(CCR Title 25 §6202)

Please update the status of the proposed uses listed in the entity's application for funding and the corresponding impact on housing within the region or jurisdiction, as applicable, categorized based on the eligible uses specified in Section 50515.02 or 50515.03, as applicable.

Total Award Amount	$ 300,000.00	*Total award amount is auto-populated based on amounts entered in rows 15-26.*

Task	$ Amount Awarded	$ Cumulative Reimbursement Requested	Task Status	Other Funding	Notes
Integrated Development Planning	$95,000	$0	Other (Please Specify in Notes)	None	Not yet started
Climate Action Plan	$140,000	$0	In Progress	REAP	Project has begun, expected completion in Fall 2022.
Artist affordable housing feasibility and market study	$65,000	$0	Other (Please Specify in Notes)	None	Not yet started

Summary of entitlements, building permits, and certificates of occupancy (auto-populated from Table A2)

Completed Entitlement Issued by Affordability Summary		
Income Level		**Current Year**
Very Low	Deed Restricted	0
	Non-Deed Restricted	0
Low	Deed Restricted	0
	Non-Deed Restricted	0
Moderate	Deed Restricted	0
	Non-Deed Restricted	0
Above Moderate		0
Total Units		**0**

Building Permits Issued by Affordability Summary		
Income Level		**Current Year**
Very Low	Deed Restricted	0
	Non-Deed Restricted	0
Low	Deed Restricted	0
	Non-Deed Restricted	0
Moderate	Deed Restricted	0
	Non-Deed Restricted	235
Above Moderate		317
Total Units		**552**

Certificate of Occupancy Issued by Affordability Summary		
Income Level		**Current Year**
Very Low	Deed Restricted	0
	Non-Deed Restricted	0
Low	Deed Restricted	0
	Non-Deed Restricted	0
Moderate	Deed Restricted	0
	Non-Deed Restricted	0
Above Moderate		0
Total Units		**0**

Hazard Mitigation Plan Action Items

Action #	Description	Hazard(s) Addressed	Priority	Lead Agency /Department	Potential Funding Sources	Implementation Schedule	Implementation Status
1	Adoption of the LHMP into the Safety Element of the General Plan by reference or incorporation	All Hazards	High	Planning	Local	As soon as possible (by the end of 2018)	Completed Dec 2018
2	Sunrise Blvd Widening Kiefer to Jackson	Flooding	Med	Public Works	Fed, State, and Local	Within 5 years	Anticipate design start in 2022.
3	City Disaster Debris Management Plan	Multi-hazard	Med	Public Works	FEMA, Local	Completed	Completed
4	Transportation Interconnectivity; ensure interconnectivity and road standards are maintained for disaster preparedness/evacuations	Multi-hazard	High	Planning and Public Works	Local	On-going	On-going, through the subdivision review process
5	Intergovernmental Agreement between County and the City	Multi-hazard	Med	Public Works	FEMA, Local	MOU Completed	Completed
6	Land Use; as the City grows towards the south and east, cluster development and open space will be encouraged.	Multi-hazard	High	Planning	Local	On-going	On-going, through the Specific Plan and Special Planning area entitlements and subdivision reviews
7	Post disaster training for staff	Multi-hazard	High	Planning	Local	On-going	On-going, **Delayed due to Covid 19.**
8	Update/Maintain Emergency Operation Plan (EOPs). Assemble key City staff to form a team to update and maintain EOPs	Multi-hazard	Med	Public Works to include all City Depts.	Local	Next 5 years	City of Rancho Cordova is part of the Sacramento County Emergency Operation Area Plan (EOA). Staff attends training

Hazard Mitigation Plan Action Items

Action #	Description	Hazard(s) Addressed	Priority	Lead Agency /Department	Potential Funding Sources	Implementation Schedule	Implementation Status
							classes (On-Going). Delayed during Covid surges.
9	Increase Everbridge (Reverse 911 system to provide message alerts) Enrollment	Multi-hazard	Med	Public Information Officer	Local	FY 16/17	On-Going
10	Develop and maintain a database to track community vulnerability	Gas infrastructure and facilities	Med	IT Dept, Public Works; GIS, Police and Fire	Local	FY 17	Part of the Hazard Mitigation Plan
11	City Website and Social Media Emergency Information (ensure info regarding emergencies is available through the City website with link to the Multi-Jurisdiction HMP, press notification and social media)	Multi-hazard	High	Communication Dept.		FY 18; info on website evaluated once a year	Completed Link to Multi-Jurisdiction HMP on City Planning website page FY 18.
12	Building & Safety Division Disaster Inspector Training	Post disaster, Multi-hazard	Med	Building Division	Local	As needed	3 Building Inspectors are Certified
13	Landscape and Irrigation requirements for City owned facilities. (Develop a new drought policy	Drought	Med	Public Works, Facility Dept, Finance	Local	Next 5 years (deadline date of 2021)	Part of the LID development for new facilities. **New facilities comply with the drought tolerant landscape**.
14	Landscape Ordinance (Update and maintain proper landscaping practices)	Drought	High	Planning	Local	On-going	On-going, revised from turf to bark, rock, drought plants in residential front

Hazard Mitigation Plan Action Items

Action #	Description	Hazard(s) Addressed	Priority	Lead Agency /Department	Potential Funding Sources	Implementation Schedule	Implementation Status
							yards**. Public Works staff collects MELO Certificates from projects when complete.**
15	Impervious surface (restrict impervious surface)	Drought and flooding	Med	Planning	Local	On-going	On-going, front yard restrictions on driveway pavement
16	Porous pavement and vegetative buffers (encourage the use of porous pavement, vegetative buffers, and islands in large parking areas)	Drought and flooding	Med	Planning	Local	On-going	On-going
17	Storm Water Pump Station Infrastructure Upgrades (purchase 4 portable generators)	Flooding	High	Public Works	Local	Next 5 years (deadline date of 2021)	Analysis completed**. The City has applied for 2 FEMA grants in 2021. 1) Purchasing the 4 generators. 2) Identified Stormwater projects within the City, to correct.**
18	SB-5 Urban Level of Flood Protection	Flooding	High	Public Works	Local	Completed by 2017	Completed 2017
19	Channel Vegetation Management and Erosion Control	Flooding	Med	Public Works	Local	Next 5 years (deadline date of 2021)	On-going

Hazard Mitigation Plan Action Items

Action #	Description	Hazard(s) Addressed	Priority	Lead Agency /Department	Potential Funding Sources	Implementation Schedule	Implementation Status
20	Adoption of Hydromodification and Low Impact Development (LID) Standards	Flooding and Drought	Med	Public Works	Local	Next 5 years (deadline date of 2021)	Completed in 2018
21	Stormwater Capital Improvement Master Plan (identify existing flooding problems and analysis priority list of recommendations for capital improvement projects	Flooding	High	Public Works	Local	Next 5 years (deadline date of 2021)	Initiated in 2018. Completed in 2020. **Applied for FEMA grant to correct City stormwater issues from the Master Plan.**
22	Sunrise Blvd & Monier Circle Drainage Improvements	Flooding	High	Public Works	Local	Next 5 years (deadline date of 2021)	Budget and Design for Improvements are complete. (2020)
23	Roundabouts (Encourage round-abouts in place of traffic signals where appropriate)	High wind and storm (evacuation)	Med	Planning/Public Works	Local	On-going through development process	On-going. Reviewed under subdivision layout.

MEMORANDUM

ITEM 9.8.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

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

SUBJECT: **A RESOLUTION INCREASING THE ANNUAL STORMWATER UTILITY FEE FOR FISCAL YEAR 2022-2023**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would apply an inflationary adjustment to the Annual Stormwater Utility Fee increasing the rates by 4.2%. This fee is applied in the new development areas of the City.

BACKGROUND

During the formation of the Stormwater Utility Fee, Council approved a written report entitled "Rate Analysis Report", dated August 7, 2014 (the "Written Report") prepared by Harris & Associates. The report is filed with the City Clerk and available for public inspection. On September 2, 2014, following a properly noticed public hearing, Council adopted Ordinance No. 7-2014 that established the Stormwater Utility Fee by adding Chapter 15.11 to the Rancho Cordova Municipal Code. The Annual Stormwater Utility Fee is applied to new development projects in the City which are annexed into the City's Stormwater Utility Fee area.

As established by the Written Report and Municipal Code section 15.11.040, "Levy of charge for storm drainage services," the Stormwater Utility Fee may be increased annually by the annual change in the Consumer Price Index (CPI). The change in CPI from December 2021 to December 2022 is 4.2%. By adoption of this Resolution, the Stormwater Utility Fee rates for Fiscal Year 2022-2023 are hereby increased by 4.2% from $137.62 per Drainage Measurement Unit (DMU) to **$143.40** per DMU.

FISCAL IMPACT AND FUNDING SOURCE

Adoption of the Resolution would apply an inflationary adjustment to the Annual Stormwater Utility Fee increasing the rates by 4.2%. This fee is applied in the new development areas of the City.

ATTACHMENT(S)

1. Resolution

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, INCREASING THE ANNUAL STORMWATER UTILITY FEE FOR FISCAL YEAR 2022-2023

WHEREAS, Council approved a written report entitled, "Rate Analysis Report", dated August 7, 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"). The Written Report is on file in the office of the City Clerk and is available for public inspection; and

WHEREAS, on September 2, 2014, this Council adopted Ordinance No. 7-2014, adding Chapter 15.11 to the Rancho Cordova Municipal Code entitled “Annual Storm Water Utility Fee,” thereby establishing the Stormwater Utility Fee; and

WHEREAS, pursuant to Section 15.11.040 of the Municipal Code and the Written Report, the Stormwater Utility Fee may be increased annually 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; and

WHEREAS, the change in CPI from December 2021 to December 2022 for All Urban Consumers, for the San Francisco-Oakland-San Jose areas, as published by the United States Department of Labor, Bureau of Labor Statistics, is four and two-tenths percent (4.2%).

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA:

1. The foregoing recitals are true and correct.
2. The Stormwater Utility Fee rates for Fiscal Year 2022-2023 are hereby increased by 4.2% from $137.62 per Drainage Measurement Unit (DMU) to **$143.40** per DMU.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

MEMORANDUM

ITEM 9.9.

DATE: March 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 THE RANCH VILLAGE 8 SUBDIVISION NO. FM-2021-002-05 AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT CONTRACT NO. 2022-21 WITH K. HOVNANIAN AT JAEGER RANCH LLC.**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the resolution will authorize the City Manager to execute Subdivision Improvement Agreement Contract No. 2022-21, Attachment 1, guaranteeing the construction of public roads and utilities with K. Hovnanian at Jaeger Ranch, LLC. and the recording of the final subdivision map for The Ranch Village 8, creating 130 residentially zoned lots and one neighborhood park located north of Chrysanthy Blvd and east of Rancho Cordova Parkway.

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 Small Lot Tentative Map on January 6, 2020. A Development Agreement by the City and K. Hovnanian at Jaeger Ranch, LLC. was entered into on February 21, 2020 and recorded on May 1, 2021 in the Official Records of Sacramento County at Book 20200501, Page 0617. A copy of the final map, Attachment 3, and copy of the vicinity map, Attachment 4, are included with this letter.

Roads are offered for dedication with this subdivision. K. Hovnanian at Jaeger Ranch, LLC. has provided a performance and labor and material bond guaranteeing the construction of the public improvements. Wood Rodgers, Inc. 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 and Associates dated December 12, 2019.

There are no delinquent taxes against the property and the Tax Collector has so certified. The 2021/2022 estimated taxes have been secured with the Sacramento County Tax Collector.

FISCAL IMPACT AND FUNDING SOURCE

There is no Fiscal Impact.

ATTACHMENT(S)

1. Resolution
2. Subdivision Improvement Agreement
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 THE RANCH VILLAGE 8 SUBDIVISION NO. FM-2021-002-05, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SUBDIVISION IMPROVEMENT AGREEMENT CONTRACT NO. 2022-21 WITH K. HOVNANIAN AT JAEGER RANCH, LLC.

WHEREAS, the City Council approved the Small Lot Tentative Map on January 6, 2020 per Resolution No. 5-2020; 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.

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 The Ranch Village 8 Subdivision No. FM-2021-002-05 and does authorize the City Manager to execute Subdivision Improvement Agreement Contract No. 2022-21 with K. Hovnanian at Jaeger Ranch, 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 March 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Donald Terry, Mayor

_____
Stacy Leitner, CMC
City Clerk

SUBDIVISION IMPROVEMENT AGREEMENT

THE RANCH VILLAGE 8
SUBDIVISION NO. FM-2021-002-05

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 **K. Hovnanian at Jaeger Ranch, 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 **The Ranch Village 8, Subdivision No. FM-2021-002-05** 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. **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 8 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.

7. **Notice of Commencement of Work.** Principal shall notify the City Engineer in writing (email is sufficient) of the commencement of the work of improvements.

8. **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.

9. **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.

10. 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.

11. 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 **$5,154,306.00** (Five Million One Hundred Fifty-Four Thousand Three Hundred Six Dollars and Zero Cents). 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.

12. Improvement Security As Condition Precedent. The furnishing of the improvement security by Principal as required by paragraph 11 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.

13. 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 8 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.

14. 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.

15. 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.

16. 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.

17. 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.

18. 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 11 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.

19. 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.

21. 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.

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

23. 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: _____

K. Hovnanian at Jaeger Ranch, LLC.
California Limited Liability Company

_____
Tim Collison, Controller

Date: _____

ATTEST:

_____
Stacy Leitner, CMC, City Clerk

OWNER'S STATEMENT

THE UNDERSIGNED HEREBY CONSENT TO THE PREPARATION AND RECORDING OF THIS FINAL MAP OF THE RANCH VILLAGE 8.

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 **ALLEYS, BOULEVARD, DRIVE, PARKWAY AND WAYS, 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 AA AND THOSE STRIPS OF LAND 10.00 FEET IN WIDTH AND 12.50' IN WIDTH, LYING CONTIGUOUS TO THE PUBLIC STREETS AND ALLEYS SHOWN HEREON AND DESIGNATED "PUBLIC UTILITY EASEMENT" (PUE).

2. EASEMENTS FOR LANDSCAPING AND ALL APPURTENANCES PERTAINING THERETO LYING ON, OVER AND ACROSS LOT AA 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. 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 AA AND THOSE STRIPS OF LAND SHOWN HEREON AND DESIGNATED "PEDESTRIAN EASEMENT" (PE). AND LOT MM

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.

AG EHC II (HOV) CA 1 L.P.,
A DELAWARE LIMITED PARTNERSHIP

BY: ESSENTIAL HOUSING ASSET MANAGEMENT, LLC,
AN ARIZONA LIMITED LIABILITY COMPANY, ITS AUTHORIZED AGENT

BY: Steven S. Benson
STEVEN S. BENSON, ITS MANAGER

OPTIONEE STATEMENT

K. HOVNANIAN AT JAEGER RANCH, LLC, A CALIFORNIA LIMITED LIABILITY PARTNERSHIP, AS PURCHASER UNDER THAT CERTAIN MEMORANDUM OF OPTION AGREEMENT RECORDED JANUARY 28, 2022, AS DOCUMENT NO. 202201280735, OFFICIAL RECORDS OF SACRAMENTO COUNTY, DOES HEREBY JOIN IN AND CONSENT TO THE PREPARATION AND RECORDATION OF THE SUBDIVISION MAP AND TO ALL OFFERS OF DEDICATION, IF ANY, MADE IN THE OWNER'S STATEMENT.

K. HOVNANIAN AT JAEGER RANCH, LLC,
A CALIFORNIA LIMITED LIABILITY PARTNERSHIP

BY: Timothy J Collison NAME: Timothy J Collison

DATED: 2/22/2022 TITLE: Region Controller

SURVEYOR'S STATEMENT

THIS FINAL MAP 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 K. HOVNANIAN AT JAEGER RANCH, LLC, IN JANUARY 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 MARCH 31, 2024 AND THAT THE MONUMENTS ARE, OR WILL BE, SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

WOOD RODGERS, INC.

DENNIS L. BARBER
P.L.S. 8067

2/16/22
DATE

PROFESSIONAL LAND SURVEYOR — DENNIS L. BARBER — No. 8067 — STATE OF CALIFORNIA

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 Arizona)
COUNTY OF Maricopa) SS

ON 21 DAY OF February, 2022 BEFORE ME, Jaime Marie Adams, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED Steven S. Benson 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 Arizona THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND AND OFFICIAL SEAL: Jaime Marie Adams

PRINTED NAME: Jaime Marie Adams

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

MY COMMISSION EXPIRES: 07/01/2025

MY COMMISSION No.: 607030

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 Placer) SS

ON 22nd DAY OF February, 2022 BEFORE ME, Stephanie Gonzalez, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED Timothy J. Collison 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: Stephanie Gonzalez

PRINTED NAME: Stephanie Gonzalez

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

MY COMMISSION EXPIRES: 10/18/2025

MY COMMISSION No.: #2378898

CITY ENGINEER'S STATEMENT

I HEREBY STATE THAT I HAVE EXAMINED THIS FINAL MAP OF THE RANCH VILLAGE 8 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.

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

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

DATED: _____

CITY SURVEYOR'S STATEMENT

I HEREBY STATE THAT I AM SATISFIED THAT THIS FINAL MAP OF THE RANCH VILLAGE 8 IS TECHNICALLY CORRECT.

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

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

DATED: _____

CITY CLERK'S STATEMENT

I HEREBY STATE THAT THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HAS APPROVED THIS FINAL MAP OF THE RANCH VILLAGE 8 AND HAS ACCEPTED, SUBJECT TO IMPROVEMENTS, ON BEHALF OF THE PUBLIC, ALL EASEMENTS AND RIGHTS OF WAY SHOWN HEREON, AND DO HEREBY CERTIFY THE ABANDONMENTS LISTED HEREON.

BY: _____ DATED: _____
CITY CLERK, CITY OF RANCHO CORDOVA

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 DOCUMENT NO.: _____
COUNTY OF SACRAMENTO

BY: _____ FEE: $ _____
DEPUTY RECORDER

FINAL MAP OF THE RANCH VILLAGE 8

SUBDIVISION NO. FM-2021-002-05

BEING ALL OF LOT 5 OF THAT CERTAIN LARGE LOT FINAL MAP OF THE RANCH FILED FOR RECORD IN BOOK 429 OF MAPS, AT PAGE 8, SACRAMENTO COUNTY RECORDS CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

MARCH 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

1296.006

BOUNDARY SHEET

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 SUBDIVISION IS 18.07± ACRES, CONSISTING OF 130 RESIDENTIAL LOTS, 2 LANDSCAPE LOTS AND ONE NEIGHBORHOOD PARK.
5. 5/8" REBAR CAPPED "LS 8067" WILL BE SET AT ALL REAR LOT CORNERS NOT ABUTTING ALLEYS, 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). REAR LOT CORNERS ABUTTING ALLEYS WILL BE SET WITH A 1" BRASS DISK STAMPED "LS 8067" AT A 1.00 FOOT PROJECTION OF THE PROPERTY LINE ONTO THE ALLEY ASPHALT. 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 AA IS FOR LANDSCAPING, PEDESTRIAN AND PUBLIC UTILITY EASEMENT PURPOSES AND SHALL BE GRANTED TO THE CITY OF RANCHO CORDOVA.
7. LOT MM IS FOR PRIVATE LANDSCAPING AND PUBLIC PEDESTRIAN EASEMENT, AND SHALL BE GRANTED TO AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
8. LOT T IS FOR A NEIGHBORHOOD PARK AND SHALL BE GRANTED TO CORDOVA RECREATION AND PARK DISTRICT.
9. NOTICE IS HEREBY GIVEN THAT THE KIEFER LANDFILL IS LOCATED APPROXIMATELY 2 MILES SOUTHEASTERLY OF THIS SUBDIVISION.
10. PURSUANT TO SECTION 66434(g) OF THE GOVERNMENT CODE, THE FOLLOWING PUBLIC IRREVOCABLE OFFER OF DEDICATION FOR RIGHT-OF-WAY (IOD) AND PUBLIC UTILITY EASEMENT (PUE) ARE HEREBY ABANDONED:

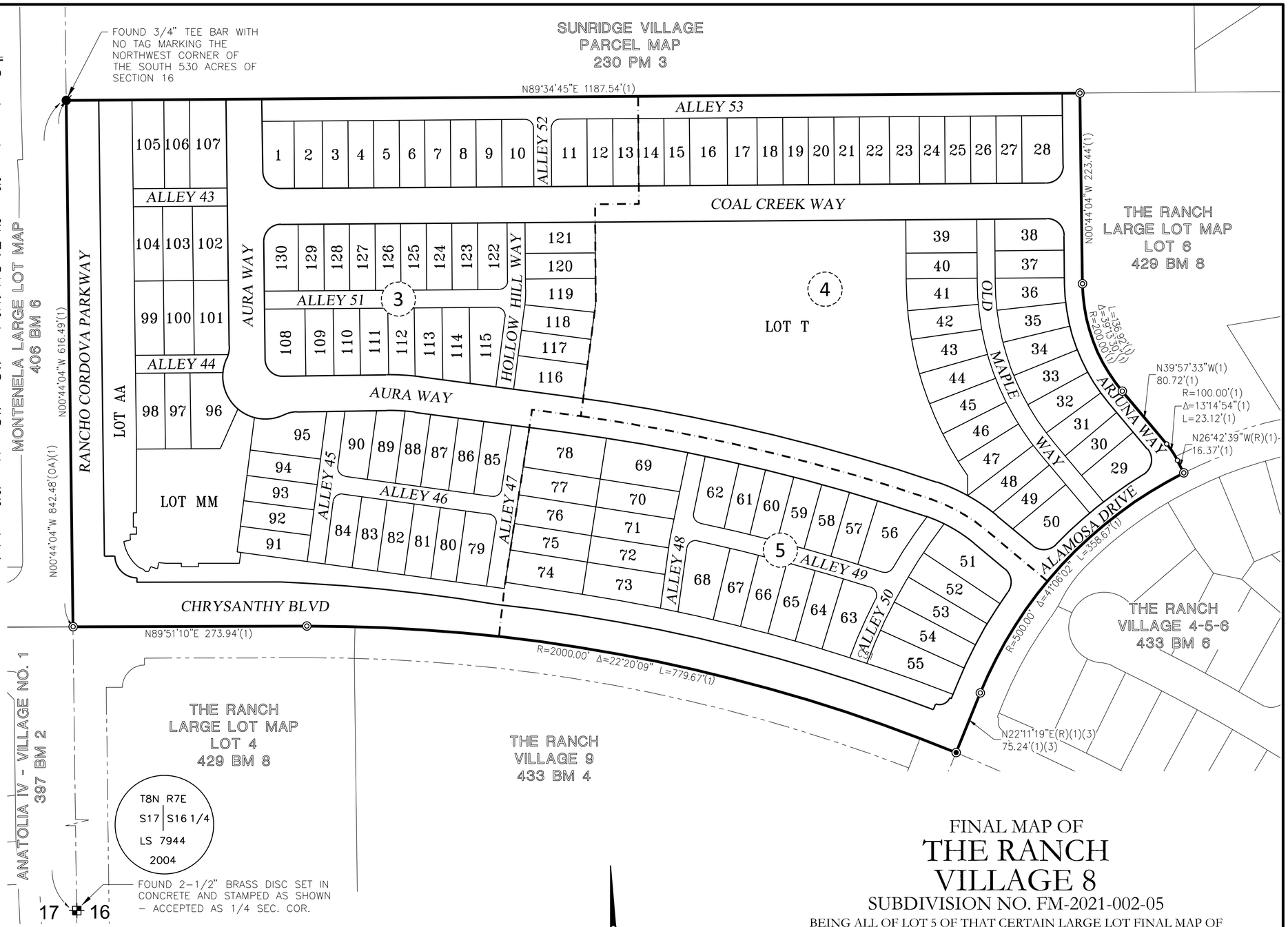
10.1. ALL OF THAT IOD DEPICTED ON THAT MAP ENTITLED "LARGE LOT FINAL MAP OF THE RANCH" FILED IN BOOK 429 OF MAPS, AT PAGE 8, SACRAMENTO COUNTY RECORDS, LYING WITHIN THE BOUNDARY OF THIS MAP AND NOT SHOWN HEREON.

10.2. ALL OF THAT PUE DEPICTED ON THAT MAP ENTITLED "LARGE LOT FINAL MAP OF THE RANCH" FILED IN BOOK 429 OF MAPS, AT PAGE 8, SACRAMENTO COUNTY RECORDS, LYING WITHIN THE BOUNDARY OF THIS MAP AND NOT SHOWN HEREON.

LEGEND

o	DIMENSION POINT
●	FOUND MONUMENT AS NOTED
◉	FOUND 3/4" IRON PIPE WITH CAP STAMPED "LS 8067"
✚	FOUND SECTION QUARTER CORNER AS NOTED
◎	SET 3/4" IRON PIPE WITH CAP STAMPED "LS 8067"
℄	CENTERLINE
(6)	SHEET NUMBER REFERENCE

CSD-1	SACRAMENTO COUNTY SANITATION DISTRICT 1		
IOD	IRREVOCABLE OFFER OF DEDICATION		
L=	ARC LENGTH		
LE	LANDSCAPE EASEMENT		
NTS	NOT TO SCALE		
PE	PEDESTRIAN EASEMENT	(R)	RADIAL BEARING
PUE	PUBLIC UTILITY EASEMENT	SF	SQUARE FEET
(OA)	OVERALL	BM	BOOK OF MAPS



REFERENCES:

(1) 429 BM 8 – LARGE LOT MAP OF THE RANCH

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, ZONE 2, NAD 83, EPOCH DATE 1997.30, AS MEASURED BETWEEN NGS STATION "SHELDON", 1ST ORDER AND NGS STATION "G 1414", 1ST ORDER. SAID BEARING IS NORTH 72°44'09" EAST. DISTANCES SHOWN ARE GROUND BASED.

0 40 80 160

SCALE:1"= 80'

FINAL MAP OF

THE RANCH VILLAGE 8

SUBDIVISION NO. FM-2021-002-05

BEING ALL OF LOT 5 OF THAT CERTAIN LARGE LOT FINAL MAP OF THE RANCH FILED FOR RECORD IN BOOK 429 OF MAPS, AT PAGE 8, SACRAMENTO COUNTY RECORDS CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

MARCH 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

SUNRIDGE VILLAGE PARCEL MAP - 230 PM 3

MONTENELA
LARGE LOT MAP
406 BM 6

RANCHO CORDOVA PARKWAY

ALLEY 53

ALLEY 52

ALLEY 43

COAL CREEK WAY

AURA WAY

ALLEY 51

HOLLOW HILL WAY

ALLEY 44

ALLEY 45

ALLEY 46

ALLEY 47

CHRYSANTHY BLVD

LOT AA
1.00± ACRES
(LE/PE/PUE)

LOT MM
18,601± SF
(PE, PRIVATE LANDSCAPE LOT)

LOT T
2.22± ACRES
(PARK)

43' WIDE CSD-1 EASEMENT PER 20070529 OR 0437

60' WIDE CSD-1 EASEMENT PER 20070529 OR 0437

SEE DETAIL 'A' THIS SHEET

SEE DETAIL 'B' THIS SHEET

SEE SHEET 4

SEE SHEET 5

SEE SHEET 5

DETAIL 'A'
SCALE: 1"=10'

DETAIL 'B'
SCALE: 1"=10'

0 20 40 80
SCALE:1"= 40'

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	10.00'	90°00'00"	15.71'
C2	20.00'	89°40'51"	31.30'
C3	20.00'	90°19'09"	31.53'
C4	50.00'	140°18'32"	122.44'
C5	50.00'	25°22'14"	22.14'
C6	50.00'	40°44'39"	35.56'
C7	35.00'	25°15'04"	15.43'
C8	20.00'	90°00'00"	31.42'
C9	271.00'	8°15'04"	39.03'
C10	271.00'	0°34'20"	2.71'
C11	271.00'	6°34'22"	31.09'
C12	271.00'	1°06'22"	5.23'
C13	250.00'	8°15'04"	36.00'
C14	229.00'	8°15'04"	32.98'
C15	229.00'	5°21'46"	21.43'
C16	229.00'	2°53'18"	11.54'
C17	2289.00'	0°29'15"	19.47'
C18	10.00'	90°00'00"	15.71'
C19	10.00'	97°55'54"	17.09'
C20	160.00'	1°24'02"	3.91'
C21	10.00'	89°37'51"	15.64'
C22	10.00'	90°22'09"	15.77'
C23	10.00'	88°55'31"	15.52'
C24	10.00'	91°04'29"	15.90'
C25	33.00'	11°49'06"	6.81'
C26	40.50'	11°26'43"	8.09'
C27	12.50'	42°26'20"	9.26'
C28	48.50'	42°50'21"	36.26'
C29	40.50'	10°00'00"	7.07'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L10	N90°00'00"W	20.00'
L11	N00°00'00"E	4.01'
L12	N90°00'00"W	19.50'
L13	N13°33'17"E	7.50'
L14	N25°00'00"E	6.26'
L15	N89°51'22"E	3.54'
L16	N80°00'00"E	8.00'
L17	N90°00'00"E	7.49'
L18	N00°00'00"E	8.16'
L19	N90°00'00"W	3.58'
L20	N00°00'00"E	17.00'
L21	N90°00'00"E	3.58'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N0°25'15"W	110.50'
L2	N89°34'45"E	131.10'
L3	N89°34'45"E	131.17'
L4	N0°25'15"W	99.14'
L5	N7°30'40"E	116.72'
L6	N89°16'08"E(R)	11.97'
L7	N7°24'45"E	12.64'
L8	N90°00'00"W	47.98'
L9	N00°00'00"E	4.01'

RADIAL TABLE – THIS SHEET ONLY	
NO.	BEARING
R1	S40°07'25"W(R)
R2	S14°45'11"W(R)
R3	N4°37'22"E(R)
R4	N0°10'04"W(R)
R5	N6°30'41"E(R)
R6	S82°58'52"W(R)
R7	N52°59'11"E(R)
R8	S81°24'53"W(R)

FINAL MAP OF
THE RANCH VILLAGE 8

SUBDIVISION NO. FM-2021-002-05

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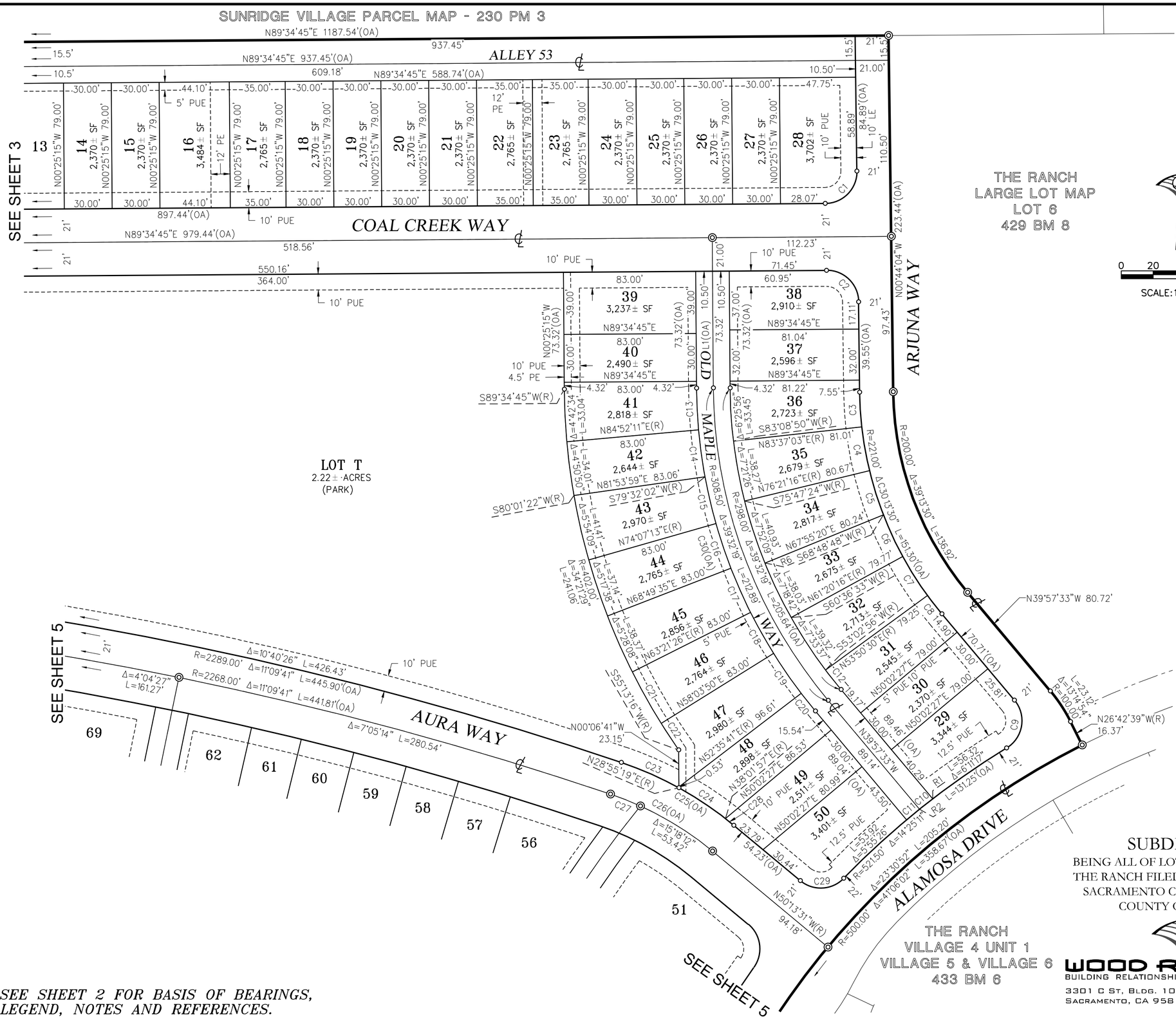
MARCH 2022

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Sacramento, CA 95816 Fax 916.341.7767

Sheet 3 of 6

1296.006

SUNRIDGE VILLAGE PARCEL MAP - 230 PM 3



CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	20.00'	90°18'49"	31.53'
C2	20.00'	89°41'11"	31.31'
C3	221.00'	5°38'53"	21.79'
C4	221.00'	7°15'47"	28.02'
C5	221.00'	7°32'28"	29.09'
C6	221.00'	7°28'31"	28.83'
C7	221.00'	7°29'47"	28.91'
C8	221.00'	3°48'03"	14.66'
C9	20.00'	98°29'45"	34.38'
C10	521.50'	1°09'15"	10.50'
C11	521.50'	1°09'13"	10.50'
C12	298.00'	3°00'30"	15.65'
C13	319.00'	4°42'34"	26.22'
C14	319.00'	5°20'09"	29.71'
C15	319.00'	5°24'50"	30.14'
C16	319.00'	5°17'38"	29.47'
C17	319.00'	5°28'08"	30.45'
C18	319.00'	5°17'37"	29.47'
C19	319.00'	5°28'08"	30.45'
C20	319.00'	2°33'15"	14.22'
C21	402.00'	5°17'37"	37.14'
C22	402.00'	2°50'34"	19.95'
C23	221.00'	10°14'58"	39.53'
C24	221.00'	9°06'39"	35.14'
C25	221.00'	21°06'08"	81.40'
C26	200.00'	21°06'08"	73.66'
C27	200.00'	5°47'56"	20.24'
C28	221.00'	1°44'31"	6.72'
C29	20.00'	85°39'28"	29.90'
C30	319.00'	39°32'19"	220.13'

RADIAL TABLE – THIS SHEET ONLY	
NO.	BEARING
R1	N37°39'05"W(R)
R2	N38°48'20"W(R)
R3	S68°55'41"W(R)
R4	S66°41'56"W(R)
R5	S76°00'15"W(R)
R6	S67°55'15"W(R)

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N0°25'15"W	94.32'
L2	N0°06'41"W	23.69'

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

FINAL MAP OF

THE RANCH VILLAGE 8

SUBDIVISION NO. FM-2021-002-05

BEING ALL OF LOT 5 OF THAT CERTAIN LARGE LOT FINAL MAP OF THE RANCH FILED FOR RECORD IN BOOK 429 OF MAPS, AT PAGE 8, SACRAMENTO COUNTY RECORDS CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

MARCH 2022

WOOD RODGERS
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Sacramento, CA 95816 Fax 916.341.7767

RADIAL TABLE – THIS SHEET ONLY	
NO.	BEARING
R1	N12°53'07"E(R)
R2	N12°53'13"E(R)

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N22°11'19"E	18.71'

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	2247.00'	1°20'42"	52.75'
C2	2247.00'	0°16'04"	10.50'
C3	2247.00'	1°01'57"	40.49'
C4	2247.00'	0°52'01"	34.00'
C5	179.00'	21°06'08"	65.93'
C6	179.00'	4°09'09"	12.97'
C7	179.00'	16°56'59"	52.95'
C8	179.00'	0°39'19"	2.05'
C9	179.00'	3°29'50"	10.93'
C10	179.00'	3°26'49"	10.77'
C11	179.00'	13°30'10"	42.18'
C12	20.00'	85°43'02"	29.92'
C13	529.00'	1°45'45"	16.27'
C14	529.00'	3°02'13"	28.04'
C15	529.00'	3°02'05"	28.02'
C16	529.00'	3°17'32"	30.40'
C17	529.00'	2°24'18"	22.20'
C18	13.00'	88°46'28"	20.14'
C19	10.00'	77°21'04"	13.50'
C20	2169.00'	0°48'04"	30.32'
C21	2169.00'	0°52'01"	32.82'
C22	2169.00'	0°45'47"	28.88'
C23	2169.00'	5°50'46"	221.31'
C24	10.00'	89°27'39"	15.61'
C25	10.00'	94°18'54"	16.46'
C26	2148.00'	1°03'29"	39.67'
C27	2148.00'	0°55'01"	34.38'
C28	2148.00'	0°53'18"	33.30'
C29	2148.00'	5°36'51"	210.48'
C30	10.00'	99°16'28"	17.33'
C31	2062.00'	0°17'31"	10.51'
C32	2062.00'	0°17'33"	10.53'
C33	2247.00'	0°48'57"	32.00'
C34	2169.00'	0°48'51"	30.82'
C35	636.50'	16°50'49"	187.15'

SEE SHEET 3

SEE SHEET 3

SEE SHEET 4

LOT T

AURA WAY

ALLEY 47

ALLEY 48

ALLEY 49

ALLEY 50

ALAMOSA DRIVE

CHRYSANTHY BLVD

LOT 4A

37' IOD FOR RIGHT-OF-WAY PER (1)

12.5' PUE PER (1)

THE RANCH
LARGE LOT MAP
LOT 3
429 BM 8

THE RANCH
VILLAGE 4 UNIT 1
VILLAGE 5 & VILLAGE 6
433 BM 6

THE RANCH
VILLAGE 9
433 BM 4

DETAIL 'A'
SCALE: 1"=1'

DETAIL 'B'
SCALE: 1"=10'

SCALE:1"= 40'

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

FINAL MAP OF
THE RANCH
VILLAGE 8

SUBDIVISION NO. FM-2021-002-05

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MARCH 2022

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Sheet 5 of 6

1296.006

ADDITIONAL INFORMATION SHEET

NOTES:

ADDITIONAL INFORMATION SHOWN ON THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT INTENDED TO AFFECT RECORD TITLE INTEREST PER STATE OF CALIFORNIA GOVERNMENT CODE SECTION 66434.2 (THE SUBDIVISION MAP ACT).

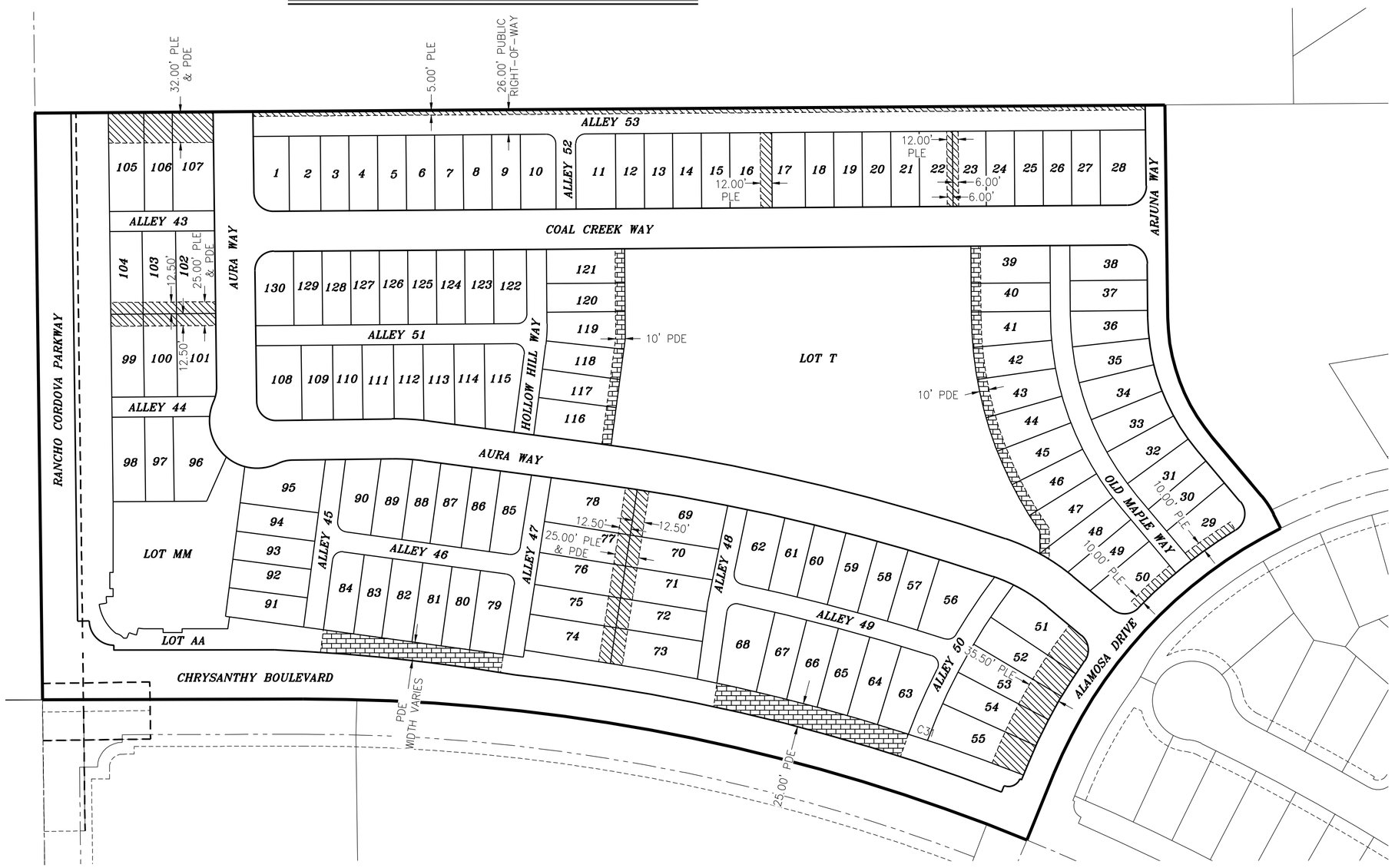
A. PRIVATE DRAINAGE EASEMENTS ACROSS LOT AA, LOTS 39 THROUGH 48, LOTS 69 THROUGH 78, LOTS 99 THROUGH 107 AND LOTS 116 THROUGH 121, INCLUSIVE, AS SHOWN ON THIS SHEET, SHALL BE RESERVED AS EASEMENTS TO THE HOMEOWNER'S ASSOCIATION UPON CONVEYANCE OF SAID LOTS.

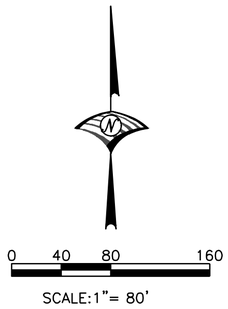
B. A PRIVATE LANDSCAPE EASEMENT ACROSS ALLEY 53, AS SHOWN ON THIS SHEET, SHALL BE GRANTED BY THE CITY, AS AN EASEMENT TO THE HOMEOWNER'S ASSOCIATION, FOLLOWING ACCEPTANCE OF RIGHT-OF-WAY AND IMPROVEMENTS.

C. PRIVATE LANDSCAPE EASEMENTS ACROSS LOTS 16, 22, 23, 29, 50, 51, 52, 53, 54, 55, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 99, 100, 101, 102, 103, 104, 105, 106 AND 107, AS SHOWN ON THIS SHEET, SHALL BE GRANTED AS EASEMENTS TO THE HOMEOWNER'S ASSOCIATION UPON SALE OF SAID LOTS.

LEGEND (THIS SHEET ONLY):

HOA	HOMEOWNER'S ASSOCIATION
PDE	PRIVATE DRAINAGE EASEMENT
PLE	PRIVATE LANDSCAPE EASEMENT
	PRIVATE LANDSCAPE EASEMENT (PLE) TO HOA
	PRIVATE DRAINAGE EASEMENT (PDE) TO HOA





FINAL MAP OF

THE RANCH VILLAGE 8

SUBDIVISION NO. FM-2021-002-05

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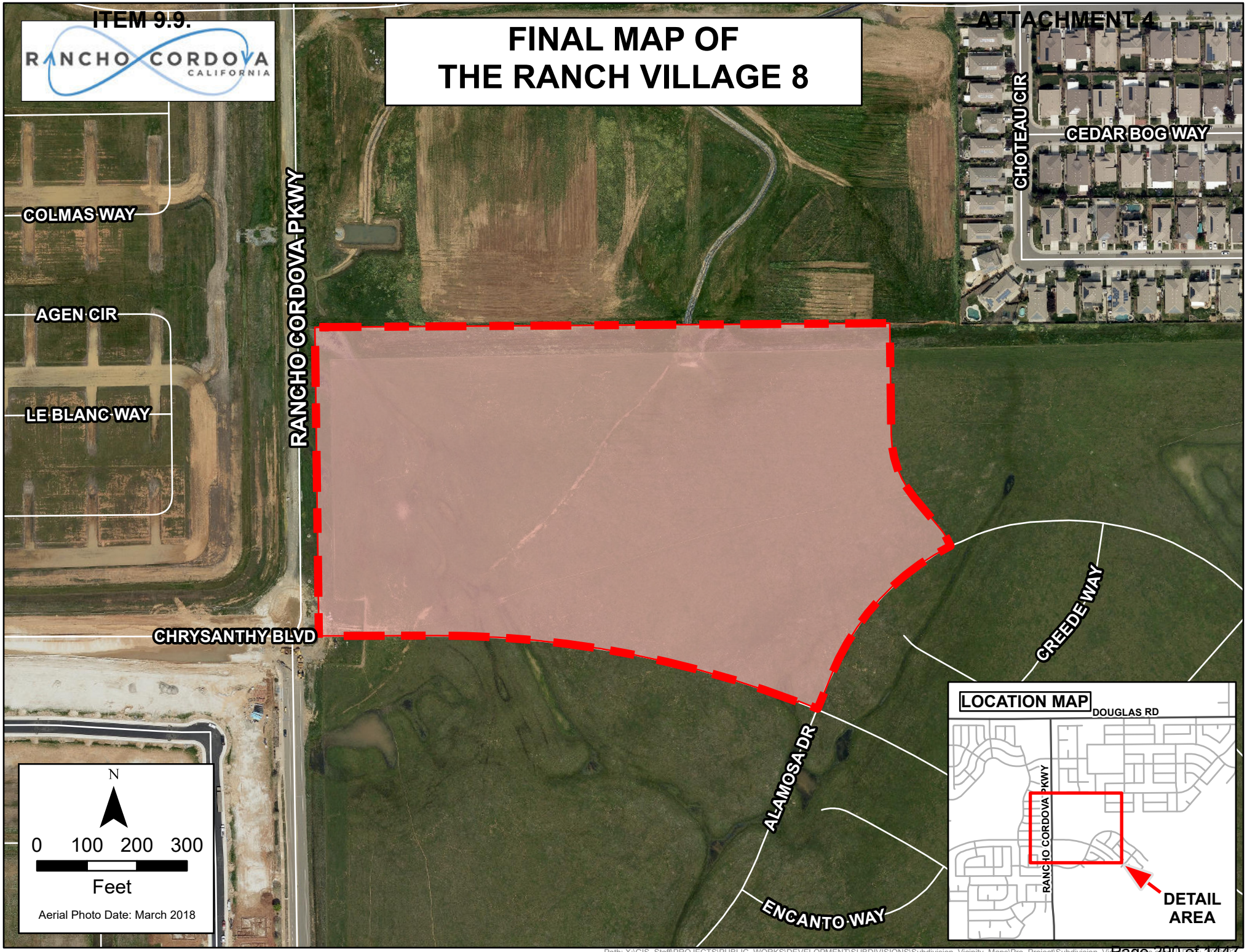
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Sacramento, CA 95816 Fax 916.341.7767

Sheet 6 of 6

1296.006

FINAL MAP OF THE RANCH VILLAGE 8



Path: X:\GIS_Staff\PROJECTS\PUBLIC_WORKS\DEVELOPMENT\SUBDIVISIONS\Subdivision_Vicinity_Maps\Pro_Project\Subdivision_Vi

MEMORANDUM

ITEM 9.10.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Elizabeth Sparkman, Community Development Director
Dalia Fadl, Principal Engineer

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 GRANTLINE 220 PROJECT**

RECOMMENDATION

Adopt the Resolution designating a time and place for hearing protests in connection with the annual Stormwater Utility Fee for the Grantline 220 project.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would declare the Council's intention to impose an annual Stormwater Utility Fee for the maintenance of the storm drainage and flood protection system in the Grantline 220 project and set a public hearing for April 4, 2022 on the matter.

BACKGROUND

The Council previously approved the Grantline 220 project with a condition of approval which requires that the property owner fund operation and maintenance of the storm drainage system. This condition will be satisfied by participation in the City's Stormwater Utility Fee for storm drainage and flood protection services which is the subject of this action.

Previously, projects were required to annex to the County's Stormwater Utility. Since the City has taken over drainage maintenance and operations services from the County, it was necessary to establish the Stormwater Utility District to fund drainage services to ensure compliance with new state and federal laws and regulations. The Stormwater Utility Fee was established on September 2, 2014, by Ordinance No. 7-2014.

DISCUSSION

The property owners have submitted a petition and waiver for the City to institute the proceedings to impose the Stormwater Utility Fee. By signing the petition and to expedite the completion of the proceedings, the Petitioner has waived all notices of hearings and all published notices regarding the establishment of the stormwater utility fee, notices of election, and applicable waiting periods (Attachment 5). The Grantline 220 project is being annexed into

the Stormwater Utility Fee (Attachment 3). 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 improvements.

A “Rate Analysis Report” was adopted on August 7, 2014, by Resolution No. 103-2014. The report calculated the Fiscal Year 2014/2015 maximum annual Stormwater Utility Fee amount for each parcel proportionate to the estimated stormwater runoff for each parcel. The maximum annual fee increases 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 2021-2022 is provided in Attachment 4.

In accordance with Article XIII D, the “Procedures for the Conduct of a Protest Hearing and Balloting Relating to a Proposed Stormwater Utility Fee” as set forth in Attachment 2 and incorporated herein by reference (the “Procedures”).

The Resolution (Attachment 1) sets the public hearing at 5:30 p.m., or as soon thereafter as possible, on April 4, 2022, as the time and date for a hearing on the matters set forth therein and directs the City Clerk to give notice of the public hearing. Notice of the Public Hearing will be published in the Grapevine Independent as required by law.

FISCAL IMPACT AND FUNDING SOURCE

There is no fiscal impact to the general fund. The annual stormwater utility fees collected are deposited into an enterprise fund specifically for the maintenance of the storm drainage and flood protection system.

ATTACHMENT(S)

1. Resolution
2. Exhibit A to the Resolution
3. Annexation Map
4. Stormwater Utility Fee- Rate Sheet FY21-22
5. Petition w Waivers

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFONIA, DESIGNATING A TIME AND PLACE FOR HEARING PROTESTS IN CONNECTION WITH THE ANNUAL STORMWATER UTILITY FEE FOR THE GRANTLINE 220 PROJECT

WHEREAS, the Stormwater Utility Fee was established on September 2, 2014 by Ordinance No. 7-2014 to fund services and facilities furnished by the City in connection with its storm drain system. The Proposed Stormwater Utility Fee may be billed through the County Utility Billing Service (CUBS) as part of the consolidated utility bill or may be collected on the County of Sacramento tax roll, commencing in Fiscal Year 2021-2022, in the same manner, by the same persons, and at the same time as, together with and not separately from, the general taxes of the City in the manner prescribed by Sections 5471 et seq. of the California Health and Safety Code; and

WHEREAS, this Council has caused a written report entitled, "Rate Analysis Report", dated August 7, 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 Proposed Stormwater Utility Fee is applicable (collectively, the "Identified Parcels") and the amount of the Proposed 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, Article XIII D of the California Constitution and the Proposition 218 Omnibus Implementation Act (Government Code Section 53750, et seq.) (the "Implementation Act") imposes certain procedural and substantive requirements relating to the imposition of property-related fees and charges (as defined in Article XIII D), such as the Proposed Stormwater Utility Fee, including the requirement to conduct a protest hearing and balloting for consideration of the Proposed Stormwater Utility Fee. In accordance with Article XIII D and the Implementation Act, the City Council hereby approves the "Procedures for the Conduct of a Protest Hearing and Balloting Relating to a Proposed Stormwater Utility Fee" as set forth in Exhibit A and incorporated herein by reference (the "Procedures"); and

WHEREAS this Council has received petitions and waivers from the owners of 100% of the area of land proposed to be included in the Proposed Stormwater Utility Fee in which the Petitioner has waived all notices of hearings and all published notices regarding the establishment of the stormwater utility fee, notices of election, and applicable waiting periods.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA:

1. The foregoing recitals are true and correct and incorporated herein.

2. Notice is hereby given that the City Council designates Monday, April 4, 2022, at the hour of 5:30 p.m., in the Council Chambers, City Hall, 2729 Prospect Park Drive, Rancho Cordova, California, as the time and place for a public hearing on

the above-described written report and protests or objections to the imposition of the proposed Stormwater Utility Fee.

At the above-described public hearing, all interested persons shall be afforded the opportunity to hear and be heard, and the City Council shall consider all protests against the Proposed Stormwater Utility Fee. If written protests against the Stormwater Utility Fee are presented by a majority of owners of the Identified Parcels, the City shall not impose the Proposed Stormwater Utility Fee. In the absence of a majority protest, the City Council may submit the Proposed Stormwater Utility Fee to a vote of the property owners in accordance with Article XIII D of the California Constitution.

3. The City Clerk is hereby authorized and directed to give notice of the above described public hearing in accordance with law and the Procedures.

4. Reference is hereby made to the Written Report described in Section 2 hereof, which is on file in the office of the City Clerk, for a full and detailed description of the Proposed Stormwater Utility Fee upon parcels of land within the City.

5. The City Council hereby designates Elizabeth Sparkman, Community Development Director, telephone number, (916) 851-8714 to answer inquiries regarding the public hearing, protest proceedings and procedural or technical matters.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

EXHIBIT "A"

PROCEDURES FOR THE CONDUCT OF A PROTEST HEARING AND VOTE RELATING TO A PROPOSED STORMWATER UTILITY FEE

The following Procedures have been adopted by the City Council of the City of Rancho Cordova for the purpose of conducting a protest hearing required by Article XIII D of the California Constitution for consideration of the imposition of a proposed Stormwater Utility Fee *(the "Proposed* Stormwater Utility Fee").

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A. Written Report Page 1

B. Notice of the Public Hearing on the Proposed Stormwater Utility Fee Page 1

C. Eligibility to File a Protest Page 2

D. Submission of Written Protests Page 3

E. Conduct of the Public Hearing; Determination of A Majority Protest Page 3

F. Conduct Property Owner Vote; Determination of a Majority Protest Page 4

A. Written Report

The City shall cause to be prepared a written report ("Written Report"), which shall contain a list of all parcels to which the Proposed Stormwater Utility Fee will apply (the "Identified Parcels") and the amount of the Proposed Stormwater Utility Fee for each Identified Parcel for Fiscal Year 2020-2021.

The Written Report shall be placed on file in the office of the City Clerk prior to the mailing of the Notice of Public Hearing on the Proposed Stormwater Utility Fee and shall remain available for public inspection.

B. Notice of the Public Hearing on the Proposed Stormwater Utility Fee

Notice of the public hearing on the Proposed Stormwater Utility Fee shall be sent, postage prepaid, by first class mail at least forty-five (45) days prior to the date set for the public hearing to the Record Owner of each Identified Parcel. The forty-five (45) day requirement may be waived with the unanimous consent of the property owners.

"Record Owner" means the owner of an Identified Parcel whose name and address appears on the last acramento County equalized secured property tax assessment roll (the "Assessment Roll"), or in the case of any public entity, the State of California, or the United States, means the representative of that public entity at the address of that entity known to the City.

Notices shall be mailed to the Record Owners of the Identified Parcels, addressed to the names and addresses as they appear on the Assessment Roll, and, in the case of any public entity, the State of California, or the United States, addressed to the public entity at the address of that entity known to the City. In addition, notices shall be mailed to owners of the Identified Parcels, addressed to the names and addresses known to the City Clerk, if different than shown on the Assessment Roll.

Each mailed notice shall contain all of the following:

· A reference to filing of the Written Report;

· A reference to the proposed ordinance imposing the Proposed Stormwater Utility Fee and providing for the collection of the Fee on the County tax roll;

· The amount of the Proposed Stormwater Utility Fee to be imposed upon the Identified Parcel covered by the notice;

· The basis upon which the amount of the Proposed Stormwater Utility Fee was calculated;

· The reason for the Proposed Stormwater Utility Fee;

· A statement that the Proposed Stormwater Utility Fee may be collected as part of a consolidated utility bill via CUBS or on the County of Sacramento tax roll each year, commencing with Fiscal Year 2021-2022.

· The effect of a majority protest; and

· The date, time and location of a public hearing on the Proposed Stormwater Utility Fee.

The City Clerk, or the designee of the City Clerk, may certify the proper mailing of notices by an affidavit, which shall constitute conclusive proof of mailing in the absence of fraud.

Failure of any person to receive notice shall not invalidate the proceedings.

Notice of the filing of the Written Report and the public hearing shall be published once a week for two successive weeks in the Grapevine Independent, with the first publication at least fourteen (14) days prior to the date of the public hearing, and with at least five (5) days intervening between the first and second publications. The published notice may be waived by unanimous consent of the property owners.

C. Eligibility to File a Protest

The Assessment Roll shall be presumptive evidence of ownership of an Identified Parcel for protest purposes.

If the owner of any Identified Parcel is not shown on the Assessment Roll, such owner may file a protest for such parcel by filing with the City Clerk a proxy from the Record Owner in a form satisfactory to the City Attorney or evidence of ownership satisfactory to the City Attorney. Any such proxy or evidence must be received by the City Clerk prior to the conclusion of the public hearing.

When an Identified Parcel is held by a partnership, as community property, in joint tenancy, or as a tenancy in common, any partner, spouse, joint tenant, or tenant in common, as the case may be, may file a protest for such parcel.

An executor, administrator, or guardian may file a protest for an Identified Parcel on behalf of the estate it represents. If such representative is shown on the Assessment Roll as paying taxes and assessments levied against the parcel, that fact shall establish the right of such representative to file the protest. If such representative is not shown on the Assessment Roll, the representative must file with the City Clerk written documentation satisfactory to the City Attorney establishing the legal representation. Any such documentation must be filed with the City Clerk prior to the conclusion of the public hearing.

When an Identified Parcel is held by a corporation or unincorporated association, a protest may be filed by any person authorized in writing by the board of directors or trustees or other managing body thereof to take such actions. The corporation or unincorporated association must file with the City Clerk written authorization satisfactory to the City Attorney. Any such written authorization must be filed with the City Clerk prior to the conclusion of the public hearing.

D. Submission of Written Protests

Written protests may be mailed (via U.S. mail) to the City Clerk at City Hall or delivered in person to the City Clerk at City Hall or at the public hearing.

No protests delivered via e-mail will be counted for purposes of determining whether a majority protest exists, but the City Council may, in its discretion, consider such protests in making determinations regarding the Proposed Stormwater Utility Fee

Each written protest must identify the property covered by the protest and be signed.

No protest received after the close of the public hearing shall be counted in determining the existence of a majority protest. The last pick up by the City Clerk of protests mailed or delivered to City Hall will occur at 5:30 p.m. on the date scheduled for the public hearing. To ensure that protests which are mailed or delivered to City Hall are received by the City Clerk prior to the close of the public hearing, such protests must be received by the City Clerk at City Hall prior to 5:30 p.m. on the date scheduled for the public hearing. The City Clerk shall endorse on each written protest the date it is filed with the City. The City Clerk shall identify any protests which are received after the close of the public hearing.

Written protests may be withdrawn in writing at any time before the conclusion of the public hearing by the person who submitted the written protest.

For purposes of determining whether a majority protest exists, only one protest for each Identified Parcel will be counted.

All written protests shall be considered public records.

E. Conduct of the Public Hearing; Determinationof a Majority Protest

1. At the time, date and place fixed for the public hearing, the City Council shall:

   (i) Conduct a public hearing pertaining to the Proposed Stormwater Utility Fee;

   (ii) Hear all persons interested in the matter of the Proposed Stormwater Utility Fee; and

   (iii) Receive all written communications regarding the Proposed Stormwater Utility Fee.

2. The public hearing may be continued from time to time, as the City Council determines is necessary to complete its consideration of the Proposed Stormwater Utility Fee.
3. If the City Council determines at the close of the public hearing that written protests have been presented, and not withdrawn, by a majority of owners of the Identified Parcels (i.e., there is a majority protest), the Proposed Stormwater Utility Fee shall not be approved.
4. If the City Council determines at the close of the public hearing that there is not a majority protest, the City Council may:

   (i) Remedy and correct any clerical error in the Written Report or otherwise modify the Written Report; provided that any such modification or correction shall not result in a Proposed Stormwater Utility Fee for any Identified Parcel which is greater than the amount shown in the notice of the public hearing that was mailed to the Record Owner of the Identified Parcel;

   (ii) Confirm the Written Report, as originally filed or as amended in accordance with subparagraph (i), above;

   (iii) Adopt a resolution calling for a property owner vote regarding the Proposed Stormwater Utility Fee.

F. Conduct Property Owner Vote: Determination of a Majority Consent

Pursuant to Government Code Section 53755.S(c), the proceedings described in this section shall not constitute an election or voting for purposes of Article II of the California Constitution or of the Elections Code.

An election on the Proposed Stormwater Utility Fee shall be sent, postage prepaid, by first class mail at least forty-five (45) days prior to the date set for the election to the Record Owner of each Identified Parcel. The forty-five (45) day requirement may be waived with the unanimous consent of the property owners.

Each mailed ballot shall contain all of the following:

• On the face of the envelope in which the notice of election and ballot are mailed, there shall appear in substantially the following form in no smaller than 16-point bold type: "OFFICIALBALLOT ENCLOSED."

• The ballot shall include the agency's address for return of the ballot, the date and location where the ballots will be tabulated, and a place where the person returning it may indicate his or her name, a reasonable identification of the parcel, and his or her support or opposition to the proposed fee. The ballots shall be tabulated in a location accessible to the public. The ballot shall be in a form that conceals its content once it is sealed by the person submitting it. The ballot shall remain sealed until the ballot tabulation commences.

No ballot received after the time of the ballot tabulation shall be counted in determining the existence of majority consent. The last pick up by the City Clerk of ballots mailed or delivered to City Hall will occur at 1:30 p.m. on the date scheduled for the election. To ensure that ballots which are mailed or delivered to City Hall are received by the City Clerk prior to the commencement of the ballot tabulation, such ballots must be received by the City Clerk at City Hall prior to 5:30 p.m. on the date scheduled for the ballot tabulation. The City Clerk shall endorse on each ballot the date it is filed with the City. The City Clerk shall identify any ballots which are received after the commencement of the ballot tabulation.

An impartial person designated by the City who does not have a vested interest in the outcome of the proposed fee shall tabulate the ballots submitted in support of or opposition to the proposed fee. An impartial person includes, but is not limited to, the City Clerk. If the City uses City personnel for the ballot tabulation, or if the City contracts with a vendor for the ballot tabulation and the vendor or its affiliates participated in the research, design, engineering, public education, or promotion of the fee, the ballots shall be unsealed and tabulated in public view to permit all interested persons to meaningfully monitor the accuracy of the tabulation process.

The ballot tabulation may be continued to a different time or different location accessible to the public, provided that the time and location are announced at the location at which the tabulation commenced and posted by the City in a location accessible to the public. The impartial person may use technological methods to tabulate the ballots, including, but not limited to, punchcard or optically readable (bar-coded) ballots. During and after the tabulation, the ballots and, if applicable, the information used to determine the weight of each ballot, shall be treated as public records, subject to public disclosure and made available for inspection by any interested person. The ballots shall be preserved for a minimum of two years, after which they may be destroyed.

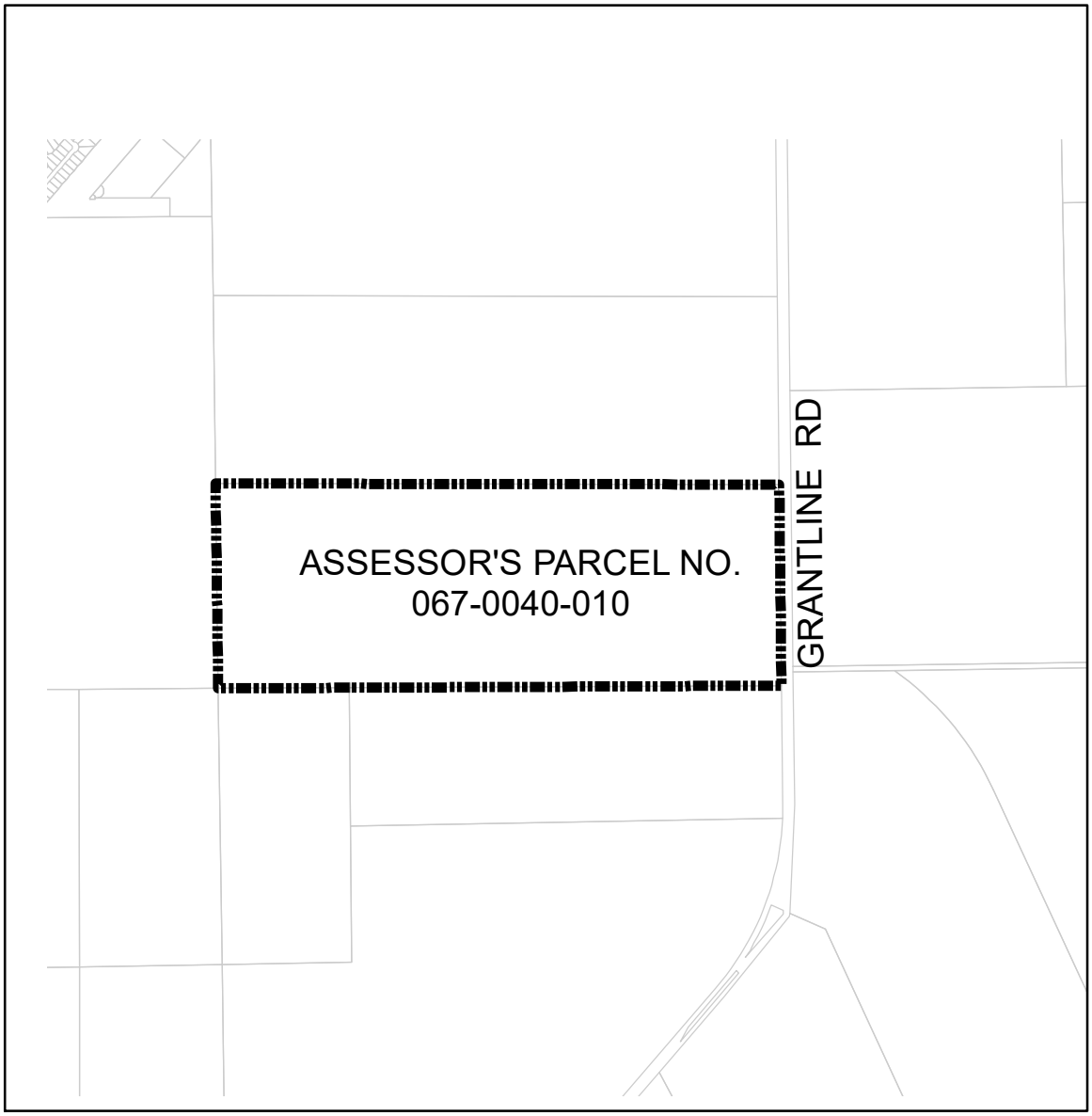
Majority approval of the Record Owners shall exist if the number of valid ballots in favor of the fee exceeds the number of valid ballots in opposition to the fee.

At the time, date and place fixed for the ballot tabulation, the City Council shall direct the City Clerk to commence the ballot tabulation.

If there is no majority approval, the Stormwater Utility Fee shall not be imposed.

If majority approval exists, the City Council may impose the Stormwater Utility Fee pursuant to the Ordinance.

CITY OF RANCHO CORDOVA
STORMWATER UTILITY FEE AREA
ANNEXATION 34
GRANTLINE 220 PROJECT



Legend

Annexation Boundary

Stormwater Utility Fee

Sample of the Stormwater Utility Fees for Fiscal Year 2021-2022:

Table 1

Land Use Description	Total Area (acres)	Sample Fee
Single Family Residential (SFR1)	0.16	$137.62
Single Family Residential (SFR2)	0.22	$151.38
Single Family Residential (SFR3)	0.30	$161.72
Single Family Residential (SFR4)	0.40	$172.02
Single Family Residential (SFR5)	1.00	$172.02
Multi-Family Residential (MFR1)	5.00	$1,204.35
Commercial	1.00	$1,290.39
Industrial	1.00	$1,376.43
Schools	5.00	$860.26
Private Recreation	1.00	$430.11
Parks/Greenbelts	2.00	$172.02
Public Property (with structures)	2.00	$516.14

CITY OF RANCHO CORDOVA
PETITION
(With Waivers)
Related to the Imposition of a Stormwater Utility Fee
and Other Related Matters

This is a petition to impose a stormwater utility fee and related matters under the Health and Safety Code and Article XIIID of the California State Constitution and it states as follows:

1. **Petitioner**. This Petition is submitted by the person (the "Petitioner") (whether one or more) identified below as or for the record owner(s) of the parcels of land identified below (the "Property"). The Petitioner warrants to the City that the Petitioner is such owner or is legally authorized to execute this Petition for and on behalf of such owner(s).

2. **Proceedings Requested**. This Petition asks that the City Council undertake proceedings under the Health and Safety Code and Article XIIID of the California State Constitution to impose a stormwater utility fee.

3. **Boundaries**. This Petition asks that the territory to be included consist of that shown on a map of the proposed area of the stormwater utility fee described in Exhibit "A" and attached hereto and made a part hereof and which map includes the Property.

4. **Purpose**. This Petition asks that the stormwater utility fee be created, and the fee be levied to finance all or a part of the storm and flood protection services.

5. **Waivers**. To expedite the completion of the proceedings, the Petitioner waives all notices of hearing and all published notices regarding the establishment of the stormwater utility fee, notices of election, applicable waiting periods for the holding of any public hearing and for election and all ballot arguments and analysis for the election, it being acknowledged by the Petitioner that all such notices are for the benefit of the Petitioner and may be waived.

The Property that is subject to this petition is identified as:

County of Sacramento Assessor's Parcel Numbers:

067-0040-010-0000: The property consists of a total of 220.15 acres.

The Petitioner (record owner) of the Property is:

Lennar Homes of California, LLC,
a California limited liability company
A successor-in-interest by conversion to Lennar Homes of California Inc.

Signature of Petitioner: _____
[Larry Gualco, Sr. Vice President]

Date: 3/3/22

The address to which the ballots for the CFD elections are to be sent:

Lennar Homes of California
1025 Creekside Ridge Drive, Suite 240
Roseville, CA 95678
Attention: Larry Gualco

MEMORANDUM

ITEM 9.11.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Elizabeth Sparkman, Community Development Director
Dalia Fadl, Principal Engineer

SUBJECT: **A RESOLUTION APPROVING THE ANNEXATION OF THE GRANTLINE 220 PROJECT TO THE CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2014-2 (STREET, LIGHTING AND LANDSCAPE MAINTENANCE)**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would approve Annexation Map. No. 12 for the Grantline 220 project to Community Facilities District No. 2014-2 (Street, Lighting and Landscape Maintenance) and approves the recording of the annexation map and the Notice of Special Tax Lien.

BACKGROUND

On April 21, 2014, the City adopted a resolution of intention to establish a Community Facilities District (CFD) and Future Annexation Area for Citywide street, lighting, and landscape maintenance services. On June 2, 2014, the City adopted the resolution forming CFD No. 2014-2 pursuant to the Mello-Roos Community Facilities Act of 1982 (State of California Government Code Section 5311 et seq.) (the “Act”). The action defining the Future Annexation Area for the District provided for a more efficient process for the annexation of property when the property owners have provided unanimous consent. Defining the Future Annexation Area provided the resolution of intention, noticing, and public hearing for the entire Future Annexation Area, so these steps do not need to be repeated for each annexation.

The annexation process for projects within the future annexation area is streamlined by receiving a petition and waiver from the property owner(s), the City Council approving the Annexation Boundary Map by resolution, followed by the recording of the Annexation Boundary Map and Notice of Special Tax Lien by the City Clerk.

DISCUSSION

The project included in this action was conditioned to annex to CFD No. 2014-2 to provide funding for maintenance services including the maintenance, repair, replacement and lighting of

public streets, roads, landscape, and appurtenant facilities in the public right of way. In March 2022, the property owner signed a unanimous approval of the annexation to CFD No. 2014-2 (see Attachment 4). Adoption of the attached Resolution approves Annexation Boundary Map No. 12 for the project and directs the City Clerk to execute and record the Map and Notice of Special Tax Lien for the project.

FISCAL IMPACT AND FUNDING SOURCE

This annexation has no impact on the city's general fund. Funds collected will be used for maintenance of streets, lighting, and landscape maintenance services.

ATTACHMENT(S)

1. Resolution
2. Exhibit A to Resolution-Annexation Boundary Map
3. Exhibit B to the Resolution
4. Unanimous Approval

CITY OF RANCHO CORDOVA

RESOLUTION XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING THE ANNEXATION OF THE GRANTLINE 220 PROJECT TO THE CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2014-2 (STREET, LIGHTING, AND LANDSCAPE MAINTENANCE)

WHEREAS, the Conditions of Approval for the Grantline 220 project require the property owner/applicant to participate in the provision of funding to provide fair share maintenance of any existing and all new public improvements associated with the project; and

WHEREAS, on April 21, 2014, the City adopted Resolution No. 20-2014 declaring its intention to establish Community Facilities District No. 2014-2 (Street, Lighting, and Landscape Maintenance) (the "District") and Future Annexation Area for maintenance of street, lighting, and landscape maintenance services. On June 2, 2014, the City adopted Resolution No. 34-2014 forming CFD No. 2014-2 pursuant to the Mello-Roos Community Facilities Act of 1982 (State of California Government Code Section 5311 et seq.) (the "Act"); and

WHEREAS, the action defining the Future Annexation Area for the District provided for a more efficient process for the annexation of property when the property owners have provided for their unanimous consent such that the annexation process for projects within the Future Annexation Area has been reduced to receiving a petition, consent and waiver from the property owner(s); and

WHEREAS, in March 2022, the property owner executed a unanimous approval form which irrevocably consents to and votes in favor of the annexation of a portion of the property to the District and the levy of the special tax on the property to finance the services of the CFD in accordance with the Rate and Method of the District (Attachment 4); and

WHEREAS, in the case of annexation proceedings, pursuant to Streets and Highways Code Section 3110.5 a separate map of the area proposed to be annexed is required to be prepared and adopted; and

WHEREAS, City staff has caused to be prepared Annexation Boundary Map No. 12 for a property known as the Grantline 220 project, Exhibit A attached hereto, for the annexation of the property to CFD No. 2014-2 (Street, Lighting, and Landscape Maintenance).

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, as follows:

1. The Council so finds and determines the above recitals are true and correct.

2. Council approves Annexation Boundary Map No. 12 and finds and determines that the territory shown in the Annexation Boundary Map is hereby added to and made a part of the District with full legal effect.

3. The City Clerk is directed to execute and record Annexation Boundary Map No. 12 in the office of the County Recorder of Sacramento County no later than 15 days after the adoption of this resolution.

4. The City Council finds and determines that a special tax shall be levied within the Territory to be annexed and which special tax shall be the same as the tax to be levied within the District. Collection of said tax shall commence in Fiscal Year 2022-2023, and the rate and method of apportionment of said tax shall be as set forth in the Resolution of Formation of the District.

5. The City Clerk is directed to execute and record a Notice of Special Tax Lien, Exhibit B, in the office of the County Recorder of Sacramento County no later than 15 days after recordation of the Annexation Boundary Map No. 12.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

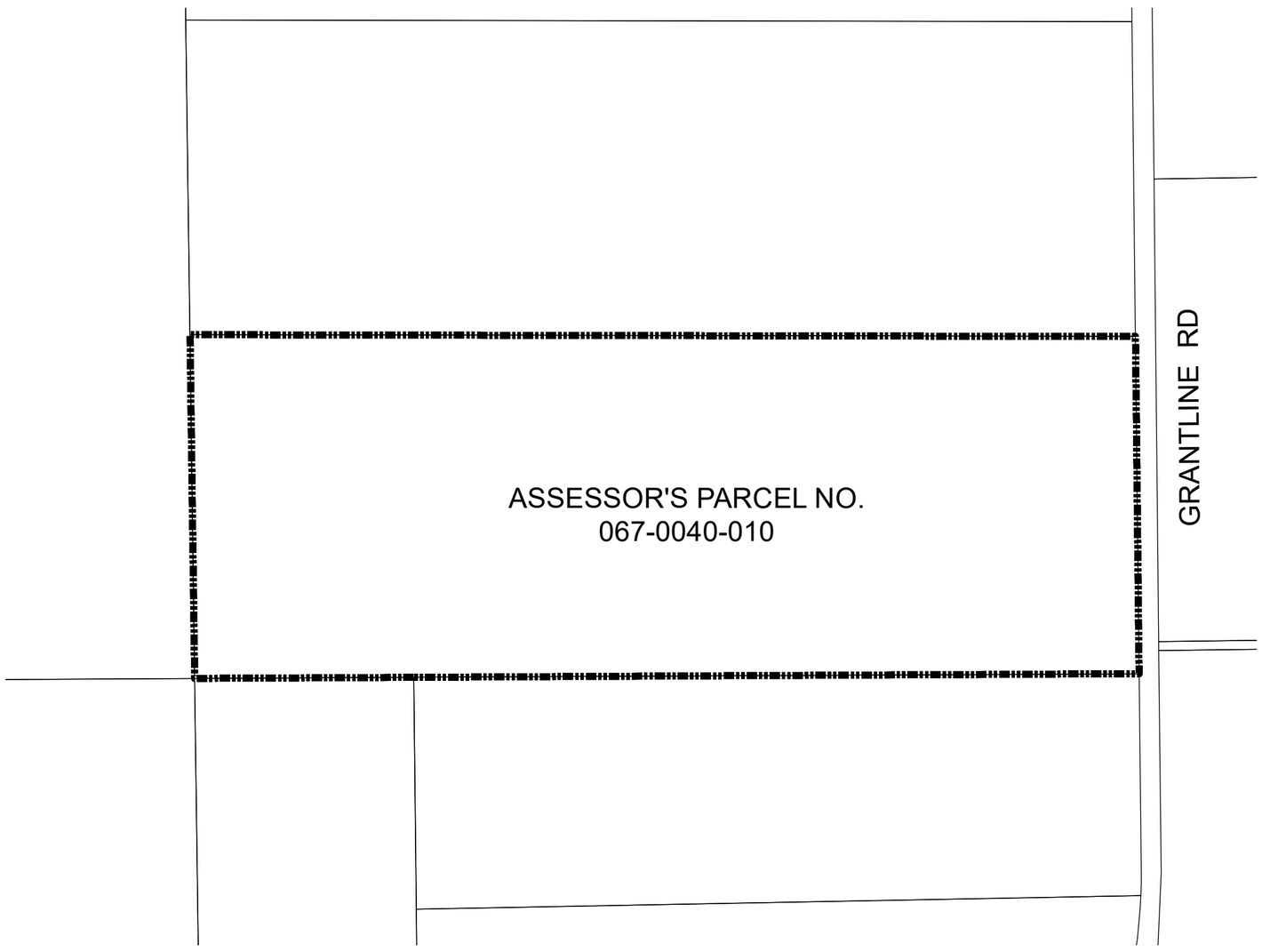
ATTEST:

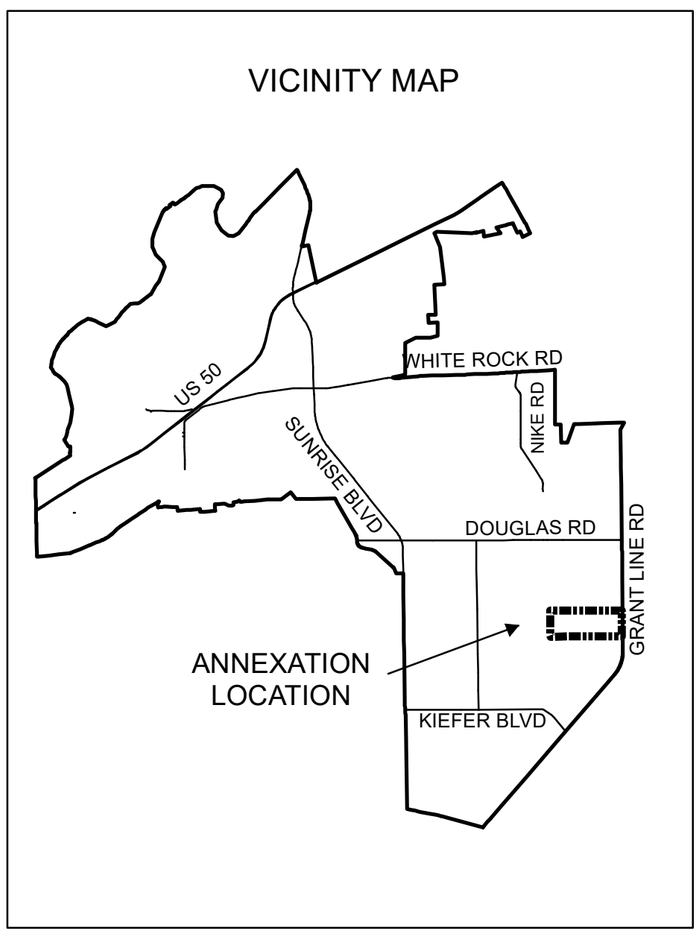
_____
Stacy Leitner, CMC
City Clerk

PROPOSED BOUNDARY OF ANNEXATION 12 GRANTLINE 220 PROJECT TO

CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2014-2

COUNTY OF SACRAMENTO, STATE OF CALIFORNIA





CLERK'S MAP STATEMENT

FILED IN THE OFFICE OF THE CITY CLERK OF THE CITY OF RANCHO CORDOVA THIS _____ DAY OF _____ 2022.

_____
CITY CLERK OF THE CITY OF RANCHO CORDOVA

CLERK'S MAP STATEMENT

I HEREBY CERTIFY THAT THE AREA SHOWN ON THIS MAP OF THE PROPOSED ANNEXATION 9 TO COMMUNITY FACILITIES DISTRICT NO. 2014-2, (STREET MAINTENANCE, LIGHTING AND LANDSCAPING), CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA, WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AT A REGULARLY SCHEDULED MEETING THEREOF, HELD ON THE ____ DAY OF _____ 2022. BY ITS RESOLUTION NO. _____.

_____
CITY CLERK OF THE CITY OF RANCHO CORDOVA

COUNTY RECORDER'S FILING STATEMENT

FILED THIS _____ DAY OF _____ 2022. AT THE HOUR OF _____ O'CLOCK ____.M. IN BOOK _____ OF MAPS OF ASSESSMENT AND COMMUNITY FACILITIES DISTRICTS PAGE NO. _____ IN THE OFFICE OF THE COUNTY RECORDER IN THE COUNTY OF SACRAMENTO, STATE OF CALIFORNIA.

DONNA ALLRED
COUNTY RECORDER OF THE COUNTY OF SACRAMENTO, CALIFORNIA

BY: _____
DEPUTY

FILE: _____

REFERENCE THE SACRAMENTO COUNTY ASSESSOR'S MAPS FOR A DETAILED DESCRIPTION OF PARCEL LINES AND DIMENSIONS

Legend

Annexation Boundary

1 " = 700 '

HARRIS & ASSOCIATES
22 EXECUTIVE PARK, SUITE 200
IRVINE, CALIFORNIA 92614
800-827-4901

PROPOSED BOUNDARY MAP

City of Rancho Cordova
Community Facilities District No. 2014-2
Annexation 12 (Grantline 220 Project)
County of Sacramento, California

Sheet 1 of 1

RECORDING REQUESTED BY
AND WHEN RECORDED RETURN TO:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670
Attention: City Clerk

AMENDED NOTICE OF SPECIAL TAX LIEN

Pursuant to the requirements of Section 3114.5 of the Streets and Highways Code and Section 53328.3 of the Government Code, the undersigned clerk of the legislative body of the City of Rancho Cordova (the "City"), State of California, hereby gives notice that a lien to secure payment of special taxes is hereby imposed by the City Council of the City. The special taxes secured by this lien are authorized to be levied for the purpose of providing services as described in Exhibit A attached hereto and hereby made a part hereof.

The special taxes are authorized to be levied within Annexation Boundary Map No. 12 (the "Annexed Area") of the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting, and Landscape Maintenance) (the "District"), which has now been officially annexed to the District, and the lien of the special taxes are a continuing lien which shall secure each annual levy of the special taxes and which shall continue in force and effect until the special taxes cease to be levied and a notice of cessation of special taxes is recorded in accordance with Section 53330.5 of the Government Code.

The rate, method of apportionment, and manner of collection of authorized special tax is as set forth in Exhibit B attached hereto and hereby made a part hereof. The obligation to pay the special tax may not be prepaid and permanently satisfied and the lien of the special taxes canceled.

Notice is further given that upon the recording of this notice in the office of the county recorder, the obligation to pay the special tax levies shall become a lien upon all nonexempt real property within the District in accordance with Section 3115.5 of the Streets and Highways Code.

The name of the owner and the assessor's tax parcel number(s) of the real property included within the District and not exempt from the special tax are as set forth in Exhibit C attached hereto.

Reference is hereby made to the Notice of Special Tax Lien with respect to the District recorded on June 17, 2014, as Document No. 20140617 page 353, in the office of the County Clerk & Recorder of the County of Sacramento, California, which contains

a list of the then existing owners and assessor tax parcel numbers of the original boundaries of the District.

Reference is made to the boundary map of the District recorded at Book 116, Pages 0023-0024, Document No. 20140430 Pg0873 of Maps and Assessment and Community Facilities Districts in the Office of the County Recorder for the County of Sacramento, State of California (the " Original Boundary Map"), and the map of the Annexed Territory recorded at Book 133, Page 5, Document No. 202103290293 in the Office of the County Recorder for the County of Sacramento, State of California, which map together with the Original Boundary Map and the boundary maps of record for all prior annexations, are now the final boundary maps of the Community Facilities District including the Annexed Territory.

For further information concerning the current and estimated future tax liability of owners or purchasers of real property subject to this special tax lien, interested persons should contact the Department of Public Works of the City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, California 95670, (916) 851-8710.

Dated: _____ _____
CITY CLERK OF THE CITY OF
RANCHO CORDOVA

EXHIBIT A

CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(Streets, Lighting, and Landscape Maintenance)

DESCRIPTION OF DISTRICT MAINTENANCE SERVICES

Description of services:

Maintenance of public street, lighting, and landscape improvements

- Maintenance means the furnishing of services and materials for the replacement of public street, lighting and landscaping improvements, and appurtenant facilities, including the administration and overhead related to the maintenance activities.

Reserve Fund

- The CFD special taxes may be collected and set-aside in designated funds, collected over several years, that may be used by the CFD to fund future replacement of public streets, lighting and landscaping improvements and other services as determined by the CFD.

EXHIBIT B

CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(STREET, LIGHTING, AND LANDSCAPE MAINTENANCE)

RATE AND METHOD OF APPORTIONMENT OF SPECIAL TAX

A Special Tax applicable to each Assessor's Parcel in Community Facilities District No. 2014-2 (Street, Lighting, and Landscape Maintenance) shall be levied and collected according to the tax liability determined by the City Council, acting in its capacity as the legislative body of CFD No. 2014-2, through the application of the appropriate Special Tax rate, as described below. All of the property in CFD No. 2014-2, unless exempted by law or by the provisions of Section E below, shall be taxed for the purposes, to the extent, and in the manner herein provided, including property subsequently annexed to CFD No. 2014-2 unless a separate Rate and Method of Apportionment of Special Tax is adopted for the annexation area.

A. DEFINITIONS

The terms hereinafter set forth have the following meanings:

"Acre or Acreage" means the land area of an Assessor's Parcel as shown on an Assessor's Parcel Map, or if the land area is not shown on an Assessor's Parcel Map, the land area shown on the applicable final subdivision map, a final parcel map, a final approved condominium plan, or functionally equivalent final map or instrument recorded in the Office of the County Recorder. If the area shown on said map is in square footage, Acreage shall be calculated by dividing the square footage by 43,560.

"Additional Load and Decorative Lighting Parcel" means any Parcel that is determined by the City to be both an Additional Load Parcel and a Decorative Lighting Parcel.

"Additional Load Parcel" means any Parcel of Commercial Property or Industrial Property that is determined by the City to create excessive wear and tear on the roadways and/or a high volume of vehicular traffic.

"Administrative Expenses" means the costs incurred by the City to determine, levy and collect the Special Tax, including salaries of City employees and fees of consultants and the costs of collecting installments of the Special Taxes upon the general tax rolls, preparation of required reports, and any other costs required to administer the CFD.

"Administrator" means the person or firm designated by the City to administer the Special Taxes according to this Rate and Method of Apportionment of Special Tax.

"Annual Escalation Factor" means the annual percentage increase in the McGraw-Hill Engineering News Record Construction Cost Index (ENR CCI) for the San Francisco area from January

of the previous year to January of the year that the Special Tax is levied. In the event that the ENR CCI defined above is no longer reported, the City Council shall select a similar index to replace it.

"Assessor's Parcel" or **"Parcel"** means a lot or parcel shown in an Assessor's Parcel Map with an assigned Assessor's Parcel number.

"Assessor's Parcel Map" means an official map of the County Assessor designating parcels by Assessor's Parcel number.

"Authorized Services" means the public services authorized to be funded by CFD No. 2014-2 as set forth in the documents adopted by the City Council when the CFD was formed.

"CFD" or **"CFD No. 2014-2"** means the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting, and Landscaping Maintenance).

"City" means the City of Rancho Cordova.

"City Council" means the City Council of the City of Rancho Cordova, acting as the legislative body of CFD No. 2014-2.

"Commercial Property" means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for a commercial establishment which includes, but is not limited to, retail stores, clothing stores, bookstores, convenience stores, drug stores, professional services (i.e., barber shops, dry cleaners), restaurants, supermarkets, hospitals, movie theaters, appliance and electronics stores, home supply stores, auto parts stores, and other retail uses. The City shall make the determination if a Parcel is Commercial Property.

"County" means the County of Sacramento.

"Decorative Lighting Parcel" means any Parcel of Developed Property that is determined by the City to have or benefit from decorative lighting features.

"Developed Property" means, in any Fiscal Year, all Parcels of Taxable Property for which a use permit or building permit for new construction of a residential or non-residential structure (which shall not include a permit issued solely for construction of the foundation if another permit remains to be issued for vertical construction of the building) was issued prior to June 30 of the preceding Fiscal Year.

"Fiscal Year" means the period starting on July 1 and ending on the following June 30.

"Hotel Property" means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for a structure that constitutes a place of lodging providing sleeping accommodations and related facilities for travelers.

"Industrial Property" means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for construction of an industrial, manufacturing, or

warehousing structure. The City shall make the determination if a Parcel is Industrial Property.

"Maximum Special Tax" means the greatest amount of Special Tax that can be levied on an Assessor's Parcel in any Fiscal Year determined in accordance with Section C below.

"Multi-Family Property" means, in any Fiscal Year, all Parcels of Developed Property for which a building permit or use permit has been issued for construction of a residential structure with five (5) or more Units that share a single Assessor's Parcel number, all of which are offered for rent to the general public and cannot be purchased by individual homebuyers.

"Non-Residential Property" means, collectively, Commercial Property, Hotel Property, Industrial Property, and Office Property.

"Office Property" means, in any Fiscal Year, all Parcels of Developed Property for which a building permit or use permit has been issued for a building in which professional, banking, insurance, real estate, administrative or in-office medical or dental activities are conducted. The City shall make the determination if a Parcel is Office Property.

"Ordinary Use Parcel" means any Parcel of Taxable Property that is not an Additional Load Parcel, Decorative Lighting Parcel, Residential Alley Parcel, Additional Load and Decorative Lighting Parcel, or Residential Alley and Decorative Lighting Parcel.

"Proportionately" means that the ratio of the actual Special Tax levy to the Maximum Special Tax is equal for all Parcels of Developed Property.

"Public Property" means any property within the boundaries of CFD No. 2014-2 that is owned by the federal government, State of California, County, City, or other public agency.

"Residential Alley and Decorative Lighting Parcel" means any Parcel that is determined by the City to be both a Residential Alley Parcel and a Decorative Lighting Parcel.

"Residential Alley Parcel" means any Parcel of Residential Property that is determined by the City to have residential alleys that are part of the public roadways.

"Residential Property" means, collectively, Single Family Attached Property, Single Family Detached Property, and Multi-Family Property.

"Single Family Attached Property" means, in any Fiscal Year, all Parcels of Developed Property for which a building permit was issued for construction of a residential structure consisting of two (2) to four (4) Units that share common walls, have separate Assessor's Parcel numbers assigned to them (except for a duplex unit, which may share an Assessor's Parcel with another duplex unit), and are offered as for-sale Units (which shall still be the case even if the Units are purchased and subsequently offered for rent by the owner of the Unit(s)), including such residential structures that meet the statutory definition of a condominium contained in Civil Code Section 1351.

"Single Family Detached Property" means, in any Fiscal Year, all Parcels of Developed

Property for which a building permit was issued for construction of a Unit that does not share a common wall with another Unit.

"Soundwall Parcel" means any Parcel of Developed Property whose tract boundary is encompassed by soundwalls maintained within the CFD.

"Special Tax Requirement" means the amount of revenue needed in any Fiscal Year to pay for the following: (i) Authorized Services, (ii) Administrative Expenses, and (iii) amounts needed to cure any delinquencies in the payment of Special Taxes which have occurred or (based on delinquency rates in prior years) may be expected to occur in the Fiscal Year in which the tax will be collected.

"Special Tax" means a special tax levied in any Fiscal Year on property within CFD No. 2014-2 to pay the Special Tax Requirement.

"Square Foot," "Square Footage," or **"Square Feet"** means the building square footage reflected on the original building permit issued for construction of a building.

"Taxable Property" means all Assessor's Parcels within the boundaries of CFD No. 2014-2 which are not exempt from the Special Tax pursuant to law or Section E below.

"Taxable Public Property" means, in any Fiscal Year, all Assessor's Parcels in CFD No. 2014-2 that had, in prior Fiscal Years, been taxed as Developed Property and subsequently came under the ownership of a public agency.

"Tax Zone" means a mutually exclusive tax zone identified in Attachment 1 of this Rate and Method of Apportionment of Special Tax, as may be updated to include new Parcels or new tax zones added to the CFD as a result of future annexations.

"Unit" means an individual single-family detached unit or an individual residential unit within a duplex, triplex, fourplex, townhome, condominium, or apartment structure. Unit shall also mean a rentable single hotel room or rentable unit on a Parcel of Hotel Property.

B. DATA COLLECTION FOR ANNUAL TAX LEVY

Each Fiscal Year, the Administrator shall identify the current Assessor's Parcel number for all Parcels of Taxable Property within CFD No. 2014-2 and shall determine within which Tax Zone each Assessor's Parcel is located. Upon each annexation of property into CFD No. 2014-2, the Administrator shall update Attachment 1 to include the new Assessor's Parcel number(s). In addition, for all Parcels of Developed Property, if applicable to the Tax Zone in which the Parcels are located, the Administrator shall determine if each Parcel is an Ordinary Use Parcel, an Additional Load Parcel, a Residential Alley Parcel, a Decorative Lighting Parcel, an Additional Load and Decorative Lighting Parcel, or a Residential Alley and Decorative Lighting Parcel.

Based on review of building permit records for property within the CFD, the Administrator shall determine which Parcels in the CFD are Developed Property for purposes of levying the Special

Tax pursuant to Section D below. For Single Family Attached Property, Multi-Family Property, and Hotel Property, the number of Units shall be determined by referencing the condominium plan, apartment plan, site plan or other development plan for the property. For Residential Property, the Administrator shall determine the Square Footage of each Unit. For Non-Residential Property, the Administrator shall determine the Acreage of, and Square Footage on, each Parcel.

If a Parcel in the CFD is rezoned prior to such Parcel becoming Developed Property, the City may in its sole discretion, move the Parcel to a different Tax Zone based on the rezone. If a Parcel rezones after the Parcel has been taxed as Developed Property in prior Fiscal Years, the City can either continue to apply the Maximum Special Tax to the Parcel that had applied prior to the rezone or, in the City's sole discretion, allow for the Parcel to be moved to a different Tax Zone based on the rezone.

In any Fiscal Year, if it is determined that (i) a parcel map for a portion of property in CFD No. 2014-2 was recorded after January 1 of the prior Fiscal Year (or any other date after which the Assessor will not incorporate the newly-created Parcels into the then current tax roll), (ii) because of the date the parcel map was recorded, the Assessor does not yet recognize the new Parcels created by the parcel map, and (iii) one or more of the newly-created Parcels meets the definition of Developed Property, the Administrator shall calculate the Special Tax for the property affected by recordation of the parcel map by determining the Special Tax that applies separately to each newly-created Parcel, then applying the sum of the individual Special Taxes to the Parcel that was subdivided by recordation of the parcel map.

C. MAXIMUM SPECIAL TAX

1. All Tax Zones

The following Maximum Special Taxes apply to all Parcels of Developed Property within each Tax Zone of CFD No. 2014-2, unless otherwise specified in Attachment 1.

a. Ordinary Use Parcels

MAXIMUM SPECIAL TAXES
ORDINARY USE PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$374.78 per Unit
Single Family Attached Property	$296.07 per Unit
Multi-Family Property	$213.62 per Unit
Commercial Property	$559.17 per 1,000 Square Feet
Hotel Property	$221.12 per Unit
Industrial Property	$168.65 per 1,000 Square Feet
Office Property	$558.42 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

b. Residential Alley Parcels

MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$406.87 per Unit
Single Family Attached Property	$321.43 per Unit
Multi-Family Property	$231.92 per Unit
Commercial Property	N/A
Hotel Property	N/A
Industrial Property	N/A
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

c. Decorative Lighting Parcels

MAXIMUM SPECIAL TAXES
DECORATIVE LIGHTING PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$380.51 per Unit
Single Family Attached Property	$300.60 per Unit
Multi-Family Property	$216.89 per Unit
Commercial Property	$567.72 per 1,000 Square Feet
Hotel Property	$224.50 per Unit
Industrial Property	$171.23 per 1,000 Square Feet
Office Property	$566.96 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

d. Additional Load Parcels

MAXIMUM SPECIAL TAXES
ADDITIONAL LOAD PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	N/A
Single Family Attached Property	N/A
Multi-Family Property	N/A
Commercial Property	$580.39 per 1,000 Square Feet
Hotel Property	N/A
Industrial Property	$175.05 per 1,000 Square Feet
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

e. Soundwall Parcels

MAXIMUM SPECIAL TAXES
SOUNDWALL PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$390.71 per Unit
Single Family Attached Property	$308.66 per Unit
Multi-Family Property	$222.70 per Unit
Commercial Property	$582.94 per 1,000 Square Feet
Hotel Property	$230.52 per Unit
Industrial Property	$175.82 per 1,000 Square Feet
Office Property	$582.16 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

f. Additional Load and Decorative Lighting Parcels

MAXIMUM SPECIAL TAXES
ADDITIONAL LOAD AND DECORATIVE LIGHTING PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	N/A
Single Family Attached Property	N/A
Multi-Family Property	N/A
Commercial Property	$588.94 per 1,000 Square Feet
Hotel Property	N/A
Industrial Property	$177.63 per 1,000 Square Feet
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

g. Residential Alley and Decorative Lighting Parcels

MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY AND DECORATIVE LIGHTING PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$412.60 per Unit
Single Family Attached Property	$325.96 per Unit
Multi-Family Property	$235.18 per Unit
Commercial Property	N/A
Hotel Property	N/A
Industrial Property	N/A
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

h. Residential Alley and Soundwall Parcels

MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY AND SOUNDWALL PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$425.31 per Unit
Single Family Attached Property	$336.00 per Unit
Multi-Family Property	$242.43 per Unit
Commercial Property	N/A
Hotel Property	N/A
Industrial Property	N/A
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

i. Decorative Lighting and Soundwall Parcels

MAXIMUM SPECIAL TAXES
DECORATIVE LIGHTING AND SOUNDWALL PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$396.30 per Unit
Single Family Attached Property	$313.07 per Unit
Multi-Family Property	$225.89 per Unit
Commercial Property	$591.27 per 1,000 Square Feet
Hotel Property	$233.81 per Unit
Industrial Property	$178.33 per 1,000 Square Feet
Office Property	$590.48 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

j. Residential Alley, Decorative Lighting, and Soundwall Parcels

MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY, DECORATIVE LIGHTING AND SOUNDWALL PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$428.15 per Unit
Single Family Attached Property	$338.23 per Unit
Multi-Family Property	$244.04 per Unit
Commercial Property	N/A
Hotel Property	N/A
Industrial Property	N/A
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

D. METHOD OF LEVY AND COLLECTION OF SPECIAL TAX

Each Fiscal Year, the Special Tax shall be levied as follows until the amount of the levy equals the Special Tax Requirement for that Fiscal Year:

First: The Special Tax shall be levied proportionately on each Parcel of Developed Property up to 100% of the Maximum Special Tax determined for each category of Developed Property within the CFD and each Tax Zone until the amount levied is equal to the Special Tax Requirement for the Fiscal Year.

Second: If additional revenue is needed after the first step has been completed, the Special Tax shall be levied proportionately on each Parcel of Taxable Public Property up to 100% of the Maximum Special Tax that would have applied to the Parcel had the Parcel not become Public Property until the amount levied is equal to the Special Tax Requirement for the Fiscal Year.

The Special Tax for CFD No. 2014-2 shall be collected at the same time and in the same manner as ordinary ad valorem property taxes provided, however, that the City may (under the authority of Government Code Section 53340) collect Special Taxes at a different time or in a different manner if necessary to meet CFD No. 2014-2 financial obligations and the Special Tax shall be equally subject to foreclosure if delinquent.

E. LIMITATIONS

Notwithstanding any other provision of this Rate and Method of Apportionment of Special Tax, no Special Tax shall be levied on (i) any Parcel of Public Property that is not Taxable Public Property, and (ii) any Parcel in CFD No. 2014-2 that is not Developed Property.

F. DURATION OF SPECIAL TAX

The Special Tax shall be levied in perpetuity to fund the Special Tax Requirement, unless no longer required as determined at the sole discretion of the City Council.

G. INTERPRETATION OF SPECIAL TAX FORMULA

The City reserves the right to make minor administrative and technical changes to this document that do not materially affect the Rate and Method of Apportionment of Special Taxes. In addition, the interpretation and application of any section of this document shall be left to the City's discretion. The City may make interpretations by ordinance or resolution for purposes of clarifying any vagueness or ambiguity in this Rate and Method of Apportionment of Special Taxes.

ATTACHMENT 1

CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(STREET, LIGHTING, AND LANDSCAPING MAINTENANCE)

IDENTIFICATION OF TAX ZONES

TAX ZONE 1

Assessor's Parcels Included in Tax Zone 1 *	Fiscal Year In Which Property Was Added to CFD No. 2014-2
067-0030-066 067-0030-067 067-0030-069 067-0030-070 067-1020-001 067-1020-002	2013-14

*** The property identified by the Assessor's Parcel Numbers listed above shall remain part of the identified Tax Zone regardless of changes in the configuration of the Assessor's Parcels or changes to APNs in future Fiscal Years. As APNs change, the City may update Attachment 1 to reflect the most current APNs and Tax Zones consistent with the categories of Developed Property set forth in the Rate and Method of Apportionment of Special Tax for CFD No. 2014-2.**

Tax Zone 1 – Maximum Special Taxes

The following Maximum Special Taxes apply to all Parcels of Developed Property within Tax Zone 1 of CFD No. 2014-2. These Maximum Special Taxes do not incorporate the long-term maintenance activities which are included as a part of CFD No. 2014-1 (Montelena).

MAXIMUM SPECIAL TAXES
ORDINARY USE PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Ordinary Use Parcels Maximum Special Tax Zone 1	Soundwall and Decorative Lighting Parcels Maximum Special Tax Zone 1
Single Family Detached Property	$275.49 per Unit	$279.85 per Unit
Single Family Attached Property	$217.64 per Unit	$221.08 per Unit
Multi-Family Property	$157.03 per Unit	$159.52 per Unit
Commercial Property	$210.00 per 1,000 Square Feet	$210.00 per 1,000 Square Feet
Hotel Property	$162.54 per Unit	$165.11 per Unit
Industrial Property	$123.97 per 1,000 Square Feet	$125.93 per 1,000 Square Feet
Office Property	$210.00 per 1,000 Square Feet	$210.00 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

TAX ZONE 2

Assessor's Parcels Included In Tax Zone 2*			Fiscal Year in Which Property Was Added to CFD No. 2014-2
072-2870-001	through	072-2870-072	2014-15
072-2880-001	through	072-2880-082	
072-2890-001	through	072-2890-088	
072-2900-001	through	072-2900-080	
072-2910-001	through	072-2910-083	
072-2920-001	through	072-2920-069	
072-2940-001	through	072-2940-066	
072-2950-001	through	072-2950-063	
072-2960-001	through	072-2960-065	

*** The property identified by the Assessor's Parcel Numbers listed above shall remain part**

of the identified Tax Zone regardless of changes in the configuration of the Assessor's Parcels or changes to APNs in future Fiscal Years. As APNs change, the City may update Attachment 1 to reflect the most current APNs and Tax Zones consistent with the categories of Developed Property set forth in the Rate and Method of Apportionment of Special Tax for CFD No. 2014-2.

Tax Zone 2 – Maximum Special Taxes

The following Maximum Special Taxes apply to all Parcels of Developed Property within Tax Zone 2 of CFD No. 2014-2. These Maximum Special Taxes include the maintenance of street lighting only.

MAXIMUM SPECIAL TAXES
ORDINARY USE PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Street Lighting Only Maximum Special Tax Zone 2
Single Family Detached Property	$38.00 per Unit
Single Family Attached Property	$38.00 per Unit
Multi-Family Property	$157.03 per Unit
Commercial Property	$210.00 per 1,000 Square Feet
Hotel Property	$162.54 per Unit
Industrial Property	$123.97 per 1,000 Square Feet
Office Property	$210.00 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

EXHIBIT C

OWNER AND THE ASSESSOR'S TAX PARCEL NUMBER(S)

Parcel No.	Property Owner
067-0242-002	AG EHC II (HOV) CA 1 LP
067-0241-004	AG EHC II (HOV) CA 1 LP
067-0241-005	AG EHC II (HOV) CA 1 LP
067-0241-001	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-002	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-003	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-006	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-007	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-008	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0242-003	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0242-004	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0242-005	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0242-006	K. HOVNANIAN AT JAEGER RANCH, LLC

CITY OF RANCHO CORDOVA
Community Facilities District No. 2014-2
(Street, Lighting and Landscape Maintenance)

Annexation No. 12

UNANIMOUS APPROVAL
of Annexation to a Community Facilities District
and Related Matters

To the City Council
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 956703

Members of the City Council:

This constitutes the Unanimous Approval (the "Unanimous Approval") of Lennar Homes of California, the record owner(s) (the "Property Owner") of the fee title to the real property identified below (the "Property") contemplated by Section 53339.3 et seq. of the Mello-Roos Community Facilities Act of 1982, as amended (the "Act") to annexation of the Property to the "City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscape Maintenance) (the "CFD"), and it states as follows:

1. Property Owner. This Unanimous Approval is submitted by the Property Owner (whether one or more) identified below as or for the recorded owner(s) of the Property identified below. The Property Owner warrants to the City of Ranch Cordova (the "City") that they are such Property Owner or is legally authorized to execute this Unanimous Approval for and on behalf of such Property Owner.

2. Approval of Annexation. This Unanimous Approval constitutes the unanimous approval and unanimous vote by the Property Owner in favor of the annexation of the Property to the CFD. The CFD was formed to finance the municipal services (the "Services") described in Exhibit A hereto and made a part hereof.

3. Approval of Special Tax and the Facilities. This Unanimous Approval constitutes the unanimous approval and unanimous vote by the Property Owner in favor of the levy of special taxes (the "Special Taxes") on the Property to finance the Services, according to the Rate and Method of Apportionment of Special Taxes for the CFD attached hereto as Exhibit B and made a part hereof (the "Rate and Method"). Exhibit B describes the maximum special tax rate for the Services. This annexed property is placed in Tax Zone 3 for purposes of computation of the Special Tax.

4. Approval of the Appropriations Limit. This Unanimous Approval constitutes the unanimous approval and unanimous vote by the Property Owner in favor of the appropriations limit established for the CFD.

5. Waivers and Vote. The Property Owner hereby confirms that this Unanimous Approval constitutes its approval and unanimous vote as described herein and as contemplated by Section 53339.3 et seq. of the Act and Article XIIIA of the California Constitution. The Property Owner hereby waives all other rights with respect to the annexation of the Property, the levy of the Special Taxes on the Property and the other matters covered in this Unanimous Approval.

6. Recordation of Amendment to Notice of Special Tax Lien. The Notice of Special Tax Lien for the CFD was heretofore recorded in the Office of the County Recorder of the County of Sacramento, State of California on June 17, 2014 recorded at Book 20140617 at Page 0345 (Document No. 20140617PG0345).

The Property Owner hereby authorizes and directs the City Clerk to execute and cause to be recorded in the Office of the County Recorder of the County of Sacramento an amendment to the Notice of Special Tax Lien for the CFD as required by Section 3117.5 of the California Streets and Highways Code. The amendment to the Notice of Special Tax Lien shall include the Rate and Method as an exhibit thereto.

7. City Warranted. The Property Owner warrants to the City that the presentation of this Unanimous Approval, any votes, consents or waivers contained herein, and other actions mandated by the City for the annexation of the Property to the CFD shall not constitute or be construed as events of default or delinquencies under any existing or proposed financing documents entered into or to be entered into by the Property Owner for the Property, including any "due-on-encumbrance" clauses under any existing security instruments secured by the Property. If requested by the City, the Property Owner agrees, at its own expense, to supply to the City, current title evidence so that the City may verify ownership for the annexation to the CFD.

8. Due Diligence and Disclosures. The Property Owner agrees to cooperate with the City and its attorneys and consultants and to provide all information and disclosures required by the City about the Special Taxes to purchasers of the Property or any part of it.

9. Agreements. The Property Owner further agrees to execute such additional or supplemental agreements as may be required by the City to provide for any of the actions and conditions described in this Unanimous Approval, including any cash deposit required to pay for the City's costs in annexing the Property to the CFD.

10. The Property. The Property is identified as follows:

Assessor's Parcel No. **067-0040-010-0000**

By executing this Unanimous Approval, the Property Owner agrees to all of the above.

The Petitioner (record owner) of the Property is:

Lennar Homes of California, LLC,
a California limited liability company
A successor-in-interest by conversion to Lennar Homes of California Inc.

Signature of Petitioner: _____
[Larry Gualco, Sr. Vice President]

Date: 3/3/22

The address to which the ballots for the CFD elections are to be sent:

Lennar Homes of California
1025 Creekside Ridge Drive, Suite 240
Roseville, CA 95678
Attention: Larry Gualco

EXHIBIT A
CITY OF RANCHO CORDOVA
Community Facilities District No. 2014-2
(Street, Lighting and Landscape Maintenance)

DESCRIPTION OF SERVICES

Maintenance of public street, lighting and landscaping improvements

Maintenance means the furnishing of services and materials for the ordinary and usual operation, maintenance and servicing of the public street, lighting, and landscaping improvements, dedicated easements, and appurtenant facilities, and administration and overhead of all aspects of the CFD.

Reserve Fund

The CFD special taxes may be collected and set-aside in designated funds, collected over several years, that may be used by the CFD to fund future repairs to public streets, lighting and landscaping improvements and other services as determined by the CFD.

EXHIBIT B

CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(STREET, LIGHTING AND LANDSCAPE MAINTENANCE)

RATE AND METHOD OF APPORTIONMENT OF SPECIAL TAX

A Special Tax applicable to each Assessor's Parcel in Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance) shall be levied and collected according to the tax liability determined by the City Council, acting in its capacity as the legislative body of CFD No. 2014-2, through the application of the appropriate Special Tax rate, as described below. All of the property in CFD No. 2014-2, unless exempted by law or by the provisions of Section E below, shall be taxed for the purposes, to the extent, and in the manner herein provided, including property subsequently annexed to CFD No. 2014-2 unless a separate Rate and Method of Apportionment of Special Tax is adopted for the annexation area.

A. DEFINITIONS

The terms hereinafter set forth have the following meanings:

"Acre or Acreage" means the land area of an Assessor's Parcel as shown on an Assessor's Parcel Map, or if the land area is not shown on an Assessor's Parcel Map, the land area shown on the applicable final subdivision map, a final parcel map, a final approved condominium plan, or functionally equivalent final map or instrument recorded in the Office of the County Recorder. If the area shown on said map is in square footage, Acreage shall be calculated by dividing the square footage by 43,560.

"Additional Load and Decorative Lighting Parcel" means any Parcel that is determined by the City to be both an Additional Load Parcel and a Decorative Lighting Parcel.

"Additional Load Parcel" means any Parcel of Commercial Property or Industrial Property that is determined by the City to create excessive wear and tear on the roadways and/or a high volume of vehicular traffic.

"Administrative Expenses" means the costs incurred by the City to determine, levy and collect the Special Tax, including salaries of City employees and fees of consultants and the costs of collecting installments of the Special Taxes upon the general tax rolls, preparation of required reports, and any other costs required to administer the CFD.

"Administrator" means the person or firm designated by the City to administer the Special Taxes according to this Rate and Method of Apportionment of Special Tax.

"Annual Escalation Factor" means the annual percentage increase in the McGraw-Hill Engineering News Record Construction Cost Index (ENR CCI) for the San Francisco area from January of the previous year to January of the year that the Special Tax is levied. In the event that the ENR CCI defined above is no longer reported, the City Council shall select a similar index to replace it.

"Assessor's Parcel" or **"Parcel"** means a lot or parcel shown in an Assessor's Parcel Map with an assigned Assessor's Parcel number.

"Assessor's Parcel Map" means an official map of the County Assessor designating parcels by Assessor's Parcel number.

"Authorized Services" means the public services authorized to be funded by CFD No. 2014-2 as set forth in the documents adopted by the City Council when the CFD was formed.

"CFD" or **"CFD No. 2014-2"** means the City of Rancho Cordova Community Facilities District No. 2014-2 (Street, Lighting and Landscaping Maintenance).

"City" means the City of Rancho Cordova.

"City Council" means the City Council of the City of Rancho Cordova, acting as the legislative body of CFD No. 2014-2.

"Commercial Property" means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for a commercial establishment which includes, but is not limited to, retail stores, clothing stores, book stores, convenience stores, drug stores, professional services (i.e., barber shops, dry cleaners), restaurants, supermarkets, hospitals, movie theaters, appliance and electronics stores, home supply stores, auto parts stores, and other retail uses. The City shall make the determination if a Parcel is Commercial Property.

"County" means the County of Sacramento.

"Decorative Lighting Parcel" means any Parcel of Developed Property that is determined by the City to have or benefit from decorative lighting features.

"Developed Property" means, in any Fiscal Year, all Parcels of Taxable Property for which a use permit or building permit for new construction of a residential or non-residential structure (which shall not include a permit issued solely for construction of the foundation if another permit remains to be issued for vertical construction of the building) was issued prior to June 30 of the preceding Fiscal Year.

"Fiscal Year" means the period starting on July 1 and ending on the following June 30.

"Hotel Property" means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for a structure that constitutes a place of lodging providing sleeping accommodations and related facilities for travelers.

"Industrial Property" means, in any Fiscal Year, all Developed Property for which a building permit or use permit has been issued for construction of an industrial, manufacturing, or warehousing structure. The City shall make the determination if a Parcel is Industrial Property.

"Maximum Special Tax" means the greatest amount of Special Tax that can be levied on an Assessor's Parcel in any Fiscal Year determined in accordance with Section C below.

"Multi-Family Property" means, in any Fiscal Year, all Parcels of Developed Property for which a building permit or use permit has been issued for construction of a residential structure with five (5) or more Units that share a single Assessor's Parcel number, all of which are offered for rent to the general public and cannot be purchased by individual homebuyers.

"Non-Residential Property" means, collectively, Commercial Property, Hotel Property, Industrial Property, and Office Property.

"Office Property" means, in any Fiscal Year, all Parcels of Developed Property for which a building permit or use permit has been issued for a building in which professional, banking, insurance, real estate, administrative or in-office medical or dental activities are conducted. The City shall make the determination if a Parcel is Office Property.

"Ordinary Use Parcel" means any Parcel of Taxable Property that is not an Additional Load Parcel, Decorative Lighting Parcel, Residential Alley Parcel, Additional Load and Decorative Lighting Parcel, or Residential Alley and Decorative Lighting Parcel.

"Proportionately" means that the ratio of the actual Special Tax levy to the Maximum Special Tax is equal for all Parcels of Developed Property.

"Public Property" means any property within the boundaries of CFD No. 2014-2 that is owned by the federal government, State of California, County, City, or other public agency.

"Residential Alley and Decorative Lighting Parcel" means any Parcel that is determined by the City to be both a Residential Alley Parcel and a Decorative Lighting Parcel.

"Residential Alley Parcel" means any Parcel of Residential Property that is determined by the City to have residential alleys that are part of the public roadways.

"Residential Property" means, collectively, Single Family Attached Property, Single Family Detached Property, and Multi-Family Property.

"Single Family Attached Property" means, in any Fiscal Year, all Parcels of Developed Property for which a building permit was issued for construction of a residential structure consisting of two (2) to four (4) Units that share common walls, have separate Assessor's Parcel numbers assigned to them (except for a duplex unit, which may share an Assessor's Parcel with another duplex unit), and are offered as for-sale Units (which shall still be the case even if the Units are purchased and subsequently offered for rent by the owner of the Unit(s)), including such residential structures that

meet the statutory definition of a condominium contained in Civil Code Section 1351.

"Single Family Detached Property" means, in any Fiscal Year, all Parcels of Developed Property for which a building permit was issued for construction of a Unit that does not share a common wall with another Unit.

"Soundwall Parcel" means any Parcel of Developed Property whose tract boundary is encompassed by soundwalls maintained within the CFD.

"Special Tax Requirement" means the amount of revenue needed in any Fiscal Year to pay for the following: (i) Authorized Services, (ii) Administrative Expenses, and (iii) amounts needed to cure any delinquencies in the payment of Special Taxes which have occurred or (based on delinquency rates in prior years) may be expected to occur in the Fiscal Year in which the tax will be collected.

"Special Tax" means a special tax levied in any Fiscal Year on property within CFD No. 2014-2 to pay the Special Tax Requirement.

"Square Foot," "Square Footage," or **"Square Feet"** means the building square footage reflected on the original building permit issued for construction of a building.

"Taxable Property" means all Assessor's Parcels within the boundaries of CFD No. 2014-2 which are not exempt from the Special Tax pursuant to law or Section E below.

"Taxable Public Property" means, in any Fiscal Year, all Assessor's Parcels in CFD No. 2014-2 that had, in prior Fiscal Years, been taxed as Developed Property and subsequently came under the ownership of a public agency.

"Tax Zone" means a mutually exclusive tax zone identified in Attachment 1 of this Rate and Method of Apportionment of Special Tax, as may be updated to include new Parcels or new tax zones added to the CFD as a result of future annexations.

"Unit" means an individual single-family detached unit or an individual residential unit within a duplex, triplex, fourplex, townhome, condominium, or apartment structure. Unit shall also mean a rentable single hotel room or rentable unit on a Parcel of Hotel Property.

B. DATA COLLECTION FOR ANNUAL TAX LEVY

Each Fiscal Year, the Administrator shall identify the current Assessor's Parcel number for all Parcels of Taxable Property within CFD No. 2014-2 and shall determine within which Tax Zone each Assessor's Parcel is located. Upon each annexation of property into CFD No. 2014-2, the Administrator shall update Attachment 1 to include the new Assessor's Parcel number(s). In addition, for all Parcels of Developed Property, if applicable to the Tax Zone in which the Parcels are located, the Administrator shall determine if each Parcel is an Ordinary Use Parcel, an

Additional Load Parcel, a Residential Alley Parcel, a Decorative Lighting Parcel, an Additional Load and Decorative Lighting Parcel, or a Residential Alley and Decorative Lighting Parcel.

Based on review of building permit records for property within the CFD, the Administrator shall determine which Parcels in the CFD are Developed Property for purposes of levying the Special Tax pursuant to Section D below. For Single Family Attached Property, Multi-Family Property, and Hotel Property, the number of Units shall be determined by referencing the condominium plan, apartment plan, site plan or other development plan for the property. For Residential Property, the Administrator shall determine the Square Footage of each Unit. For Non-Residential Property, the Administrator shall determine the Acreage of, and Square Footage on, each Parcel.

If a Parcel in the CFD is rezoned prior to such Parcel becoming Developed Property, the City may in its sole discretion, move the Parcel to a different Tax Zone based on the rezone. If a Parcel rezones after the Parcel has been taxed as Developed Property in prior Fiscal Years, the City can either continue to apply the Maximum Special Tax to the Parcel that had applied prior to the rezone or, in the City's sole discretion, allow for the Parcel to be moved to a different Tax Zone based on the rezone.

In any Fiscal Year, if it is determined that (i) a parcel map for a portion of property in CFD No. 2014-2 was recorded after January 1 of the prior Fiscal Year (or any other date after which the Assessor will not incorporate the newly-created Parcels into the then current tax roll), (ii) because of the date the parcel map was recorded, the Assessor does not yet recognize the new Parcels created by the parcel map, and (iii) one or more of the newly-created Parcels meets the definition of Developed Property, the Administrator shall calculate the Special Tax for the property affected by recordation of the parcel map by determining the Special Tax that applies separately to each newly-created Parcel, then applying the sum of the individual Special Taxes to the Parcel that was subdivided by recordation of the parcel map.

C. MAXIMUM SPECIAL TAX

1. All Tax Zones

The following Maximum Special Taxes apply to all Parcels of Developed Property within each Tax Zone of CFD No. 2014-2, unless otherwise specified in Attachment 1.

a. Ordinary Use Parcels

MAXIMUM SPECIAL TAXES
ORDINARY USE PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$374.78 per Unit
Single Family Attached Property	$296.07 per Unit
Multi-Family Property	$213.62 per Unit
Commercial Property	$559.17 per 1,000 Square Feet
Hotel Property	$221.12 per Unit
Industrial Property	$168.65 per 1,000 Square Feet
Office Property	$558.42 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

b. Residential Alley Parcels

MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$406.87 per Unit
Single Family Attached Property	$321.43 per Unit
Multi-Family Property	$231.92 per Unit
Commercial Property	N/A
Hotel Property	N/A
Industrial Property	N/A
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

c. Decorative Lighting Parcels

MAXIMUM SPECIAL TAXES
DECORATIVE LIGHTING PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$380.51 per Unit
Single Family Attached Property	$300.60 per Unit
Multi-Family Property	$216.89 per Unit
Commercial Property	$567.72 per 1,000 Square Feet
Hotel Property	$224.50 per Unit
Industrial Property	$171.23 per 1,000 Square Feet
Office Property	$566.96 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

d. Additional Load Parcels

MAXIMUM SPECIAL TAXES
ADDITIONAL LOAD PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	N/A
Single Family Attached Property	N/A
Multi-Family Property	N/A
Commercial Property	$580.39 per 1,000 Square Feet
Hotel Property	N/A
Industrial Property	$175.05 per 1,000 Square Feet
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

e. Soundwall Parcels

MAXIMUM SPECIAL TAXES
SOUNDWALL PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$390.71 per Unit
Single Family Attached Property	$308.66 per Unit
Multi-Family Property	$222.70 per Unit
Commercial Property	$582.94 per 1,000 Square Feet
Hotel Property	$230.52 per Unit
Industrial Property	$175.82 per 1,000 Square Feet
Office Property	$582.16 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

f. Additional Load and Decorative Lighting Parcels

MAXIMUM SPECIAL TAXES
ADDITIONAL LOAD AND DECORATIVE LIGHTING PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	N/A
Single Family Attached Property	N/A
Multi-Family Property	N/A
Commercial Property	$588.94 per 1,000 Square Feet
Hotel Property	N/A
Industrial Property	$177.63 per 1,000 Square Feet
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

g. Residential Alley and Decorative Lighting Parcels

MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY AND DECORATIVE LIGHTING PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$412.60 per Unit
Single Family Attached Property	$325.96 per Unit
Multi-Family Property	$235.18 per Unit
Commercial Property	N/A
Hotel Property	N/A
Industrial Property	N/A
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

h. Residential Alley and Soundwall Parcels

MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY AND SOUNDWALL PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$425.31 per Unit
Single Family Attached Property	$336.00 per Unit
Multi-Family Property	$242.43 per Unit
Commercial Property	N/A
Hotel Property	N/A
Industrial Property	N/A
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

i. Decorative Lighting and Soundwall Parcels

MAXIMUM SPECIAL TAXES
DECORATIVE LIGHTING AND SOUNDWALL PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$396.30 per Unit
Single Family Attached Property	$313.07 per Unit
Multi-Family Property	$225.89 per Unit
Commercial Property	$591.27 per 1,000 Square Feet
Hotel Property	$233.81 per Unit
Industrial Property	$178.33 per 1,000 Square Feet
Office Property	$590.48 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

j. Residential Alley, Decorative Lighting, and Soundwall Parcels

MAXIMUM SPECIAL TAXES
RESIDENTIAL ALLEY, DECORATIVE LIGHTING AND SOUNDWALL PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Maximum Special Tax
Single Family Detached Property	$428.15 per Unit
Single Family Attached Property	$338.23 per Unit
Multi-Family Property	$244.04 per Unit
Commercial Property	N/A
Hotel Property	N/A
Industrial Property	N/A
Office Property	N/A

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

D. METHOD OF LEVY AND COLLECTION OF SPECIAL TAX

Each Fiscal Year, the Special Tax shall be levied as follows until the amount of the levy equals the Special Tax Requirement for that Fiscal Year:

First: The Special Tax shall be levied proportionately on each Parcel of Developed Property up to 100% of the Maximum Special Tax determined for each category of Developed Property within the CFD and each Tax Zone until the amount levied is equal to the Special Tax Requirement for the Fiscal Year.

Second: If additional revenue is needed after the first step has been completed, the Special Tax shall be levied proportionately on each Parcel of Taxable Public Property up to 100% of the Maximum Special Tax that would have applied to the Parcel had the Parcel not become Public Property until the amount levied is equal to the Special Tax Requirement for the Fiscal Year.

The Special Tax for CFD No. 2014-2 shall be collected at the same time and in the same manner as ordinary ad valorem property taxes provided, however, that the City may (under the authority of Government Code Section 53340) collect Special Taxes at a different time or in a different manner if necessary to meet CFD No. 2014-2 financial obligations and the Special Tax shall be equally subject to foreclosure if delinquent.

E. LIMITATIONS

Notwithstanding any other provision of this Rate and Method of Apportionment of Special Tax, no Special Tax shall be levied on (i) any Parcel of Public Property that is not Taxable Public Property, and (ii) any Parcel in CFD No. 2014-2 that is not Developed Property.

F. DURATION OF SPECIAL TAX

The Special Tax shall be levied in perpetuity to fund the Special Tax Requirement, unless no longer required as determined at the sole discretion of the City Council.

G. INTERPRETATION OF SPECIAL TAX FORMULA

The City reserves the right to make minor administrative and technical changes to this document that do not materially affect the Rate and Method of Apportionment of Special Taxes. In addition, the interpretation and application of any section of this document shall be left to the City's discretion. The City may make interpretations by ordinance or resolution for purposes of clarifying any vagueness or ambiguity in this Rate and Method of Apportionment of Special Taxes.

ATTACHMENT 1

CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2014-2
(STREET, LIGHTING AND LANDSCAPING MAINTENANCE)

IDENTIFICATION OF TAX ZONES

TAX ZONE 1

Assessor's Parcels Included in Tax Zone 1 *	Fiscal Year In Which Property Was Added to CFD No. 2014-2
067-0030-066 067-0030-067 067-0030-069 067-0030-070 067-1020-001 067-1020-002	2013-14

*** The property identified by the Assessor's Parcel Numbers listed above shall remain part of the identified Tax Zone regardless of changes in the configuration of the Assessor's Parcels or changes to APNs in future Fiscal Years. As APNs change, the City may update Attachment 1 to reflect the most current APNs and Tax Zones consistent with the categories of Developed Property set forth in the Rate and Method of Apportionment of Special Tax for CFD No. 2014-2.**

Tax Zone 1 – Maximum Special Taxes

The following Maximum Special Taxes apply to all Parcels of Developed Property within Tax Zone 1 of CFD No. 2014-2. These Maximum Special Taxes do not incorporate the long-term maintenance activities which are included as a part of CFD No. 2014-1 (Montelena).

MAXIMUM SPECIAL TAXES
ORDINARY USE PARCELS
(FISCAL YEAR 2014-15)

Land Use Class	Ordinary Use Parcels Maximum Special Tax Zone 1	Soundwall and Decorative Lighting Parcels Maximum Special Tax Zone 1
Single Family Detached Property	$275.49 per Unit	$279.85 per Unit
Single Family Attached Property	$217.64 per Unit	$221.08 per Unit
Multi-Family Property	$157.03 per Unit	$159.52 per Unit
Commercial Property	$210.00 per 1,000 Square Feet	$210.00 per 1,000 Square Feet
Hotel Property	$162.54 per Unit	$165.11 per Unit
Industrial Property	$123.97 per 1,000 Square Feet	$125.93 per 1,000 Square Feet
Office Property	$210.00 per 1,000 Square Feet	$210.00 per 1,000 Square Feet

On each July 1, commencing July 1, 2015, the Maximum Special Taxes shown above shall be increased by the Annual Escalation Factor.

MEMORANDUM

ITEM 9.12.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Michelle Mingay, Senior Finance Analyst

SUBJECT: **A RESOLUTION APPROVING THE ANNEXATION OF THE GRANTLINE 220 PROJECT INTO THE CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2013-2 (POLICE SERVICES)**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

In March 2022, the property owners signed a unanimous approval of the annexation to CFD No. 2013-2. Adoption of the Resolution would approve Annexation Map No. 9 for the Grantline 220 project into Community Facilities District No. 2013-2 (Police Services) (hereinafter "CFD No. 2013-2"), and directs the Clerk to execute and record the Boundary Map and Notice of Special Tax Lien for the project.

BACKGROUND

On December 17, 2012, the City adopted a resolution of intention to establish a Community Facilities District (CFD) and Future Annexation Area for Citywide police services. On January 22, 2013, the City adopted the resolution forming CFD No. 2013-2 pursuant to the Mello-Roos Community Facilities Act of 1982 (State of California Government Code Section 5311 et seq.) (the "Act"). The action defining the Future Annexation Area for the District provided for a more efficient process for the annexation of property when the property owners have provided for their unanimous consent. Defining the Future Annexation Area provided the resolution of intention, noticing, and public hearing for the entire Future Annexation Area so these steps do not need to be repeated for each annexation.

The annexation process for projects within the Future Annexation Area has been simplified to receiving a petition and waiver from the property owner(s), the City Council approving the Annexation Boundary Map by resolution, followed by the recording of the Annexation Map and Notice of Special Tax Lien by the City Clerk.

FISCAL IMPACT AND FUNDING SOURCE

The project included in this action was conditioned to annex to provide funding for police services. This condition will be met with the annexation of the project into CFD No. 2013-2.

ATTACHMENT(S)

1. Resolution
2. Exhibit A - Annexation Boundary Map
3. Exhibit B - Amndt to Notice Spec Tax Ln Police Tax

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 BOUNDARY MAP FOR THE GRANTLINE 220 ANNEXATION INTO THE CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2013-2 (POLICE SERVICES)

WHEREAS, the Conditions of Approval for the Grantline 220 Subdivision requires the property owner/applicant to provide funding for police services; and

WHEREAS, on December 17, 2012, the City adopted Resolution No. 122-2012 declaring its intention to establish Community Facilities District No. 2013-2 (Police Services) (the "District") and Future Annexation Area. On January 22, 2013, the City adopted Resolution No. 10-2013 forming CFD No. 2013-2 pursuant to the Mello-Roos Community Facilities Act of 1982 (State of California Government Code Section 5311 et seq.) (the "Act"); and

WHEREAS, the action defining the Future Annexation Area for the District provided for a more efficient process for the annexation of property when the property owners have provided for their unanimous consent such that the annexation process for projects within the Future Annexation Area has been reduced to receiving a petition, consent and waiver from the property owner(s); and

WHEREAS, in March 2022, the property owner executed a unanimous approval form which irrevocably consents to and votes in favor of the annexation of the property to the District and the levy of the special tax on the property to finance the services of the CFD in accordance with the Rate and Method of the District; and

WHEREAS, in the case of annexation proceedings, pursuant to Streets and Highways Code Section 3110.5 a separate map of the area proposed to be annexed is required to be prepared and adopted; and

WHEREAS, City staff has caused to be prepared Annexation Map No. 9 for the property known as the Grantline 220 project, Exhibit A attached hereto, for the annexation of the property to CFD No. 2013-2 (Police Services).

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, as follows:

1. The Council finds and determines the above recitals are true and correct.

2. Council approves Annexation Map No. 9 and finds and determines that the territory shown in the Annexation Map is hereby added to and made a part of the District with full legal effect.

3. The City Clerk is directed to execute and record Annexation Map No. 9 in the office of the County Recorder of Sacramento County not later than 15 days after the adoption of this resolution.

4. The City Council finds and determines that a special tax shall be levied within the Territory to be annexed and which special tax shall be the same as the tax to be levied within the District. Collection of said tax shall commence as outlined in the rate and method of apportionment of said tax and shall be as set forth in the Resolution of Formation of the District.

5. The City Clerk is directed to execute and record a Notice of Special Tax Lien in substantially the same form as shown in Exhibit B attached hereto, in the office of the County Recorder of Sacramento County not later than 15 days after recordation of the Annexation Map No. 9.

6. The City Council finds and determines that adoption of this Resolution is not a "project" under the California Environmental Quality Act, because the Resolution does not involve any commitment to a specific project which may result in a potentially significant physical impact on the environment, as contemplated by Title 14, California Code of Regulations, Section 15378(b)(4).

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

AYES:

NOES:

ABSENT:

ABSTAIN:

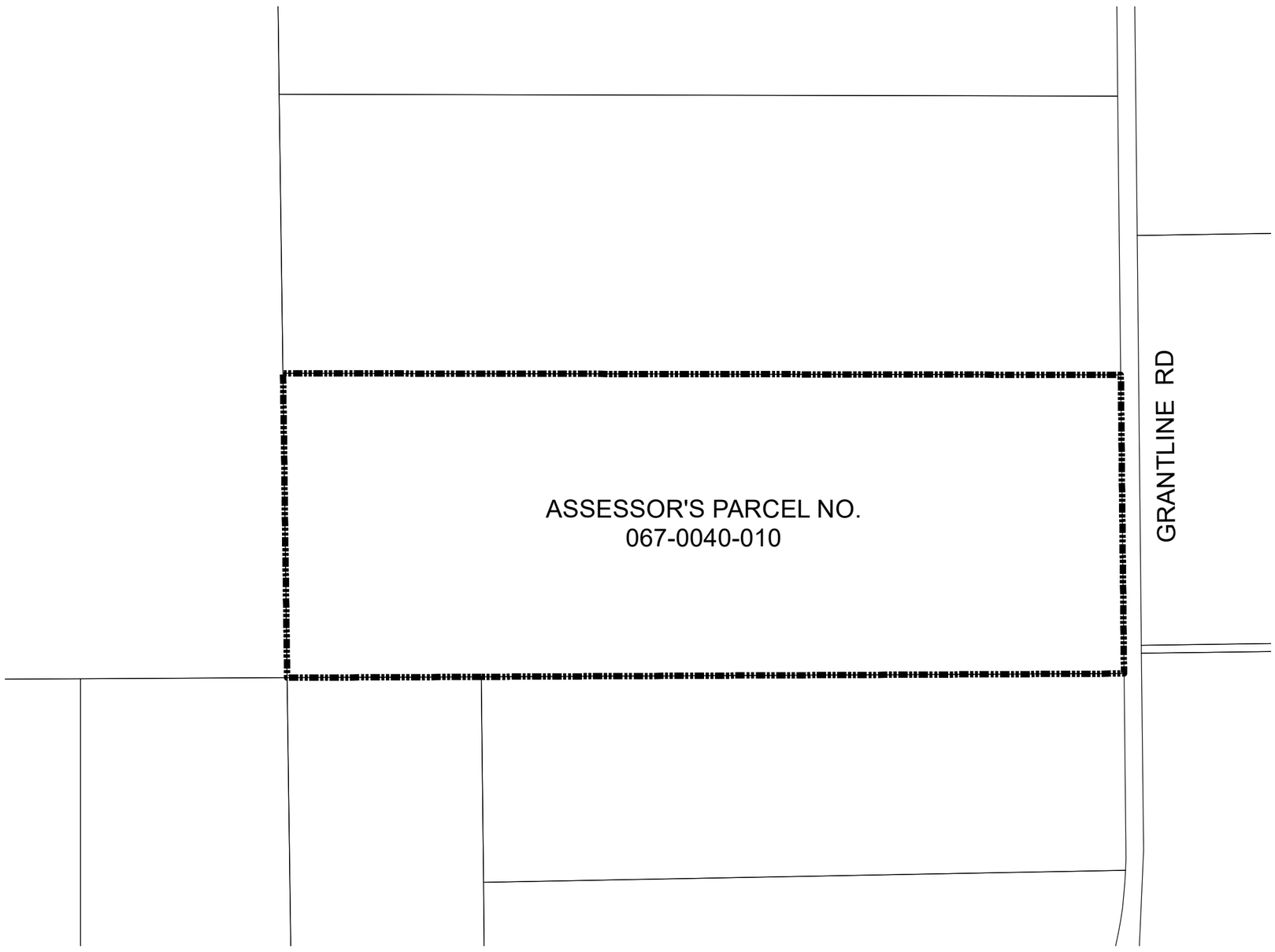
ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

PROPOSED BOUNDARY OF ANNEXATION 9 GRANTLINE 220 PROJECT TO

CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2013-2
(POLICE SERVICES)
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA



CLERK'S MAP STATEMENT

FILED IN THE OFFICE OF THE CITY CLERK OF THE CITY OF RANCHO CORDOVA THIS _____ DAY OF _____ 2022.

_____
CITY CLERK OF THE CITY OF RANCHO CORDOVA

CLERK'S MAP STATEMENT

I HEREBY CERTIFY THAT THE AREA SHOWN ON THIS MAP OF THE PROPOSED ANNEXATION 9 TO COMMUNITY FACILITIES DISTRICT NO. 2013-2, (POLICE SERVICES), CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA, WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AT A REGULARLY SCHEDULED MEETING THEREOF, HELD ON THE ____ DAY OF _____ 2022. BY ITS RESOLUTION NO. _____.

_____
CITY CLERK OF THE CITY OF RANCHO CORDOVA

COUNTY RECORDER'S FILING STATEMENT

FILED THIS _____ DAY OF _____ 2022. AT THE HOUR OF _____ O'CLOCK ____.M. IN BOOK _____ OF MAPS OF ASSESSMENT AND COMMUNITY FACILITIES DISTRICTS PAGE NO. _____ IN THE OFFICE OF THE COUNTY RECORDER IN THE COUNTY OF SACRAMENTO, STATE OF CALIFORNIA.

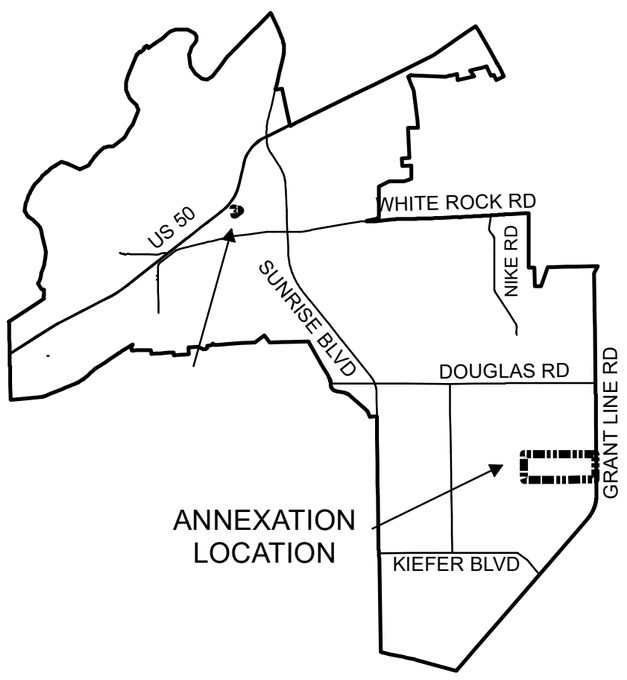
DONNA ALLRED
COUNTY RECORDER OF THE COUNTY OF SACRAMENTO, CALIFORNIA

BY: _____
DEPUTY

FILE: _____

REFERENCE THE SACRAMENTO COUNTY ASSESSOR'S MAPS FOR A DETAILED DESCRIPTION OF PARCEL LINES AND DIMENSIONS

VICINITY MAP



Legend

Annexation Boundary

1 " = 700 '

HARRIS & ASSOCIATES
22 EXECUTIVE PARK, SUITE 200
IRVINE, CALIFORNIA 92614
800-827-4901

PROPOSED BOUNDARY MAP

City of Rancho Cordova
Community Facilities District No. 2013-2
Annexation 9 (Police Services)
County of Sacramento, California

Sheet 1 **of** 1

RECORDING REQUESTED BY AND
AFTER RECORDATION RETURN TO:

City Clerk
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95363

AMENDMENT NO. 9 TO NOTICE OF SPECIAL TAX LIEN

CITY OF RANCHO CORDOVA
Community Facilities District No. 2013-2
(Police Services)

Annexation No. 9

Pursuant to the requirements of Section 3117.5 of the Streets and Highways Code of California and the Mello-Roos Community Facilities Act of 1982, as amended, section 53311, *et. seq*., of the California Government Code (the "Act"), the undersigned City Clerk of the City of Rancho Cordova (the "City"), County of Sacramento, State of California, hereby gives notice that a lien to secure payment of a special tax, which the City is authorized to levy, is hereby imposed on the property described herein. The special tax secured by this lien is authorized to be levied for the purpose of paying for certain municipal services set forth in that certain Notice of Special Tax Lien heretofore recorded in the Office of the County Recorder of the County of Sacramento, State of California on March 12, 2013 as Document No. 20130312 page 0318 to which recorded Notice of Special Tax Lien reference is hereby made and the provisions of which are hereby incorporated by this reference.

This Amendment No. 9 to Notice of Special Tax Lien amends the Notice of Special Tax Lien to add to the territory of the CFD. The territory and future annexation area included in the original CFD is set forth in the map of the CFD heretofore recorded in the Sacramento County Recorder's Office at Book 114 of Maps of Assessment and Community Facilities Districts at Page 18 as Document No. 20130102PG1208, (the "Original Boundary Map") to which map reference is hereby made. The territory to be added from the future annexation area is that certain real property identified in the map of the Annexed Territory recorded in the Sacramento County Recorder's Office at Book ____, at Page ____ as Document No. _____, which map together with the Original Boundary Map are now the final boundary maps of the CFD including the Annexed Territory.

This annexed property is placed in Tax Zone 1 for purposes of computation of the Special Tax.

The assessor's tax parcel(s) numbers of all parcels or any portion thereof which are included in this Amendment No. 9 to Notice of Special Tax Lien, together with the name(s) of the owner(s) thereof, as they appear on the latest secured assessment roll as of the date of recording hereof or as are otherwise known to the Authority are as set forth in Exhibit A hereto, and by such reference hereby made a part hereof. The levy is hereby imposed on the property described herein.

For further information concerning the current and estimated future tax liability of owners or purchasers of real property subject to this special tax lien, interested persons should contact the Finance Officer of the City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, CA 95670 (telephone number: 916-851-8738).

Dated: As of _____, 2022

By: _____
Stacy Leitner, City Clerk
City of Rancho Cordova

ATTACHMENT 3
Exhibit B to the Resolution

EXHIBIT A

CITY OF RANCHO CORDOVA
Community Facilities District No. 2013-2
(Police Services)

Annexation No. 9

ASSESSOR'S PARCEL NUMBERS AND OWNERS OF LAND

Assessor's Parcel No(s).	Name(s) of Property Owners
067-0040-010	Lennar Homes of California, LLC A California limited liability company A successor-in-interest by conversion to Lennar Homes of California, Inc.

MEMORANDUM

ITEM 9.13.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Elizabeth Sparkman, Community Development Director
Dalia Fadl, Principal Engineer

SUBJECT: **A RESOLUTION APPROVING THE ANNEXATION OF THE GRANTLINE 220 PROJECT TO THE CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2018-2 (COMMUNITY PLACES AND NEIGHBORHOOD GREENS**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would approve Annexation Boundary Map No. 4 for the Grantline 220 project to Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) and approves the recording of the Annexation Boundary Map and the Notice of Special Tax Lien.

BACKGROUND

On August 6, 2018, the City adopted a Resolution of Intention to establish a Community Facilities District (CFD) and Future Annexation Area for citywide maintenance of community places and neighborhood greens. The special tax contributes to the cost of the operation and maintenance of public improvements, including community plazas, neighborhood greens, and regional trails. On September 17, 2018, the City adopted the resolution forming CFD No. 2018-2 pursuant to the Mello-Roos Community Facilities Act of 1982 (State of California Government Code Section 5311 et seq.) (the “Act”). The action defining the Future Annexation Area for the District provided for a more efficient process for the annexation of property when the property owners have provided unanimous consent. Defining the Future Annexation Area provided the resolution of intention, noticing, and public hearing for the entire Future Annexation Area, so these steps do not need to be repeated for each annexation.

The annexation process for projects within the Future Annexation Area is streamlined to receiving a petition and waiver from the property owner(s), the City Council approving the Annexation Boundary Map by resolution, followed by the recording of the Annexation Boundary Map and Notice of Special Tax Lien by the City Clerk.

DISCUSSION

The project included in this action was conditioned to annex to CFD No. 2018-2 to provide funding for maintenance of community places and neighborhood greens, including community plazas and bicycle trails, and to pay for the capital replacement of said facilities. In March 2022, the property owners signed a unanimous approval of the annexation to CFD No. 2018-2 (see Attachment 4). Adoption of the attached Resolution approves Annexation Boundary Map No. 4 for the project and directs the City Clerk to execute and record the Annexation Boundary Map and Notice of Special Tax Lien for the project.

FISCAL IMPACT AND FUNDING SOURCE

There is no impact to the General Fund.

ATTACHMENT(S)

1. Resolution
2. Exhibit A to the Resolution - Annexation Boundary Map
3. Exhibit B to the Resolution - Notice of Special Tax
4. Unanimous Approval

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 BOUNDARY MAP FOR THE GRANTLINE 220 PROJECT ANNEXATION TO THE CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2018-2 (COMMUNITY PLACES AND NEIGHBORHOOD GREENS)

WHEREAS, the Conditions of Approval for the Grantline 220 project requires the property owner/applicant to participate in the provision of funding to provide fair share maintenance of Community Places and Neighborhood Greens associated with the project; and

WHEREAS, on August 6, 2018, the City adopted a Resolution of Intention to establish Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) (the "District") and Future Annexation Area for maintenance of community places and neighborhood greens. On September 17, 2018, the City adopted a Resolution forming CFD No. 2018-2 pursuant to the Mello-Roos Community Facilities Act of 1982 (State of California Government Code Section 5311 et seq.) (the "Act"); and

WHEREAS, the action defining the Future Annexation Area for the District provided for a more efficient process for the annexation of property when the property owners have provided for their unanimous consent such that the annexation process for projects within the Future Annexation Area has been reduced to receiving a petition, consent and waiver from the property owner(s); and

WHEREAS, in March 2022, the property owner(s)s executed a unanimous approval form which irrevocably consents to and votes in favor of the annexation of the property to the District and the levy of the special tax on the property to finance the services of the CFD in accordance with the Rate and Method of the District; and

WHEREAS, in the case of annexation proceedings, pursuant to Streets and Highways Code Section 3110.5 a separate map of the area proposed to be annexed is required to be prepared and adopted; and

WHEREAS, City staff has caused to be prepared Annexation Boundary Map No. 4 for the property known as the Grantline 220 project, Exhibit A attached hereto, for the annexation of the property to No. 2018-2 (Community Places and Neighborhood Greens).

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA as follows:

1. The Council so finds and determines the above recitals are true and correct.
2. Council approves Annexation Boundary Map No. 4 and finds and determines that the territory shown in the Annexation Boundary Map is hereby added to and made a part of the District with full legal effect.
3. The City Clerk is directed to execute and record Annexation Boundary Map No. 4 in the office of the County Recorder of Sacramento County not later than 15 days after the adoption of this Resolution.
4. The City Council finds and determines that a special tax shall be levied within the

Territory to be annexed and which special tax shall be the same as the tax to be levied within the District. Collection of said tax shall commence in Fiscal Year 2022-2023, and the rate and method of apportionment of said tax shall be as set forth in the Resolution of Formation of the District.

5. The City Clerk is directed to execute and record a Notice of Special Tax Lien in substantially the same form as shown in Exhibit B attached hereto, in the office of the County Recorder of Sacramento County not later than 15 days after recordation of the Annexation Boundary Map No. 4.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

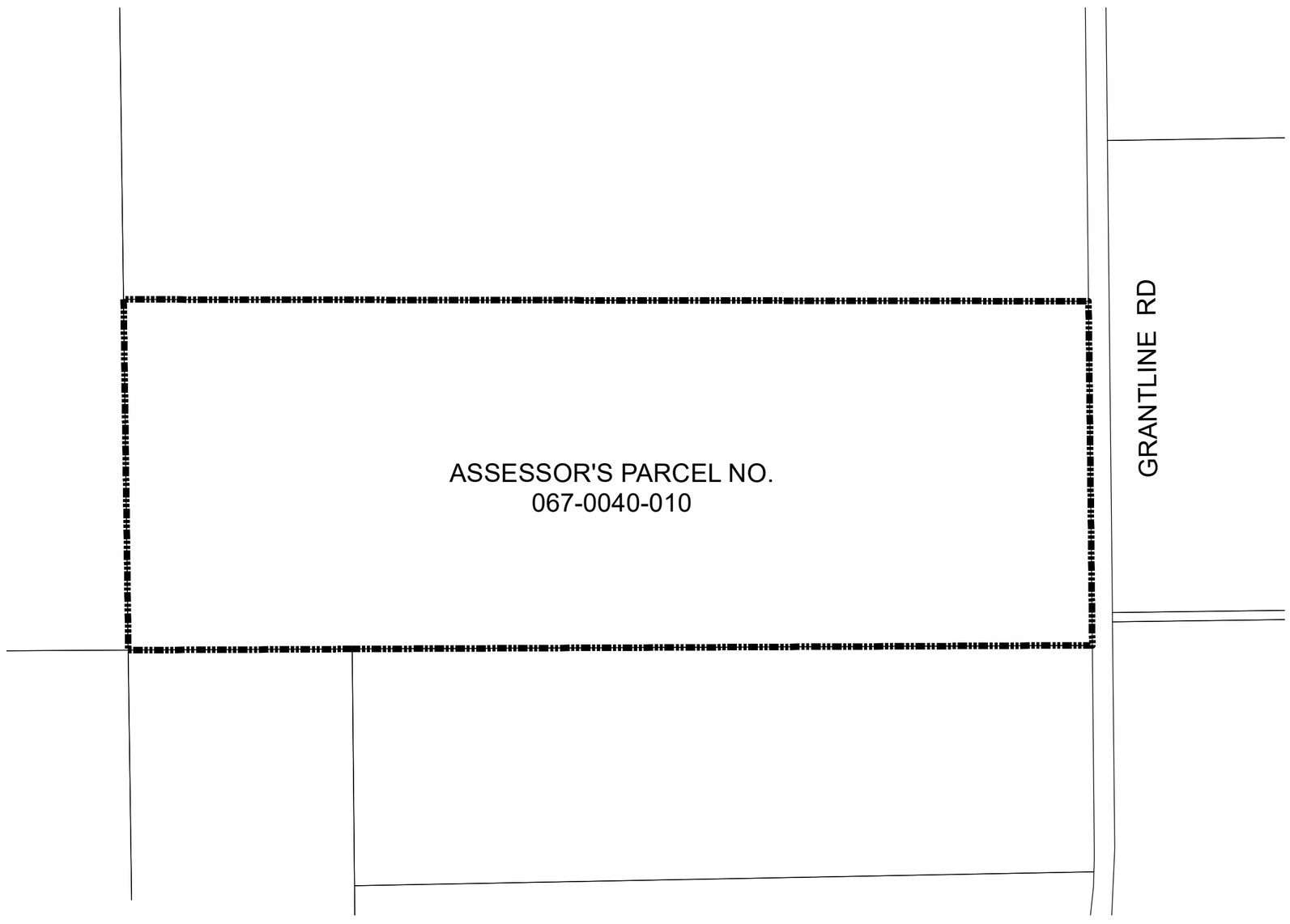
ATTEST:

_____
Donald Terry, Mayor

_____
Stacy Leitner, CMC
City Clerk

PROPOSED BOUNDARY OF ANNEXATION 4 GRANTLINE 220 PROJECT TO CITY OF RANCHO CORDOVA COMMUNITY FACILITIES DISTRICT NO. 2018-2 (COMMUNITY PLACES AND NEIGHBORHOOD GREENS)

COUNTY OF SACRAMENTO, STATE OF CALIFORNIA



CLERK'S MAP STATEMENT

FILED IN THE OFFICE OF THE CITY CLERK OF THE CITY OF RANCHO CORDOVA THIS _____ DAY OF _____ 2022.

_____
CITY CLERK OF THE CITY OF RANCHO CORDOVA

CLERK'S MAP STATEMENT

I HEREBY CERTIFY THAT THE AREA SHOWN ON THIS MAP OF THE PROPOSED ANNEXATION 4 TO COMMUNITY FACILITIES DISTRICT NO. 2018-2, (COMMUNITY PLACES AND NEIGHBORHOOD GREENS), CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA, WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AT A REGULARLY SCHEDULED MEETING THEREOF, HELD ON THE ____ DAY OF _____ 2022. BY ITS RESOLUTION NO. _____.

_____
CITY CLERK OF THE CITY OF RANCHO CORDOVA

COUNTY RECORDER'S FILING STATEMENT

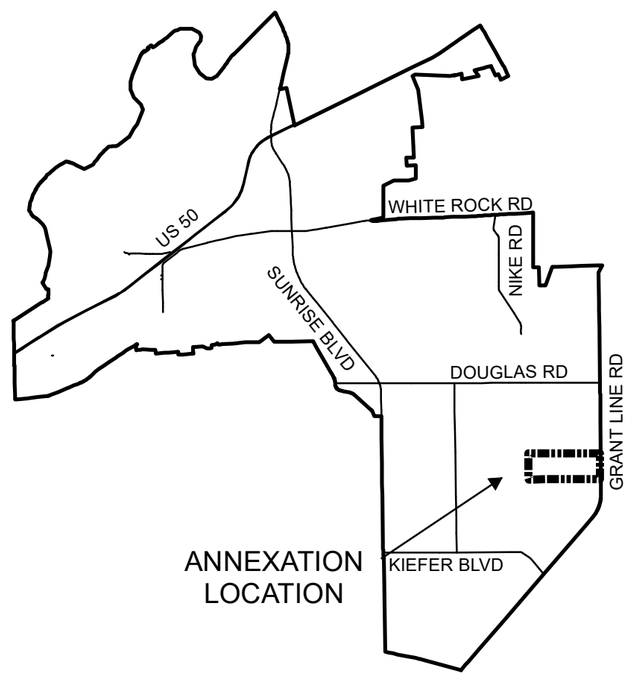
FILED THIS _____ DAY OF _____ 2022. AT THE HOUR OF _____ O'CLOCK ____.M. IN BOOK _____ OF MAPS OF ASSESSMENT AND COMMUNITY FACILITIES DISTRICTS PAGE NO. _____ IN THE OFFICE OF THE COUNTY RECORDER IN THE COUNTY OF SACRAMENTO, STATE OF CALIFORNIA.

DONNA ALLRED
COUNTY RECORDER OF THE COUNTY OF SACRAMENTO, CALIFORNIA

BY: _____
DEPUTY

FILE: _____

VICINITY MAP



REFERENCE THE SACRAMENTO COUNTY ASSESSOR'S MAPS FOR A DETAILED DESCRIPTION OF PARCEL LINES AND DIMENSIONS

Legend

Annexation Boundary

1 " = 625 '

HARRIS & ASSOCIATES
22 EXECUTIVE PARK, SUITE 200
IRVINE, CALIFORNIA 92614
800-827-4901

PROPOSED BOUNDARY MAP

City of Rancho Cordova
Annexation 4 (Grantline 220 Project)
Community Facilities District No. 2018-2
County of Sacramento, California

Sheet 1 of 1

RECORDING REQUESTED BY
AND WHEN RECORDED RETURN TO:

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, California 95670
Attention: City Clerk

AMENDED NOTICE OF SPECIAL TAX LIEN

COMMUNITY FACILITIES DISTRICT NO. 2018-2
(COMMUNITY PLACES AND NEIGHBORHOOD GREENS)
OF THE CITY OF RANCHO CORDOVA

Pursuant to the requirements of Section 3114.5 of the Streets and Highways Code and Section 53328.3 of the Government Code, the undersigned clerk of the legislative body of the City of Rancho Cordova (the "City"), State of California, hereby gives notice that a lien to secure payment of special taxes is hereby imposed by the City Council of the City. The special taxes secured by this lien are authorized to be levied for the purpose of providing services as described in Exhibit A attached hereto and hereby made a part hereof.

The special taxes are authorized to be levied within Annexation Boundary Map No. 4 (the "Annexed Area") of the City of Rancho Cordova Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) (the "District"), which has now been officially annexed to the District, and the lien of the special taxes are a continuing lien which shall secure each annual levy of the special taxes and which shall continue in force and effect until the special taxes cease to be levied and a notice of cessation of special taxes is recorded in accordance with Section 53330.5 of the Government Code.

The rate, method of apportionment, and manner of collection of authorized special tax is as set forth in Exhibit B attached hereto and hereby made a part hereof. The obligation to pay the special tax may not be permanently satisfied by way of prepayment of the special tax and the lien of the special tax cannot be canceled in this manner.

Notice is further given that upon the recording of this notice in the office of the county recorder, the obligation to pay the special tax levies shall become a lien upon all nonexempt real property within the District in accordance with Section 3115.5 of the Streets and Highways Code.

The name of the owner and the assessor's parcel number(s) of the real property included within the District and not exempt from the special tax are as set forth in Exhibit C attached hereto.

Reference is hereby made to the Notice of Special Tax Lien with respect to the District recorded on October 4, 2018, as Document No. 201810040991 page 15, in the office of the County Clerk & Recorder of the County of Sacramento, California, which contains a list of the then existing owners and assessor tax parcel numbers of the original boundaries of the District.

Reference is made to the boundary map of the District recorded on August 21, 2018, as Document No. 201808210674, at Book 126 of Maps of Assessment and Community Facilities Districts at Page No.19, in the office of the County Clerk & Recorder of the County of Sacramento, California, (the " Original Boundary Map"), and the map of the Annexed Territory recorded at Book 133, Page 4, Document No. 202103290292 in the Office of the County Recorder for the County of Sacramento, State of California, which map together with the Original Boundary Map and the boundary maps of record for all prior annexations, are now the final boundary maps of the Community Facilities District including the Annexed Territory.

For further information concerning the current and estimated future tax liability of owners or purchasers of real property subject to this special tax lien, interested persons should contact the Department of Public Works of the City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, California 95670, (916) 851-8710.

Dated: _____

_____
CITY CLERK OF THE CITY OF
RANCHO CORDOVA

EXHIBIT A

CITY OF RANCHO CORDOVA

COMMUNITY FACILITIES DISTRICT NO. 2018-2

(COMMUNITY PLACES AND NEIGHBORHOOD GREENS)

LIST OF FACILTIES AND SERVICES

The City of Rancho Cordova (the "City") is establishing Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) (the "CFD") to fund, in whole or in part, the following facilities and services (the terms "facilities" and "services" shall have the meaning as given in the Mello-Roos Community Facilities Act of 1982.

AUTHORIZED FACILITIES

The CFD is being established to fund the maintenance, operations, servicing, rehabilitation and replacement of CFD Facilities. The costs associated with the initial capital improvements required for the construction or installation of the Facilities are not included in the costs to be funded by the CFD. A general list of the Facilities to be maintained by the CFD include:

1. **Community Plazas.** Community Plazas are a component of the Community Places category of City Open Space, as defined in the City's Open Space Guidelines. Community Plazas are typically located in Village and Town Centers to provide areas for congregation, socializing and community events/activities. Two Community Plazas are planned for the CFD.

   Specific amenities will be determined on a site by site basis. Typical amenities may include, but are not limited to, expanded public gathering space; outdoor seating and shade structures; signage and lighting; trash and recycling receptacles; bicycle parking; features of interest such as fountains, art work, engaging landscapes and other unique structures/treatments; hardscape areas; and formal landscaping in planter boxes.

2. **Bicycle Trails.** Bicycle Trails are a component of the Green Infrastructure category of City Open Space as defined in the City's Open Space Guidelines. A system of Bicycle Trails, defined as the *Class I Bicycle Trails East of Sunrise Boulevard* in the City's Bicycle Trails Master Plan, is planned for the CFD. This system of trails will have an estimated 250,530 linear feet of bicycle trails (over 47 miles) that will be a part of the City's overall Bicycle Trail network.

   Primary trails are 16' in overall width (12' of asphalt pavement with a 2' shoulder on each side). Primary trails are typically located within a corridor of at least 50 feet in width, with larger widths up to 100 feet encouraged. Corridors of less than 50 feet in width may be accepted based on the unique opportunities

and constraints within a given development project. Secondary trails feed into primary trails and provide connections to significant corridors and local trails. Secondary trails are 14' in overall width (10' of asphalt pavement with a 2' shoulder on each side) and are typically located within a corridor of at least 35 feet in width, with larger widths encouraged.

Typical amenities for Bicycle Trails may include, but are not limited to, native and/or draught tolerant plants; railings and edge protections; grade separated crossings; signage and lighting; shade trees; and trailheads where trails begin or connect to other trails. Trailheads are small open space areas that may include benches; signage and lighting; trash and recycling receptacles; maps; and other elements to assist trail users.

3. **Neighborhood Greens.** Neighborhood Greens are the most commonly occurring component of the Community Places category of City Open Space, as defined in the City's Open Space Guidelines. Neighborhood Greens are small-scale urban and suburban open spaces serving as places to meet, gather, socialize, commune with nature or otherwise participate in passive recreation activities. Neighborhood Greens are typically located in small developed and landscaped areas generally within residential neighborhoods in new development areas.

   Specific amenities will be determined on a site by site basis. Typical amenities may include, but are not limited to, public gathering space; multi-purpose tables and shade structures; signage and lighting; trash and recycling receptacles; water fountains, barbeque areas and bicycle parking; walking paths, including those with special paving materials; landscape areas and hardscape areas; and distinguished areas with a special design feature such as tree variety or amenity.

4. **Other Facilities.** In addition to the facilities described above, the following features as described in the City's Open Space Guidelines may be maintained by the CFD:

Community Places	Green Infrastructure
Neighborhood Greens	Pedestrian Trails
Town Greens	Pedestrian Paseos
Community Gardens / Rose Gardens / Display Gardens	Utility Easements
Water Resources / Streams / Ponds / Lakes	Green Streets
Community Wide Open Space Facilities	Local Residential Street Landscape Enhancement
Outdoor Amphitheaters	Enhanced Detention Basins / Drainage Ways

Additionally, Facilities may include any other facilities permitted under the Mello-Roos Community Facilities Act of 1982, including the facilities described in Section 53313.5 of the California Government Code, as amended from time to time, provided that such facilities satisfy at least one of the following criteria: 1) augment, improve or expand existing CFD Facilities that are primarily for the benefit of the CFD; or 2) repair or rehabilitate existing CFD Facilities.

AUTHORIZED SERVICES

The CFD is being established to fund the cost of all authorized CFD Services which are to include, but are not limited to:

1. **Capital Replacement.** Capital Replacement includes any and all costs associated with repairing and replacing any of the Facilities described above.

2. **Maintenance.** Maintenance includes any and all costs associated with maintaining, operating and servicing all of the Facilities described above. This includes, but is not limited to the cost of labor, mechanical and automotive expenses, maintenance services, materials and supplies, water, electricity and other utilities, refuse collection, sewage disposal, security services or other costs incurred for the Facilities.

3. **General CFD Costs.** General Costs include any and all administrative costs associated with the CFD including, but not limited to, the costs of setting the annual levy and the collection of Special Taxes, such as county tax collection fees, consultant fees, legal fees and city staff costs.

   Additionally, Services may include any other facilities permitted under the Mello-Roos Community Facilities Act of 1982, including the facilities described in Section 53313.5 of the California Government Code, as amended from time to time, provided that such services are related to at least one of the following criteria: 1) the augmentation, improvement or expansion of existing Facilities that are primarily for the benefit of the CFD; or 2) the reparation or rehabilitation of existing Facilities.

EXHIBIT B

City of Rancho Cordova

Community Facilities District No. 2018-2
(Community Places and Neighborhood Greens)

RATE AND METHOD OF APPORTIONMENT OF SPECIAL TAX

A Special Tax as described herein and authorized under the Mello-Roos Community Facilities Act of 1982 (the "Act") shall be applicable to parcels of land within the Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) (the "CFD") of the City of Rancho Cordova (the "City"), including any parcels of land subsequently annexed into the CFD unless a separate Rate and Method of Apportionment of Special Tax is adopted at the time of annexation. The Special Tax shall be levied and collected as determined by the City through the application of the Rate and Method of Apportionment as described below.

A. Definitions

"Act" means the Mello-Roos Community Facilities Act of 1982, as amended, being Chapter 2.5, Division 2 of Title 5 of the Government Code of the State of California.

"Age-Qualified Residential Parcel" means a Residential Parcel within an age-qualified community as defined in the Fair Housing Act of 1968 or the 1995 Housing for Older Persons Act including amendments to those Acts.

"Age-Qualified Multi-Family Residential Parcel" means a Multi-Family Residential Parcel that meets the criteria for an Age-Qualified Residential Parcel.

"Age-Qualified Single Family Residential Parcel" means a Single Family Residential Parcel that meets the criteria for an Age-Qualified Residential Parcel.

"Administrative Expenses" means the actual or reasonably estimated costs incurred by the City acting for and on behalf of the CFD as administrator thereof, to determine, levy and collect the Special Taxes, in responding to public inquiries regarding the Special Taxes, including salaries of City employees and a proportionate amount of the City's general administrative overhead related thereto; the fees of consultants and legal counsel providing services related to the administration of the CFD; any amounts estimated or advanced by the City or CFD for any other administrative purposes; and any other costs required to administer the CFD as determined by the City.

"Annual Special Tax" means the total Special Tax levied against a Residential Parcel in the CFD in a Fiscal Year.

"Assessor's Parcel" or "Parcel" means a lot or parcel shown in an Assessor's Parcel Map with an assigned Assessor's Parcel Number.

"Assessor's Parcel Map" means an official map of the County Assessor of the County designating lots or parcels by an Assessor's Parcel Number.

"Assessor's Parcel Number" means the Assessor's Parcel Number for any Parcel based on the County Assessor's secured property tax roll as of July 1 of each Fiscal Year.

"Authorized Facilities and Services" or "Facilities and Services" means the authorized facilities, maintenance activities and/or services, and expenses that may be funded by the CFD pursuant to the Act as amended, including, without limitation, the facilities and services authorized to be funded by the CFD as set forth in the documents adopted by the City Council at the time the CFD was formed.

"Base Year" means the Fiscal Year beginning July 1, 2018 and ending June 30, 2019.

"Building Permit" means a building permit issued by the City prior to the June 30 preceding the Fiscal Year in which the Special Tax is being levied.

"Capital Replacement Reserve Fund(s)" means a fund or funds that may be maintained for the CFD to provide for the accumulation and holding of funds for long-term capital projects, asset replacement, or other large anticipated expenditures.

"CFD" or "CFD No. 2018-2" means Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) of the City of Rancho Cordova.

"CFD Administrator" means an official of the City, or designee thereof, responsible for determining the Special Tax Requirement and providing for the levy and collection of the Special Taxes.

"City" means the City of Rancho Cordova.

"City Council" means the City Council of the City of Rancho Cordova, acting as legislative body of the CFD.

"County" means the County of Sacramento.

"Developed Residential Parcel" means any residential parcel for which a building permit has been issued by the City prior to the start of the current Fiscal Year.

"Dwelling Unit" means each separate residential dwelling unit that comprises an independent facility capable of conveyance or rental separate from adjacent residential dwelling units.

"Final Subdivision Map" means a subdivision of property creating residential buildable lots by recordation of a Final Subdivision Map or parcel map pursuant to the Subdivision Map Act (California Government Code Section 66410 et seq.), or recordation of a condominium plan pursuant to the California Civil Code 1352, that creates individual lots for which building permits may be issued without further subdivision and is recorded prior to June 30 preceding the Fiscal Year in which the Special Tax is being levied.

"Fiscal Year" means the period starting July 1 and ending the following June 30.

"**Maximum Annual Special Tax"** means the Maximum Special Tax that may be levied against a Taxable Parcel in a Fiscal Year determined in accordance with Section C and Section D.

"Maximum Special Tax Rate" means the amount shown in Section C that is used in calculating the Maximum Annual Special Tax that may be levied on a Residential Parcel based on its residential land use and the number of residential Dwelling Units on the Parcel for a Fiscal Year.

"Multi-Family Residential Parcel" means a Residential Parcel with authorized residential use to consist of two or more for-rent Dwelling Units that share common walls, including, but not limited to, apartments and Residential Property that are not for sale to an end user and are under common management.

"Operating Reserve Fund" means a fund that may be maintained for the CFD each Fiscal Year to provide necessary cash flow to pay for the operation, maintenance and servicing of the CFD Facilities, Administrative Expenses and any other allowable CFD costs through the first six months of each Fiscal Year, which is at or around the time in which the City will receive the first allocation from the County of the annual Special Tax levy.

"Other Land Use Parcel" means a Taxable Parcel that does not have authorized residential use that is verified by issuance of a Building Permit for residential use, secured assessment roll classification for residential land use and assessed valuation that includes the improved value of residential Dwelling Unit(s) by the County Assessor, Final Subdivision Map or other authorization of the City or County allowing the Parcel to be used for residential purposes.

"Proportionately" means that the ratio of the Annual Special Tax to the Maximum Annual Special Tax is equal for all Taxable Parcels levied within the CFD.

"Public Parcel" means any Parcel, in its entirety, that is or is intended to be publicly owned and is normally exempt from the levy of general ad valorem property taxes under California law, including, but not limited to, public streets, schools, parks, fire stations, police stations, and public drainage ways; public landscaping, wetlands, greenbelts, and public open space. These parcels are exempt from the levy of Special Taxes and classified as Tax-Exempt Parcels.

"Residential Parcel" means a Taxable Parcel that does have authorized residential use. A Residential Parcel is further classified as either a Single-Family Residential or a Multi-Family Residential Parcel depending on the type of residential use authorized for the Parcel. Once classified as a Residential Parcel, no Parcel shall be removed from the Residential Parcel classification unless the Building Permit or other authorization expires, is revoked, or is otherwise terminated.

"Resolution of Formation" means the City Council resolution establishing the CFD and authorizing the levy the Special Tax.

"Single-Family Residential Parcel" means a Residential Parcel with authorized residential use to consist of one Dwelling Unit that may or may not share common walls with one or more other Dwelling Unit(s), including, but not limited to, detached homes, duplexes, triplexes, townhomes, condominiums, and other Residential Parcels that are for sale to an end user and are not under common management.

"Special Tax" means any Special Tax authorized to be levied in the CFD under the Act and the Resolution of Formation.

"Special Tax Requirement" means the amount, as determined by the CFD Administrator, for any Fiscal Year to: (i) pay the costs for the operation, maintenance and services of the Authorized Facilities and Services during such Fiscal Year based upon the service levels established at the time of formation or as may be amended by the City in the future, (ii) pay Administrative Expenses associated with the Special Tax, (iii) establish or replenish the Operating Reserve Fund, (iv) establish or replenish the Capital Replacement Reserve Fund(s), (v) pay incidental expenses related to the Authorized Facilities and Services as authorized pursuant to the Act, and less (vi) any excess

funds available in the Operating Reserve Fund, the Capital Replacement Reserve Fund(s), or other funds associated with the CFD as determined by the CFD Administrator.

"Tax Escalation Factor" means an annual percentage increase equal to the greater of (i) the annual average Consumer Price Index (CPI), for San Francisco-Oakland-San Jose, All Urban Consumers (CPI-U) for the prior calendar year, or (ii) three percent (3%). If the CPI listed above is no longer published, the Administrator shall select a new tax escalation factor that is reasonably comparable to the CPI that is no longer published.

"Taxable Parcel" means any Parcel that is not a Tax-Exempt Parcel.

"Tax-Exempt Parcel" means a Parcel not subject to the Special Tax. Tax-Exempt Parcels are Public Parcels (subject to the limitations set forth in Section B), or privately owned Parcels that are non-developable, such as common areas, wetlands, and open space, all of which are exempt from the levy of Special Taxes as determined by the City.

"Tax Zone" means one of two (2) mutually exclusive tax zones identified in Exhibit 1 of this Rate and Method of Apportionment, which may be updated to include new assessor's parcels or new Tax Zones added to the CFD as a result of future annexations.

"Tax Zone A" means the Tax Zone that includes parcels located in a development that has local neighborhood greens within such development that will be maintained by the City.

"Tax Zone B" means the Tax Zone that includes parcels located in a development that does not have local neighborhood greens within such development or has local neighborhood greens that will be maintained by an entity or agency other than the City.

"Total Annual Special Tax" means the total of the Annual Special Taxes levied against all Residential Parcels in the CFD in a Fiscal Year.

"Total Maximum Annual Special Tax" means the total of the Maximum Special Taxes that could be levied against all Residential Parcels in the CFD in a Fiscal Year.

"Undeveloped Residential Parcel" means any residential parcel for which a building permit has not been issued by the City prior to the start of the current Fiscal Year.

B. Data Collection for the Annual Special Tax Levy

On July 1 of each Fiscal Year, commencing with the Base Year, the Administrator shall classify the Parcels in the CFD using the Definitions in Section A, the Parcel records of the Assessor's secured property tax roll as of July 1 and other City or County development approval records as follows:

i. Each Parcel shall be assigned to either Tax Zone A or Tax Zone B;

ii. Each Parcel shall be classified as a Taxable Parcel or a Tax-Exempt Parcel;

iii. Each Taxable Parcel shall be further classified as a Residential Parcel or an Other Land Use Parcel;

iv. Each Residential Parcel for shall be classified as a Single-Family Residential Parcel or a Multi-Family Residential Parcel;

v. Each Residential Parcel that meets the criteria for an Age-Qualified Residential Parcel shall be further designated as either an Age-Qualified Single Family Residential Parcel or an Age-Qualified Multi-Family Residential Parcel

If a Tax-Exempt Parcel is converted to a Taxable Parcel as a result of the sale of a Tax-Exempt Parcel to a private owner for residential development, it shall become subject to the Special Tax.

Conversely, if a Taxable Parcel is converted to a Tax-Exempt Parcel as a result of either (i) the sale of the Taxable Parcel to a public entity, and such entity is normally exempt from the levy of general ad valorem property taxes under California law or (ii) the inability of the private owner to develop the parcel as described in the definition of "Tax-Exempt Parcel," it shall become a Tax-Exempt Parcel.

C. Maximum Special Tax Rates

The annual Maximum Special Tax Rates for Residential Parcels for Base Year 2018/19 are as follows:

Residential Land Use	**Maximum Special Tax per Dwelling Unit**	
	Tax Zone A	**Tax Zone B**
Single-Family Residential Parcel	$115.84	$28.49
Age-Qualified Single Family Residential Parcel	$78.54	$19.32
Multi-Family Residential Parcel	$60.48	$14.88
Age-Qualified Multi-Family Residential Parcel	$41.01	$10.09

For each Fiscal Year following the Base Year, each of the Maximum Annual Special Tax Rates shall be increased from the prior Fiscal Year's respective Maximum Annual Special Tax Rates by multiplying such prior Fiscal Year Maximum Special Tax Rates by the Tax Escalation Factor.

D. Determination of Multi-Family Residential Parcel's Maximum Annual Special Tax *When a building permit is issued for a Multi-Family Residential Parcel, the Maximum Annual Special Tax for the Parcel for which such building permit has been issued for each Fiscal Year shall be determined by multiplying the number of Dwelling Units assigned to the Parcel times the Maximum Special Tax Rate for the Parcel as determined in Section C.*

E. Levy of the Annual Special Tax

Each year, the CFD Administrator shall levy the Annual Special Tax commencing with Fiscal Year 2018-2019, and for each Fiscal Year thereafter as follows:

i. Each Year on July 1, the CFD Administrator shall determine the Special Tax Requirement for the current Fiscal Year.

ii. The Annual Special Tax shall be levied proportionately on each Developed Residential Parcel within each Tax Zone up to 100% of the applicable Maximum Annual Special Tax, not to exceed the Special Tax Requirement for the current Fiscal Year.

iii. If additional revenue is required to equal the Special Tax Requirement for the current Fiscal Year, the Annual Special Tax shall be levied proportionately on Undeveloped Residential Parcels up to 100% of the Maximum Annual Special Tax, not to exceed the remainder of the Annual Special Tax Requirement for which a Final Subdivision Map has been approved and Authorized Facilities have been accepted for maintenance by the City.

Under no circumstances will the Annual Special Tax levied in any Fiscal Year against any Residential Parcel be increased as a consequence of delinquency or default by the owner or owners of any other parcel or parcels within the CFD by more than 10 percent above the amount that would have been levied in that Fiscal Year had there never been any such delinquencies or defaults.

F. Manner of Collection

The Annual Special Tax will be collected in the same manner and at the same time as ad valorem property taxes, provided, however, that the Administrator or its designee may directly bill the Annual Special Tax and may collect the Annual Special Tax at a different time, such as on a monthly or other periodic basis, or in a different manner, if necessary, to meet the City's financial obligations.

The Administrator shall prepare a listing of the amount of the of the Annual Special Tax levy for each Taxable Parcel and send it to the County Auditor-Controller requesting that it be placed on the County's secured property tax roll for that Fiscal Year.

G. Limitations

Notwithstanding any other provision of this Rate and Method of Apportionment of Special Tax, no Special Tax shall be levied on any Other Land Use Parcel, Public Parcel or Tax-Exempt Parcel.

H. Duration of the Special Tax

Parcels in the CFD will remain subject to the Special Tax in perpetuity, unless and until such time the City determines the revenues are no longer needed, in which case the Special Tax shall cease to be levied and City shall direct the County Recorder to record a Notice of Cessation of Special Tax. Such notice will state that the obligation to pay the Special Tax has ceased and that the lien imposed by the Notice of Special Tax Lien is extinguished. The Notice of Cessation of Special Tax

shall additionally identify the book and page of the Book of Maps of Assessment and Community Facilities Districts where the map of the boundaries of the CFD is recorded.

I. Appeals

Any taxpayer who believes that the amount of the Special Tax assigned to a Parcel is in error may file a notice with the City appealing the levy of the Special Tax. The City will then promptly review the appeal, and if necessary, meet with the applicant. If the City verifies that the Special Tax should be modified or changed, the Special Tax levy shall be corrected and, if applicable, a refund or revised tax bill shall be granted for the current Fiscal Year.

Interpretations may be made by Resolution of the City Council for purposes of clarifying any vagueness or ambiguity as it relates to the Maximum Annual Special Tax Rate, the method of apportionment, the classification of properties or any definition applicable to the CFD.

J. Prepayment of the Special Tax Obligation

The Special Tax for a Taxable Parcel may not be prepaid. The Special Tax is collected to fund Authorized Facilities and Services in perpetuity, or until the City Council determines that the Special Tax should no longer be collected.

Rate and Method of Apportionment

EXHIBIT 1

TAX ZONE DESIGNATIONS

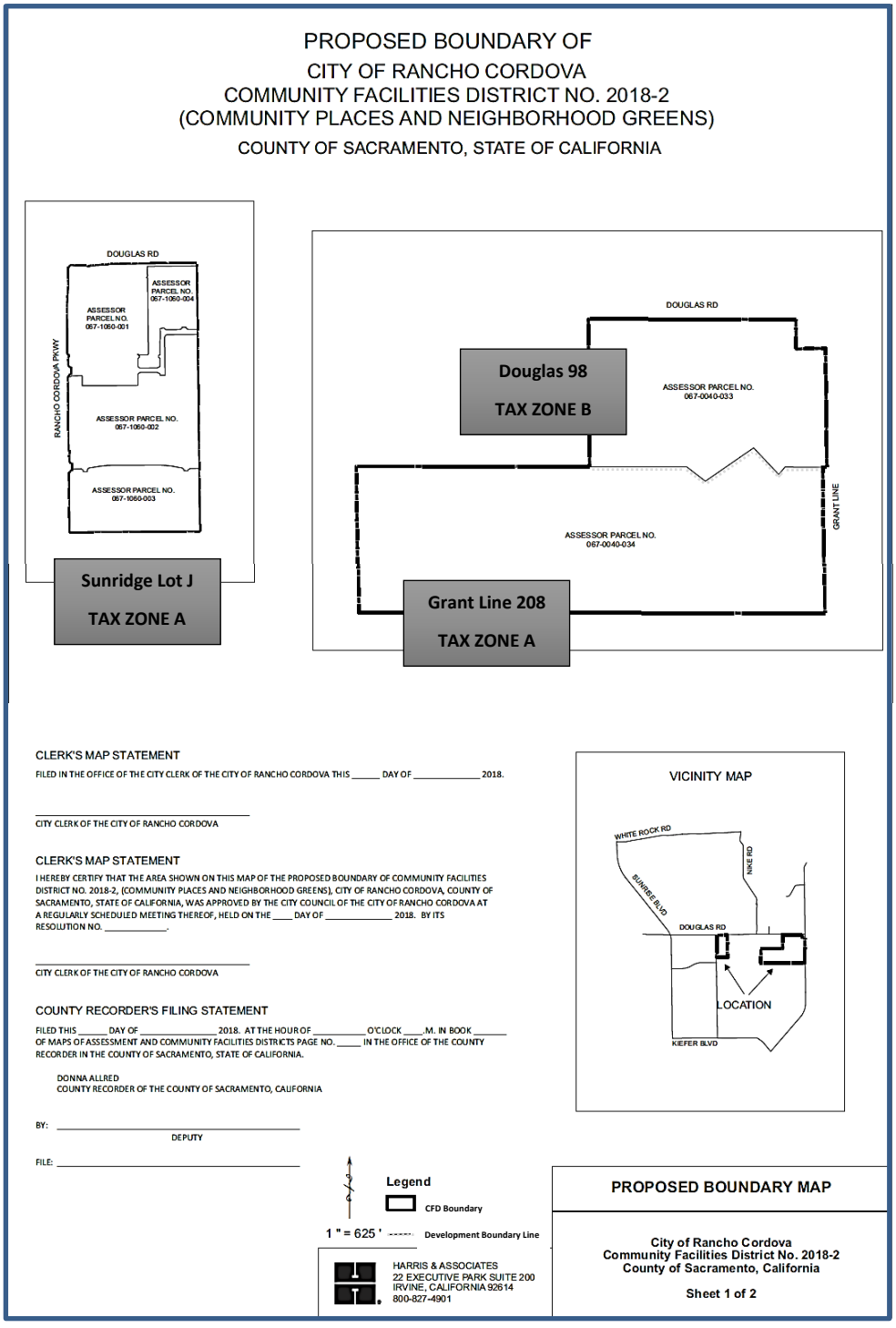


EXHIBIT C

COMMUNITY FACILITIES DISTRICT NO. 2018-2
(COMMUNITY PLACES AND NEIGHBORHOOD GREENS)
OF THE CITY OF RANCHO CORDOVA

NAMES OF OWNER(S) AND THE ASSESSOR'S PARCEL NUMBER(S)

ASSESSOR PARCEL NUMBER	NAME OF PROPERTY OWNERS
067-0242-002	AG EHC II (HOV) CA 1 LP
067-0241-004	AG EHC II (HOV) CA 1 LP
067-0241-005	AG EHC II (HOV) CA 1 LP
067-0241-001	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-002	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-003	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-006	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-007	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0241-008	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0242-003	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0242-004	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0242-005	K. HOVNANIAN AT JAEGER RANCH, LLC
067-0242-006	K. HOVNANIAN AT JAEGER RANCH, LLC

CITY OF RANCHO CORDOVA
Community Facilities District No. 2018-2
(Community Places and Neighborhood Greens)

Annexation No. 4

UNANIMOUS APPROVAL
of Annexation to a Community Facilities District
and Related Matters

To the City Council
City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 956703

Members of the City Council:

This constitutes the Unanimous Approval (the "Unanimous Approval") of Lennar Homes of California, the record owner(s) (the "Property Owner") of the fee title to the real property identified below (the "Property") contemplated by Section 53339.3 et seq. of the Mello-Roos Community Facilities Act of 1982, as amended (the "Act") to annexation of the Property to the "City of Rancho Cordova Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) (the "CFD"), and it states as follows:

1. Property Owner. This Unanimous Approval is submitted by the Property Owner (whether one or more) identified below as or for the recorded owner(s) of the Property identified below. The Property Owner warrants to the City of Ranch Cordova (the "City") that they are such Property Owner or is legally authorized to execute this Unanimous Approval for and on behalf of such Property Owner.

2. Approval of Annexation. This Unanimous Approval constitutes the unanimous approval and unanimous vote by the Property Owner in favor of the annexation of the Property to the CFD. The CFD was formed to finance the municipal services (the "Services") described in Exhibit A hereto and made a part hereof.

3. Approval of Special Tax and the Facilities. This Unanimous Approval constitutes the unanimous approval and unanimous vote by the Property Owner in favor of the levy of special taxes (the "Special Taxes") on the Property to finance the Services, according to the Rate and Method of Apportionment of Special Taxes for the CFD attached hereto as Exhibit B and made a part hereof (the "Rate and Method"). Exhibit B describes the maximum special tax rate for the Services. This annexed property is placed in Tax Zone A for purposes of computation of the Special Tax.

4. Approval of the Appropriations Limit. This Unanimous Approval constitutes the unanimous approval and unanimous vote by the Property Owner in favor of the appropriations limit established for the CFD.

5. Waivers and Vote. The Property Owner hereby confirms that this Unanimous Approval constitutes its approval and unanimous vote as described herein and as contemplated by Section 53339.3 et seq. of the Act and Article XIIIA of the California Constitution. The Property Owner hereby waives all other rights with respect to the annexation of the Property, the levy of the Special Taxes on the Property and the other matters covered in this Unanimous Approval.

6. Recordation of Amendment to Notice of Special Tax Lien. The Notice of Special Tax Lien for the CFD was heretofore recorded in the Office of the County Recorder of the County of Sacramento, State of California on September 14, 2018, recorded at Book 20180914 at Page 0535.

The Property Owner hereby authorizes and directs the City Clerk to execute and cause to be recorded in the Office of the County Recorder of the County of Sacramento an amendment to the Notice of Special Tax Lien for the CFD as required by Section 3117.5 of the California Streets and Highways Code. The amendment to the Notice of Special Tax Lien shall include the Rate and Method as an exhibit thereto.

7. City Warranted. The Property Owner warrants to the City that the presentation of this Unanimous Approval, any votes, consents or waivers contained herein, and other actions mandated by the City for the annexation of the Property to the CFD shall not constitute or be construed as events of default or delinquencies under any existing or proposed financing documents entered into or to be entered into by the Property Owner for the Property, including any "due-on-encumbrance" clauses under any existing security instruments secured by the Property. If requested by the City, the Property Owner agrees, at its own expense, to supply to the City, current title evidence so that the City may verify ownership for the annexation to the CFD.

8. Due Diligence and Disclosures. The Property Owner agrees to cooperate with the City and its attorneys and consultants and to provide all information and disclosures required by the City about the Special Taxes to purchasers of the Property or any part of it.

9. Agreements. The Property Owner further agrees to execute such additional or supplemental agreements as may be required by the City to provide for any of the actions and conditions described in this Unanimous Approval, including any cash deposit required to pay for the City's costs in annexing the Property to the CFD.

10. The Property. The Property is identified as follows:

Assessor's Parcel No. **067-0040-010-0000**

By executing this Unanimous Approval, the Property Owner agrees to all of the above.

The Petitioner (record owner) of the Property is:

Lennar Homes of California, LLC,
a California limited liability company
A successor-in-interest by conversion to Lennar Homes of California Inc.

Signature of Petitioner: _____
[Larry Gualco, Sr. Vice President]

Date: 3/3/22

The address to which the ballots for the CFD elections are to be sent:

Lennar Homes of California
1025 Creekside Ridge Drive, Suite 240
Roseville, CA 95678
Attention: Larry Gualco

EXHIBIT A

CITY OF RANCHO CORDOVA
Community Facilities District No. 2018-2
(Community Places and Neighborhood Greens)

LIST OF FACILITIES AND SERVICES AUTHORIZED TO BE FUNDED

The City of Rancho Cordova (the "City") is establishing Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) (the "CFD") to fund, in whole or in part, the following facilities and services (the terms "facilities" and "services" shall have the meaning as given in the Mello-Roos Community Facilities Act of 1982.

AUTHORIZED FACILITIES

The CFD is being established to fund the maintenance, operations, servicing, rehabilitation and replacement of CFD Facilities. The costs associated with the initial capital improvements required for the construction or installation of the Facilities are not included in the costs to be funded by the CFD. A general list of the Facilities to be operated, maintained and serviced by the CFD include:

1. **Community Plazas.** Community Plazas are a component of the Community Places category of City Open Space, as defined in the City's Open Space Guidelines. Community Plazas are typically located in Village and Town Centers to provide areas for congregation, socializing and community events/activities. Two Community Plazas are planned for the CFD.

   Specific amenities will be determined on a site-by-site basis. Typical amenities may include, but are not limited to, expanded public gathering space; outdoor seating and shade structures; signage and lighting; trash and recycling receptacles; bicycle parking; features of interest such as fountains, art work, engaging landscapes and other unique structures/treatments; hardscape areas; and formal landscaping in planter boxes.

2. **Bicycle Trails.** Bicycle Trails are a component of the Green Infrastructure category of City Open Space as defined in the City's Open Space Guidelines. A system of Bicycle Trails, defined as the *Class I Bicycle Trails East of Sunrise Boulevard* in the City's Bicycle Trails Master Plan, is planned for the CFD. This system of trails will have an estimated 250,530 linear feet of bicycle trails (over 47 miles) that will be a part of the City's overall Bicycle Trail network.

   Primary trails are 16' in overall width (12' of asphalt pavement with a 2' shoulder on each side). Primary trails are typically located within a corridor of at least 50 feet in width, with larger widths up to 100 feet encouraged. Corridors of less than 50 feet in width may be accepted based on the unique opportunities and constraints within a given development project. Secondary trails feed into primary trails and provide connections to significant corridors and local trails. Secondary trails are 14' in overall width (10' of asphalt pavement with a 2' shoulder

on each side) and are typically located within a corridor of at least 35 feet in width, with larger widths encouraged.

Typical amenities for Bicycle Trails may include, but are not limited to, native and/or draught tolerant plants; railings and edge protections; grade separated crossings; signage and lighting; shade trees; and trailheads where trails begin or connect to other trails. Trailheads are small open space areas that may include benches; signage and lighting; trash and recycling receptacles; maps; and other elements to assist trail users.

3. **Neighborhood Greens.** Neighborhood Greens are the most commonly occurring component of the Community Places category of City Open Space, as defined in the City's Open Space Guidelines. Neighborhood Greens are small-scale urban and suburban open spaces serving as places to meet, gather, socialize, commune with nature or otherwise participate in passive recreation activities. Neighborhood Greens are typically located in small developed and landscaped areas generally within residential neighborhoods in new development areas.

   Specific amenities will be determined on a site-by-site basis. Typical amenities may include, but are not limited to, public gathering space; multi-purpose tables, benches and shade structures; signage and lighting; trash and recycling receptacles; water fountains, barbeque areas and bicycle parking; walking paths, including those with special paving materials; landscape areas and hardscape areas; and distinguished areas with a special design feature such as tree variety or other similar amenity.

4. **Other Facilities.** In addition to the facilities described above, the following features as described in the City's Open Space Guidelines may be maintained by the CFD:

Community Places	Green Infrastructure
Neighborhood Greens	Pedestrian Trails
Town Greens	Pedestrian Paseos
Community Gardens / Rose Gardens / Display Gardens	Utility Easements
Water Resources / Streams / Ponds / Lakes	Green Streets
Community Wide Open Space Facilities	Local Residential Street Landscape Enhancement
Outdoor Amphitheaters	Enhanced Detention Basins / Drainage Ways

Additionally, Facilities may include any other facilities permitted under the Mello-Roos Community Facilities Act of 1982, including the facilities described in Section 53313.5 of the

California Government Code, as amended from time to time, provided that such facilities satisfy at least one of the following criteria: 1) augment, improve or expand existing CFD Facilities that are primarily for the benefit of the CFD; or 2) repair or rehabilitate existing CFD Facilities.

AUTHORIZED SERVICES

The CFD is being established to fund the cost of all authorized CFD Services which are to include, but are not limited to:

1. **Capital Replacement.** Capital Replacement includes any and all costs associated with repairing and replacing any of the Facilities described above.

2. **Maintenance.** Maintenance includes any and all costs associated with maintaining, operating and servicing all of the Facilities described above. This includes, but is not limited to the cost of labor, mechanical and automotive expenses, maintenance services, materials and supplies, water, electricity and other utilities, refuse collection, sewage disposal, security services or other costs incurred for the Facilities.

3. **General CFD Costs.** General Costs include any and all administrative costs associated with the CFD including, but not limited to, the costs of setting the annual levy and the collection of Special Taxes, such as county tax collection fees, consultant fees, legal fees and city staff costs.

   Additionally, Services may include any other facilities permitted under the Mello-Roos Community Facilities Act of 1982, including the facilities described in Section 53313.5 of the California Government Code, as amended from time to time, provided that such services are related to at least one of the following criteria: 1) the augmentation, improvement or expansion of existing Facilities that are primarily for the benefit of the CFD; or 2) the reparation or rehabilitation of existing Facilities.

EXHIBIT B

CITY OF RANCHO CORDOVA

Community Facilities District No. 2018-2

(Community Places and Neighborhood Greens)

RATE AND METHOD OF APPORTIONMENT OF SPECIAL TAX

A Special Tax as described herein and authorized under the Mello-Roos Community Facilities Act of 1982 (the "Act") shall be applicable to parcels of land within the Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) (the "CFD") of the City of Rancho Cordova (the "City"), including any parcels of land subsequently annexed into the CFD unless a separate Rate and Method of Apportionment of Special Tax is adopted at the time of annexation. The Special Tax shall be levied and collected as determined by the City through the application of the Rate and Method of Apportionment as described below.

A. Definitions

"Act" means the Mello-Roos Community Facilities Act of 1982, as amended, being Chapter 2.5, Division 2 of Title 5 of the Government Code of the State of California.

"Age-Qualified Residential Parcel" means a Residential Parcel within an age-qualified community as defined in the Fair Housing Act of 1968 or the 1995 Housing for Older Persons Act including amendments to those Acts.

"Age-Qualified Multi-Family Residential Parcel" means a Multi-Family Residential Parcel that meets the criteria for an Age-Qualified Residential Parcel.

"Age-Qualified Single Family Residential Parcel" means a Single Family Residential Parcel that meets the criteria for an Age-Qualified Residential Parcel.

"Administrative Expenses" means the actual or reasonably estimated costs incurred by the City acting for and on behalf of the CFD as administrator thereof, to determine, levy and collect the Special Taxes, in responding to public inquiries regarding the Special Taxes, including salaries of City employees and a proportionate amount of the City's general administrative overhead related thereto; the fees of consultants and legal counsel providing services related to the administration of the CFD; any amounts estimated or advanced by the City or CFD for any other administrative purposes; and any other costs required to administer the CFD as determined by the City.

"Annual Special Tax" means the total Special Tax levied against a Residential Parcel in the CFD in a Fiscal Year.

"Assessor's Parcel" or "Parcel" means a lot or parcel shown in an Assessor's Parcel Map with an assigned Assessor's Parcel Number.

"Assessor's Parcel Map" means an official map of the County Assessor of the County designating lots or parcels by an Assessor's Parcel Number.

"Assessor's Parcel Number" means the Assessor's Parcel Number for any Parcel based on the County Assessor's secured property tax roll as of July 1 of each Fiscal Year.

"Authorized Facilities and Services" or "Facilities and Services" means the authorized facilities, maintenance activities and/or services, and expenses that may be funded by the CFD pursuant to the Act as amended, including, without limitation, the facilities and services authorized to be funded by the CFD as set forth in the documents adopted by the City Council at the time the CFD was formed.

"Base Year" means the Fiscal Year beginning July 1, 2018 and ending June 30, 2019.

"Building Permit" means a building permit issued by the City prior to the June 30 preceding the Fiscal Year in which the Special Tax is being levied.

"Capital Replacement Reserve Fund(s)" means a fund or funds that may be maintained for the CFD to provide for the accumulation and holding of funds for long-term capital projects, asset replacement, or other large anticipated expenditures.

"CFD" or "CFD No. 2018-2" means Community Facilities District No. 2018-2 (Community Places and Neighborhood Greens) of the City of Rancho Cordova.

"CFD Administrator" means an official of the City, or designee thereof, responsible for determining the Special Tax Requirement and providing for the levy and collection of the Special Taxes.

"City" means the City of Rancho Cordova.

"City Council" means the City Council of the City of Rancho Cordova, acting as legislative body of the CFD.

"County" means the County of Sacramento.

"Developed Residential Parcel" means any residential parcel for which a building permit has been issued by the City prior to the start of the current Fiscal Year.

"Dwelling Unit" means each separate residential dwelling unit that comprises an independent facility capable of conveyance or rental separate from adjacent residential dwelling units.

"Final Subdivision Map" means a subdivision of property creating residential buildable lots by recordation of a Final Subdivision Map or parcel map pursuant to the Subdivision Map Act (California Government Code Section 66410 et seq.), or recordation of a condominium plan pursuant to the California Civil Code 1352, that creates individual lots for which building permits may be issued without further subdivision and is recorded prior to June 30 preceding the Fiscal Year in which the Special Tax is being levied.

"Fiscal Year" means the period starting July 1 and ending the following June 30.

"**Maximum Annual Special Tax"** means the Maximum Special Tax that may be levied against a Taxable Parcel in a Fiscal Year determined in accordance with Section C and Section D.

"Maximum Special Tax Rate" means the amount shown in Section C that is used in calculating the Maximum Annual Special Tax that may be levied on a Residential Parcel

based on its residential land use and the number of residential Dwelling Units on the Parcel for a Fiscal Year.

"Multi-Family Residential Parcel" means a Residential Parcel with authorized residential use to consist of two or more for-rent Dwelling Units that share common walls, including, but not limited to, apartments and Residential Property that are not for sale to an end user and are under common management.

"Operating Reserve Fund" means a fund that may be maintained for the CFD each Fiscal Year to provide necessary cash flow to pay for the operation, maintenance and servicing of the CFD Facilities, Administrative Expenses and any other allowable CFD costs through the first six months of each Fiscal Year, which is at or around the time in which the City will receive the first allocation from the County of the annual Special Tax levy.

"Other Land Use Parcel" means a Taxable Parcel that does not have authorized residential use that is verified by issuance of a Building Permit for residential use, secured assessment roll classification for residential land use and assessed valuation that includes the improved value of residential Dwelling Unit(s) by the County Assessor, Final Subdivision Map or other authorization of the City or County allowing the Parcel to be used for residential purposes.

"Proportionately" means that the ratio of the Annual Special Tax to the Maximum Annual Special Tax is equal for all Taxable Parcels levied within the CFD.

"Public Parcel" means any Parcel, in its entirety, that is or is intended to be publicly owned and is normally exempt from the levy of general ad valorem property taxes under California law, including, but not limited to, public streets, schools, parks, fire stations, police stations, and public drainage ways; public landscaping, wetlands, greenbelts, and public open space. These parcels are exempt from the levy of Special Taxes and classified as Tax-Exempt Parcels.

"Residential Parcel" means a Taxable Parcel that does have authorized residential use. A Residential Parcel is further classified as either a Single-Family Residential or a Multi-Family Residential Parcel depending on the type of residential use authorized for the Parcel. Once classified as a Residential Parcel, no Parcel shall be removed from the Residential Parcel classification unless the Building Permit or other authorization expires, is revoked, or is otherwise terminated.

"Resolution of Formation" means the City Council resolution establishing the CFD and authorizing the levy the Special Tax.

"Single-Family Residential Parcel" means a Residential Parcel with authorized residential use to consist of one Dwelling Unit that may or may not share common walls with one or more other Dwelling Unit(s), including, but not limited to, detached homes, duplexes, triplexes, townhomes, condominiums, and other Residential Parcels that are for sale to an end user and are not under common management.

"Special Tax" means any Special Tax authorized to be levied in the CFD under the Act and the Resolution of Formation.

"Special Tax Requirement" means the amount, as determined by the CFD Administrator, for any Fiscal Year to: (i) pay the costs for the operation, maintenance and

services of the Authorized Facilities and Services during such Fiscal Year based upon the service levels established at the time of formation or as may be amended by the City in the future, (ii) pay Administrative Expenses associated with the Special Tax, (iii) establish or replenish the Operating Reserve Fund, (iv) establish or replenish the Capital Replacement Reserve Fund(s), (v) pay incidental expenses related to the Authorized Facilities and Services as authorized pursuant to the Act, and less (vi) any excess funds available in the Operating Reserve Fund, the Capital Replacement Reserve Fund(s), or other funds associated with the CFD as determined by the CFD Administrator.

"Tax Escalation Factor" means an annual percentage increase equal to the greater of (i) the annual average Consumer Price Index (CPI), for San Francisco-Oakland-San Jose, All Urban Consumers (CPI-U) for the prior calendar year, or (ii) three percent (3%). If the CPI listed above is no longer published, the Administrator shall select a new tax escalation factor that is reasonably comparable to the CPI that is no longer published.

"Taxable Parcel" means any Parcel that is not a Tax-Exempt Parcel.

"Tax-Exempt Parcel" means a Parcel not subject to the Special Tax. Tax-Exempt Parcels are Public Parcels (subject to the limitations set forth in Section B), or privately owned Parcels that are non-developable, such as common areas, wetlands, and open space, all of which are exempt from the levy of Special Taxes as determined by the City.

"Tax Zone" means one of two (2) mutually exclusive tax zones identified in Exhibit 1 of this Rate and Method of Apportionment, which may be updated to include new assessor's parcels or new Tax Zones added to the CFD as a result of future annexations.

"Tax Zone A" means the Tax Zone that includes parcels located in a development that has local neighborhood greens within such development that will be maintained by the City.

"Tax Zone B" means the Tax Zone that includes parcels located in a development that does not have local neighborhood greens within such development or has local neighborhood greens that will be maintained by an entity or agency other than the City.

"Total Annual Special Tax" means the total of the Annual Special Taxes levied against all Residential Parcels in the CFD in a Fiscal Year.

"Total Maximum Annual Special Tax" means the total of the Maximum Special Taxes that could be levied against all Residential Parcels in the CFD in a Fiscal Year.

"Undeveloped Residential Parcel" means any residential parcel for which a building permit has not been issued by the City prior to the start of the current Fiscal Year.

B. Data Collection for the Annual Special Tax Levy

On July 1 of each Fiscal Year, commencing with the Base Year, the Administrator shall classify the Parcels in the CFD using the Definitions in Section A, the Parcel records of the Assessor's secured property tax roll as of July 1 and other City or County development approval records as follows:

i. Each Parcel shall be assigned to either Tax Zone A or Tax Zone B;

ii. Each Parcel shall be classified as a Taxable Parcel or a Tax-Exempt

Parcel;

iii. *Each Taxable Parcel shall be further classified as a Residential Parcel or an Other Land Use Parcel;*

iv. *Each Residential Parcel for shall be classified as a Single-Family Residential Parcel or a Multi-Family Residential Parcel;*

v. *Each Residential Parcel that meets the criteria for an Age-Qualified Residential Parcel shall be further designated as either an Age-Qualified Single Family Residential Parcel or an Age-Qualified Multi-Family Residential Parcel*

If a Tax-Exempt Parcel is converted to a Taxable Parcel as a result of the sale of a Tax-Exempt Parcel to a private owner for residential development, it shall become subject to the Special Tax.

Conversely, if a Taxable Parcel is converted to a Tax-Exempt Parcel as a result of either (i) the sale of the Taxable Parcel to a public entity, and such entity is normally exempt from the levy of general ad valorem property taxes under California law or (ii) the inability of the private owner to develop the parcel as described in the definition of "Tax-Exempt Parcel," it shall become a Tax-Exempt Parcel.

C. Maximum Special Tax Rates

The annual Maximum Special Tax Rates for Residential Parcels for Base Year 2018/19 are as follows:

Residential Land Use	Maximum Special Tax per Dwelling Unit	
	Tax Zone A	Tax Zone B
Single-Family Residential Parcel	$115.84	$28.49
Age-Qualified Single Family Residential Parcel	$78.54	$19.32
Multi-Family Residential Parcel	$60.48	$14.88
Age-Qualified Multi-Family Residential Parcel	$41.01	$10.09

For each Fiscal Year following the Base Year, each of the Maximum Annual Special Tax Rates shall be increased from the prior Fiscal Year's respective Maximum Annual Special Tax Rates by multiplying such prior Fiscal Year Maximum Special Tax Rates by the Tax Escalation Factor.

D. Determination of Multi-Family Residential Parcel's Maximum Annual Special Tax

When a building permit is issued for a Multi-Family Residential Parcel, the Maximum Annual Special Tax for the Parcel for which such building permit has been issued for each Fiscal Year shall be determined by multiplying the number of Dwelling Units assigned to the Parcel times the Maximum Special Tax Rate for the Parcel as determined in *Section C*.

E. Levy of the Annual Special Tax

Each year, the CFD Administrator shall levy the Annual Special Tax commencing with Fiscal Year 2018-2019, and for each Fiscal Year thereafter as follows:

i. Each Year on July 1, the CFD Administrator shall determine the Special Tax Requirement for the current Fiscal Year.

ii. The Annual Special Tax shall be levied proportionately on each Developed Residential Parcel within each Tax Zone up to 100% of the applicable Maximum Annual Special Tax, not to exceed the Special Tax Requirement for the current Fiscal Year.

iii. If additional revenue is required to equal the Special Tax Requirement for the current Fiscal Year, the Annual Special Tax shall be levied proportionately on Undeveloped Residential Parcels up to 100% of the Maximum Annual Special Tax, not to exceed the remainder of the Annual Special Tax Requirement for which a Final Subdivision Map has been approved and Authorized Facilities have been accepted for maintenance by the City.

Under no circumstances will the Annual Special Tax levied in any Fiscal Year against any Residential Parcel be increased as a consequence of delinquency or default by the owner or owners of any other parcel or parcels within the CFD by more than 10 percent above the amount that would have been levied in that Fiscal Year had there never been any such delinquencies or defaults.

F. Manner of Collection

The Annual Special Tax will be collected in the same manner and at the same time as ad valorem property taxes, provided, however, that the Administrator or its designee may directly bill the Annual Special Tax and may collect the Annual Special Tax at a different time, such as on a monthly or other periodic basis, or in a different manner, if necessary, to meet the City's financial obligations.

The Administrator shall prepare a listing of the amount of the of the Annual Special Tax levy for each Taxable Parcel and send it to the County Auditor-Controller requesting that it be placed on the County's secured property tax roll for that Fiscal Year.

G. Limitations

Notwithstanding any other provision of this Rate and Method of Apportionment of Special Tax, no Special Tax shall be levied on any Other Land Use Parcel, Public Parcel or Tax-Exempt Parcel.

H. Duration of the Special Tax

Parcels in the CFD will remain subject to the Special Tax in perpetuity, unless and until such time the City determines the revenues are no longer needed, in which case the Special Tax shall cease to be levied and City shall direct the County Recorder to record a Notice of Cessation of Special Tax. Such notice will state that the obligation to pay the Special Tax has ceased and that the lien imposed by the Notice of Special Tax Lien is extinguished. The Notice of Cessation of Special Tax shall additionally identify the book and page of the Book of Maps of Assessment and Community Facilities Districts where the map of the boundaries of the CFD is recorded.

I. Appeals

Any taxpayer who believes that the amount of the Special Tax assigned to a Parcel is in error may file a notice with the City appealing the levy of the Special Tax. The City will then promptly review the appeal, and if necessary, meet with the applicant. If the City verifies that the Special Tax should be modified or changed, the Special Tax levy shall be corrected and, if applicable, a refund or revised tax bill shall be granted for the current Fiscal Year.

Interpretations may be made by Resolution of the City Council for purposes of clarifying any vagueness or ambiguity as it relates to the Maximum Annual Special Tax Rate, the method of apportionment, the classification of properties or any definition applicable to the CFD.

J. Prepayment of the Special Tax Obligation

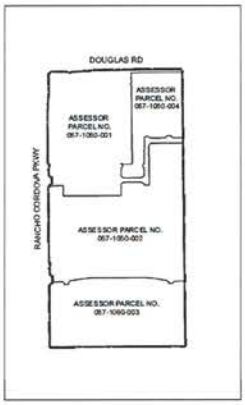
The Special Tax for a Taxable Parcel may not be prepaid. The Special Tax is collected to fund Authorized Facilities and Services in perpetuity, or until the City Council determines that the Special Tax should no longer be collected.

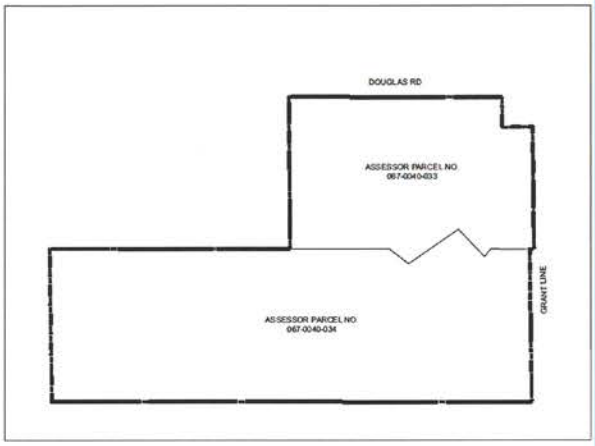
RATE AND METHOD OF APPORTIONMENT

EXHIBIT 1

TAX ZONE DESIGNATIONS

PROPOSED BOUNDARY OF
CITY OF RANCHO CORDOVA
COMMUNITY FACILITIES DISTRICT NO. 2018-2
(COMMUNITY PLACES AND NEIGHBORHOOD GREENS)
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA





CLERK'S MAP STATEMENT

FILED IN THE OFFICE OF THE CITY CLERK OF THE CITY OF RANCHO CORDOVA THIS _____ DAY OF _____ 2018.

_____
CITY CLERK OF THE CITY OF RANCHO CORDOVA

CLERK'S MAP STATEMENT

I HEREBY CERTIFY THAT THE AREA SHOWN ON THIS MAP OF THE PROPOSED BOUNDARY OF COMMUNITY FACILITIES DISTRICT NO. 2018-2, (COMMUNITY PLACES AND NEIGHBORHOOD GREENS), CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA, WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA AT A REGULARLY SCHEDULED MEETING THEREOF, HELD ON THE ____ DAY OF _____ 2018. BY ITS RESOLUTION NO. _____.

_____
CITY CLERK OF THE CITY OF RANCHO CORDOVA

COUNTY RECORDER'S FILING STATEMENT

FILED THIS _____ DAY OF _____ 2018. AT THE HOUR OF _____ O'CLOCK ____ M. IN BOOK _____ OF MAPS OF ASSESSMENT AND COMMUNITY FACILITIES DISTRICTS PAGE NO. ____ IN THE OFFICE OF THE COUNTY RECORDER IN THE COUNTY OF SACRAMENTO, STATE OF CALIFORNIA.

DONNA ALLRED
COUNTY RECORDER OF THE COUNTY OF SACRAMENTO, CALIFORNIA

BY: _____
DEPUTY

FILE: _____

VICINITY MAP



Legend
Boundary

1 " = 625 '

HARRIS & ASSOCIATES
22 EXECUTIVE PARK SUITE 200
IRVINE, CALIFORNIA 92614
800-827-4901

PROPOSED BOUNDARY MAP

City of Rancho Cordova
Community Facilities District No. 2018-2
County of Sacramento, California

Sheet 1 of 2

MEMORANDUM

ITEM 9.14.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Darcy Goulart, Planning Manager

SUBJECT: **PLANNING COMMISSION MEMBER NOMINATION AND SELECTION**

RECOMMENDATION

Continue the Planning Commission Member nomination and selection to the April 4, 2022 Regular City Council meeting.

RESULT OF RECOMMENDED ACTION

The item would be continued to the April 4, 2022 Regular City Council meeting.

BACKGROUND

At the regular meeting on February 22, 2022, the City Council continued this discussion to March 21, 2022. Additionally, the Council directed staff to look into correspondence that was received prior to the meeting, as well as gather any additional potential conflict of interest information from the Planning Commission applicants.

FISCAL IMPACT AND FUNDING SOURCE

No Fiscal Impact

ATTACHMENT(S)

None

MEMORANDUM

ITEM 10.1.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Stefan Heisler, Housing Manager

SUBJECT: **A RESOLUTION APPROVING THE 2021 COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) CONSOLIDATED ANNUAL PERFORMANCE EVALUATION REPORT FOR SUBMITTAL TO US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**

RECOMMENDATION

Adopt the Resolution of the City Council of the City of Rancho Cordova submitting the 2021 CDBG Consolidated Annual Performance and Evaluation Report (CAPER) to the US Department of Housing and Urban Development (HUD).

RESULT OF RECOMMENDED ACTION

The 2021 CDBG CAPER will be submitted for HUD review according to requirements and timelines.

BACKGROUND

The City receives an annual entitlement allocation of CDBG funds from HUD. The City received $635,018 of CDBG funds in Program Year (PY) 2021. CDBG allows the City to carry out housing and community development projects and programs, such as housing rehabilitation, neighborhood infrastructure improvements, and public services, for low- and moderate-income individuals, households, and neighborhoods.

HUD requires an annual evaluation of the programs and projects funded through its CDBG grant allocation, known as the CAPER. The PY 2021 CAPER describes the City's accomplishments in the implementation of programs and activities under the CDBG program. It also reports the progress of the City in meeting overall five-year goals and priorities identified as part of the 2020-2024 Consolidated Plan.

CDBG regulations require that the public be given a 15-day period in which to review the CAPER and provide comments prior to its approval by the City Council. A public notice announcing the availability of the CAPER was published in the Grapevine Independent on February 18, 2022, and copies of the CAPER were made available for public review at City Hall and on the City's website. The public comment period closed on March 19, 2022, and any comments received will be acknowledged and incorporated in the final draft of the CAPER and submitted to HUD.

PY 2021 was the City's second year of the 2020-2024 Consolidated Plan cycle. The City's program is in good standing with HUD, and program administrators have continued to work on refining guidelines and procedures, assisting service providers to provide technical assistance in administering CDBG funds, and partnering with regional neighbors to improve efficiencies and identify best practices for program administration.

A summary of the accomplishments achieved in 2021 include:

- Helping 328 low-income households, including families at risk of homelessness, remain in their housing;
- Completing 2,472 code enforcement inspections of general properties in the CDBG target area;
- Conducting 2,228 inspections of rental units in the CDBG target area;
- Providing social services and meals for 319 seniors in the community;
- Completing 13 housing rehabilitation projects on homes occupied by low-income households; and
- Providing youth mentoring services to 58 at-risk youth.

FISCAL IMPACT

The CAPER has no direct fiscal impact on the City.

ATTACHMENT(S)

1. Resolution
2. City of Rancho Cordova 2021 Consolidated Annual Performance and Evaluation Report (CAPER)

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 2021 COMMUNITY DEVELOPMENT BLOCK GRANT CONSOLIDATED ANNUAL PERFORMANCE AND EVALUATION REPORT FOR SUBMITTAL TO THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

WHEREAS, the City of Rancho Cordova has applied for and received Community Development Block Grant (CDBG) funds as an entitlement jurisdiction from the Government of the United States under Title I of the Housing and Community Development Act of 1974; and

WHEREAS, the Department of Housing and Urban Development (HUD) is the federal agency that promulgates regulations and oversees the administration of the CDBG program; and

WHEREAS, HUD requires that entitlement jurisdictions complete an annual evaluation of their grants programs through a report known as the Consolidated Annual Performance and Evaluation Report (CAPER); and

WHEREAS, City staff has completed the 2021 CAPER; and

WHEREAS, a public notice announcing the availability of the CAPER and a 15-day public comment period for the report were published in the Grapevine Independent on February 18, 2022; and

WHEREAS, the 15-day public comment period did open March 4, 2022, and closed March 19, 2022, and the CAPER has been considered by the Rancho Cordova City Council.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA that the City Council:

Approves the 2021 CAPER, authorizes the City Manager, or his designee, to submit the CAPER to HUD; and authorizes staff to make technical modifications to the CAPER as required by HUD, and pending any public comment received prior to March 19, 2022.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

City of Rancho Cordova

2021 Consolidated Annual Performance and Evaluation Report (CAPER)

Community Development Block Grant

CR-05 - Goals and Outcomes

Progress the jurisdiction has made in carrying out its strategic plan and its action plan. 91.520(a)

Listed below are the approved projects and programs that were funded using the City's 2021 CDBG allocation. These programs were selected through a competitive application process that occurred in July and August of 2020. Each project was selected to assist in carrying out the City's CDBG priority needs, as identified in the 2020-2024 Consolidated Plan's Strategic Plan section:

- $102,000 in funding was allocated for **Code Enforcement** ($51,000) services and the **Rental Housing Inspection** ($51,000) program, which provide health and safety code inspections for residential housing, businesses, and renter-occupied residential housing in the CDBG target area.
- $42,000 in funding was allocated to **Meals on Wheels by ACC,** a program that aids senior populations, including homebound seniors, by providing access to nutritious meals.
- $43,699 in funding was allocated to **Folsom Cordova Community Partnership** to help support the Group Mentoring Initiative program. This program provides youth support and improves community involvement through intensive one-on-one and group youth mentoring.
- $4,500 in funding was allocated to **Resources for Independent Living** to provide outreach and coordination for disability-related home modifications to households in Rancho Cordova.
- $62,414 in funding was allocated to **Boys & Girls Clubs of Greater Sacramento** for the Club Connect Program, which provides weekly kits to low-income youth and families that are in need of assistance.
- $9,900 in funding was allocated to **Sacramento Self-Help Housing** for a renter's helpline, which provides counseling and mediation services for landlord/tenant disputes for City residents in a housing crisis or dispute.
- $7,200 in funding was allocated to **Sacramento Self Help-Housing** for fair housing services, which includes advocacy, enforcement, mediation, and marketing and education materials.
- $24,213 in funding was allocated to **Sacramento Self-Help Housing** for housing counseling services, which help prevent discrimination and at-risk households from becoming homeless.
- $210,761 in funding was allocated to **Rebuilding Together Sacramento** for homeownership repairs through the Roof Rehab & Repair Program and the Critical Systems Home Repair program.
- $410,561 in funding was allocated to the **City of Rancho Cordova's Public Works Department** for an ADA Sidewalk Improvement project meant to meet the requirements of the Americans with Disabilities Act (ADA).
- $119,804 in funding was allocated to **the City of Rancho Cordova's Housing Division** for the

general administrative costs to facilitate and manage the CDBG program. Administrative costs include the management of monitoring efforts, assisting subrecipients of CDBG funds with information and guidance on CDBG policies and procedures, planning for future CDBG goals and actions, and any other general administration activities involved in the implementation of the CDBG program.

Comparison of the proposed versus actual outcomes for each outcome measure submitted with the consolidated plan and explain, if applicable, why progress was not made toward meeting goals and objectives. 91.520(g)

Table 1, below, provides a detailed evaluation of the City's individual programs and projects, and compares them to the goals identified in the 2021 Annual Action Plan (AAP) and the 2020-2024 Consolidated Plan.

Project/Activity	Agency/Operator	Goal	Funding	Total Expenses	Indicator	Unit of Measure	Goal 5 yr Plan	Act. 5 yr Plan	% Comp.	Goal 2021	Act. 2021	% Comp.
Planning and Administration - PA-21												
Planning and Administration	City Staff	Planning and Administration	$119,804	$55,140.36	Successfully administered the CDBG program according to HUD regulations	Efficient Administration				NA	NA	NA
Planning and Administration: Fair Housing	Sacramento Self-Help Housing	Homelessness Prevention	$7,200	$6,236.49	Public Services Low/Mod Housing Benefit	Household Housing Unit				NA	NA	NA
Public Services - PS-21												
Homelessness Prevention - Households and Housing Units							2,100	707	34%	600	328	55%
Renters Helpline	Sacramento Self-Help Housing	Homelessness Prevention	$9,900	$9,174.22	Public Services Low/Mod Housing Benefit	Household Housing Unit				450	211	47%
Housing Counseling	Sacramento Self-Help Housing	Homelessness Prevention	$24,213	$24,213	Public Services other than Low/Mod Housing Benefit	Households Assisted				150	117	78%
Senior and Disability Services - Persons Assisted							500	545	109%	183	319	174%
Senior Nutrition Program	Meals on Wheels	Senior and Disability Services	$42,000	$42,000	Public Services other than Low/Mod Housing Benefit	Persons Assisted				180	319	177%
Home Modification Assistance Program	Resources for Independent Living	Senior and Disability Services	$4,500	$0	Public Services other than Low/Mod Housing Benefit	Persons Assisted				3	0	0%
Child and Youth Services - Persons Assisted							1,000	565	57%	220	524	238%
Group Mentoring Initiative	Folsom Cordova Community Partnership	Youth Services	$43,699	$34,838.97	Public Services other than Low/Mod Housing Benefit	Persons Assisted				120	58	48%
Club Connect Program	Boys & Girls Clubs of Greater Sacramento	Youth Services	$62,414	$50,245.73	Public Services other than Low/Mod Housing Benefit	Persons Assisted				100	466	466%
Housing Preservation Program HP-21												
Housing Preservation - Code Cases and Inspections							5,000	10,090	202%	3,600	4,700	131%
Code Enforcement	City Staff	Housing Preservation	$51,000	$51,000	Housing Code Enforcement/Foreclosed Property Care	Code Cases				2,000	2,472	124%
Rental Housing Inspection Program	City Staff	Housing Preservation	$51,000	$51,000	Housing Code Enforcement/Foreclosed Property Care	Code Cases				1,600	2,228	139%
Housing Preservation - Housing Units							70	33	47%	18	13	72%
Critical Repair Program	Rebuilding Together Sacramento	Housing Preservation-Homeless Prevention	$210,761	$210,761	Homeowner Housing Rehabilitated	Household Housing Unit				18	13	72%
Public Infrastructure PI-21												
Public Infrastructure - Persons Provided Improved Access							30,000	51,760	173%	51,760	51,760	100%
Public Facilities and Infrastructure	ADA Sidewalk Program	Public Infrastructure	$410,561	$296,362.59	Public Facility or Infrastructure Activities for Low/Moderate Income Housing Benefit	Infrastructure Projects Completed				51,760	51,760	100%

Table 1 - Accomplishments – Program Year & Strategic Plan to Date

Five programs performed at or above 100 percent of their anticipated program goals, while **five programs** performed below their projected goals in the 2021 program year. The following paragraphs detail each program's performance and provide explanation for each activity's achievements and challenges.

Below Goal - Explanation of goal outcomes

Sacramento Self-Help Housing (SSHH) Renters Helpline reached 47 percent of its goal, or 211 of the goal to serve 450 persons. SSHH continues to struggle with a reduction in staff capacity caused by the COVID-19 pandemic. The Renters Helpline is a regional program funded by the City and County of Sacramento, City of Elk Grove, City of Citrus Heights, and the City of Rancho Cordova. The City continues to jointly monitor this program with its partner jurisdictions and is seeking to improve SSHH's program capacity.

Sacramento Self-Help Housing (SSHH) Housing Counseling reached 78 percent of its goal, or 117 of the goal to serve 150 persons. This is an improvement from last year, as SSHH only reached 25 percent of its goal to serve 150 persons in 2020. However, due to poor overall performance, this program will not be funded by CDBG in the 2022 program year.

Resources for Independent Living reached 0 percent of its goal to serve 3 persons with home modification services. Resources for Independent Living had difficulty reaching persons in need of this service.

Folsom Cordova Community Partnership reached 48 percent of its goal, serving 58 out of 120 youth. Folsom Cordova Community Partnership continues to struggle with the impacts of COVID-19 and its consequences on youth involvement in its programs.

Rebuilding Together Sacramento reached 72 percent of its goal. A total of 13 projects were completed out of the annual goal of 18, all of which helped to serve low- to moderate-income individuals and seniors. The projects consisted of four roof replacements, two HVAC system replacements, one accessibility modification, and seven other critical system repairs. Rebuilding Together Sacramento did not reach its goal to assist 18 homes due to rising supply and labor costs as well as the provision of unexpected repairs to their clients' homes.

Above Goal – Explanation of Outcomes

Code Enforcement reached 124 percent of its goal. The City-operated Code Enforcement program continues to help proactively address health and safety issues in both residential and commercial neighborhoods in the CDBG target area. In the 2021 program year, Code Enforcement officers responded to a total of 2,472 instances of code violation issues.

Rental Housing Inspection reached 139 percent of its goal. The Rental Housing Inspection program has been a pivotal program in addressing various housing conditions in rental housing units in the CDBG target area. The City uses CDBG funding to leverage the program and support the goal of inspecting

every registered rental unit in the City in two-year cycles. The program allows the City to proactively address deferred maintenance and housing conditions that pose health and safety risks to tenants without requiring tenants to first report on the housing conditions and risk potential retaliation from property owners and landlords. In the 2021 program year, 2,228 inspections occurred through the Rental Housing Inspection program.

The **City's Public Work's Sidewalk Improvement** project began construction during the program year and has drawdown funds. This project is still in progress and will be completed in 2022.

Meals on Wheels reached 177 percent of its goal. The Meals on Wheels program expected to serve 180 seniors but ended up assisting a total of 319 seniors in the program year. Due to COVID-19, there was higher demand for its services.

Boys & Girls Club reached 466 percent of its goal and was able to serve 466 youth, over its goal to serve 100.

Assess how the jurisdiction's use of funds, particularly CDBG, addresses the priorities and specific objectives identified in the plan, giving special attention to the highest priority activities identified.

The 2021 program year was the second year of the 2020-2024 Five Year Consolidated Plan. The 2020-2024 Consolidated Plan identifies the following nine goals and priorities for projects that the City intends to fund through CDBG allocations during the plan's five-year cycle. Those goals are as follows:

• Homelessness Prevention	• Public Infrastructure	• Public Facilities
• Senior and Disability Services	• Homeless Housing	• COVID-19 Preparation, Prevention, and Response
• Child and Youth Services	• Housing Preservation Program	• Program Administration

CDBG-funded programs in the 2021 program year aligned with seven of the nine goals that are outlined in the 2020-2024 Consolidated Plan. The seven goals supported in 2021 were Homelessness Prevention, Senior Services, Child and Youth Services, Public Infrastructure, Housing Preservation Program, COVID-19 Preparation, Prevention, and Response, and Program Administration (through CDBG-CV funding). Table 1 above shows these goals and their associated projects in more detail, along with the one-year progress against the five-year goals established in the Consolidated Plan.

CARES Act CDBG-CV Funding Summary (Round 3 Allocation)

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES), Public Law 116-136 was signed by the president of the United States. This made available $5 billion in Community Development Block Grant Coronavirus (CDBG-CV) funds to respond to the growing effects of the historic

COVID-19 public health crisis. The Department of Housing and Urban Development (HUD) informed the City of Rancho Cordova that CARES Act funding would be allocated to the City based on the existing entitlement formulas for the CDBG program.

CDBG-CV funding was allocated to jurisdictions in three phases. HUD allocated the first and third phases of CDBG-CV funds to the City in the amount of $373,379 and $487,938, respectively. The City did not receive funding in the second phase of funding. During the 2021 program year, the City allocated the third phase of funding (Round 3) to public service projects. Each project was selected to assist in carrying out the City's CDBG priority need of COVID-19 Preparation, Prevention, and Response, as identified in the amended 2020-2024 Consolidated Plan's Strategic Plan. The following explanations are only brief summaries of program activities for Round 3 of CDBG-CV funding. The City of Rancho Cordova will provide the public with a full and more detailed report on all CARES Act-funded activities once further direction is provided by HUD regarding reporting requirements.

- **CDBG-CV Round 3 Activity Summaries:**
    - $7,697 in funding was allocated to **Sacramento Self-Help Housing** for a renter's helpline, which provided counseling and mediation services for landlord/tenant disputes for City residents in a housing crisis or dispute. (Note: funding for this activity is from CDBG-CV Round 1 because SSHH's contract was extended into the 2021 program year).
    - $20,000 in funding was allocated to **Sacramento Self-Help Housing** for Navigator services, a program that provided support to transitional homeless and susceptible individuals by way of providing up to three months of rental and utility assistance and covering direct deposits.
    - $150,000 in funding was allocated to **Folsom Cordova Community Partnership** for Relief Safety Net Services, which provided rental assistance, utility assistance, and emergency services, including the provision of food, diapers, and disinfectant supplies.
    - $35,000 in funding was allocated to **Boys & Girls Clubs of Greater Sacramento** to provide clothing and cold weather items to youth as well as academic packets, online club programs, food and snacks, books, DIY STEM activities, and family health resources.
    - $125,000 in funding was allocated to **Meals on Wheels by ACC** for a senior nutrition program that would take over for the Great Plates program, which exhausted its funding in the 2021 program year.
    - $105,000 in funding was allocated to **Rebuilding Together Sacramento** for homeownership repairs through the Roof Rehab & Repair Program and the Critical Systems Home Repair program.

- $52,938 in funding was allocated to **the City of Rancho Cordova's Housing Division** for the general administrative costs to facilitate and manage the CDBG-CV program. Administrative costs include the management of monitoring efforts, assisting subrecipients of CDBG-CV funds with information and guidance on CDBG-CV policies and procedures, and any other general administration activities that are involved in the implementation of the CDBG-CV program.

Table 2, below, provides a detailed evaluation of the City's individual CDBG-CV programs and projects, including accomplishments achieved and funds expended.

Project/Activity	Agency/Operator	Goal	Funding	Total Expenses	Indicator	Unit of Measure	Goal	Act.	% Comp.
Planning and Administration	City Staff	COVID-19 Preparation, Prevention, and Response	$52,938	$33,983	NA	NA	NA	NA	NA
Renters Helpline	Sacramento Self-Help Housing	COVID-19 Preparation, Prevention, and Response	$7,697	$0	Public Services Low/Mod Housing Benefit	Persons Assisted	420	0	0%
Navigator	Sacramento Self-Help Housing	COVID-19 Preparation, Prevention, and Response	$20,000	$5,194.43	Public Services Low/Mod Housing Benefit	Persons Assisted	40	3	8%
Senior Nutrition Program	Meals on Wheels by ACC	COVID-19 Preparation, Prevention, and Response	$125,000	$69,316	Public Services other than Low/Mod Housing Benefit	Persons Assisted	148	106	72%
Emergency Services	Folsom Cordova Community Partnership	COVID-19 Preparation, Prevention, and Response	$60,000	$43,313	Public Services other than Low/Mod Housing Benefit	Persons Assisted	160	587	367%
Rental Assistance	Folsom Cordova Community Partnership	COVID-19 Preparation, Prevention, and Response	$90,000	$86,321	Public Services Low/Mod Housing Benefit	Persons Assisted	60	339	565%
Clothes & Kicks for Kids!	Boy & Girls Clubs of Greater Sacramento	COVID-19 Preparation, Prevention, and Response	$35,000	$35,000	Public Services other than Low/Mod Housing Benefit	Persons Assisted	155	170	110%
Critical Repair Program	Rebuilding Together Sacramento	COVID-19 Preparation, Prevention, and Response	$105,000	$105,000	Public Services Low/Mod Housing Benefit	Households Assisted	4	5	125%

Table 2 - Accomplishments – Program Year Accomplishments

CR-10 - Racial and Ethnic composition of families assisted

Describe the families assisted (including the racial and ethnic status of families assisted). 91.520(a)

Race	CDBG	%
White	548	46.28%
Black or African American	194	16.39%
Asian	129	10.90%
American Indian or American Native	25	2.11%
Native Hawaiian or Other Pacific Islander	13	1.10%
American Indian or American Native and White	4	0.34%
Black or African American and White	3	0.25%
Asian and White	12	1.01%
American Indian or American Native and Black/African American	9	0.76%
Other Multi-Racial	247	20.86%
Total	**1,184**	-
Ethnicity	**CDBG**	**%**
Hispanic	192	16.22%
Not Hispanic	992	83.78%
Total	**1,184**	-

Table 3 – Table of assistance to racial and ethnic populations by source of funds

Narrative

The table above shows the racial and ethnic distribution of persons who received assistance or services through the regular entitlement CDBG program during the 2021 program year.

The City strives to make all of its programs and activities available to eligible low- and moderate-income residents regardless of sex, race, religious background, or disability. All of the CDBG-funded public service programs, including senior services, youth services, and housing counseling, are available to residents citywide. Projects that focus on facility or infrastructure improvements are generally limited to the CDBG target area to help make sure they benefit as many low- and moderate-income residents as possible.

CR-15 - Resources and Investments 91.520(a)

Identify the resources made available

Source of Funds	Source	Resources Made Available	Amount Expended During Program Year
CDBG	public - federal	$1,037,052	$835,850.36
CDBG-CV	public - federal	$487,938	$380,560.92

Table 4 - Resources Made Available

Narrative

In the 2021 program year, the City received an award of $635,018, and had $402,034 in prior year rollover funds. The following is a list of 2021 City CDBG programs and approved allocation amounts:

- Planning and Administration
  - Planning and Administration – $119,804
  - SSHH: Fair Housing Services – $7,200
- Housing Preservation Program
  - Rental Housing Inspection Program – $51,000
  - Code Enforcement – $51,000
  - Housing Repair – $210,761
- Non-Housing Community Development Needs
  - Public Infrastructure and Facilities
    - ADA Sidewalk Improvement Project – $410,561
  - Public Services
    - Folsom Cordova Community Partnership: Group Mentoring Initiative – $43,699
    - Meals on Wheels: Senior Nutrition – $42,000
    - SSHH: Renters Helpline – $9,900
    - SSHH: Housing Counseling – $24,213
    - Resources for Independent Living: Home Modification Assistance – $4,500
    - Boys & Girls Clubs of Greater Sacramento: Club Connect Program – $62,414

All recipient and subrecipient programs performed according to CDBG Laws and Regulations, found in the Federal Code of Civil Procedure, 24 Code of Federal Regulations (CFR) Part 570 Community Development Block Grants. In addition to all laws and regulations, the City and its subrecipients have made regular drawdowns and completed quarterly reports. All projects, aside from the ADA Sidewalk Improvement project, were completed during the program year, and all projects were completed within their allocated budget. The City has met timeliness requirements every year since becoming an entitlement jurisdiction.

Identify the geographic distribution and location of investments

Target Area	Planned Percentage of Allocation	Actual Percentage of Allocation	Narrative Description
CDBG Target Area	68%	79%	Rental Housing Inspection, Code Enforcement, Critical Repairs, and ADA Sidewalks project take place in the CDBG target area

Table 5 – Identify the geographic distribution and location of investments

Narrative

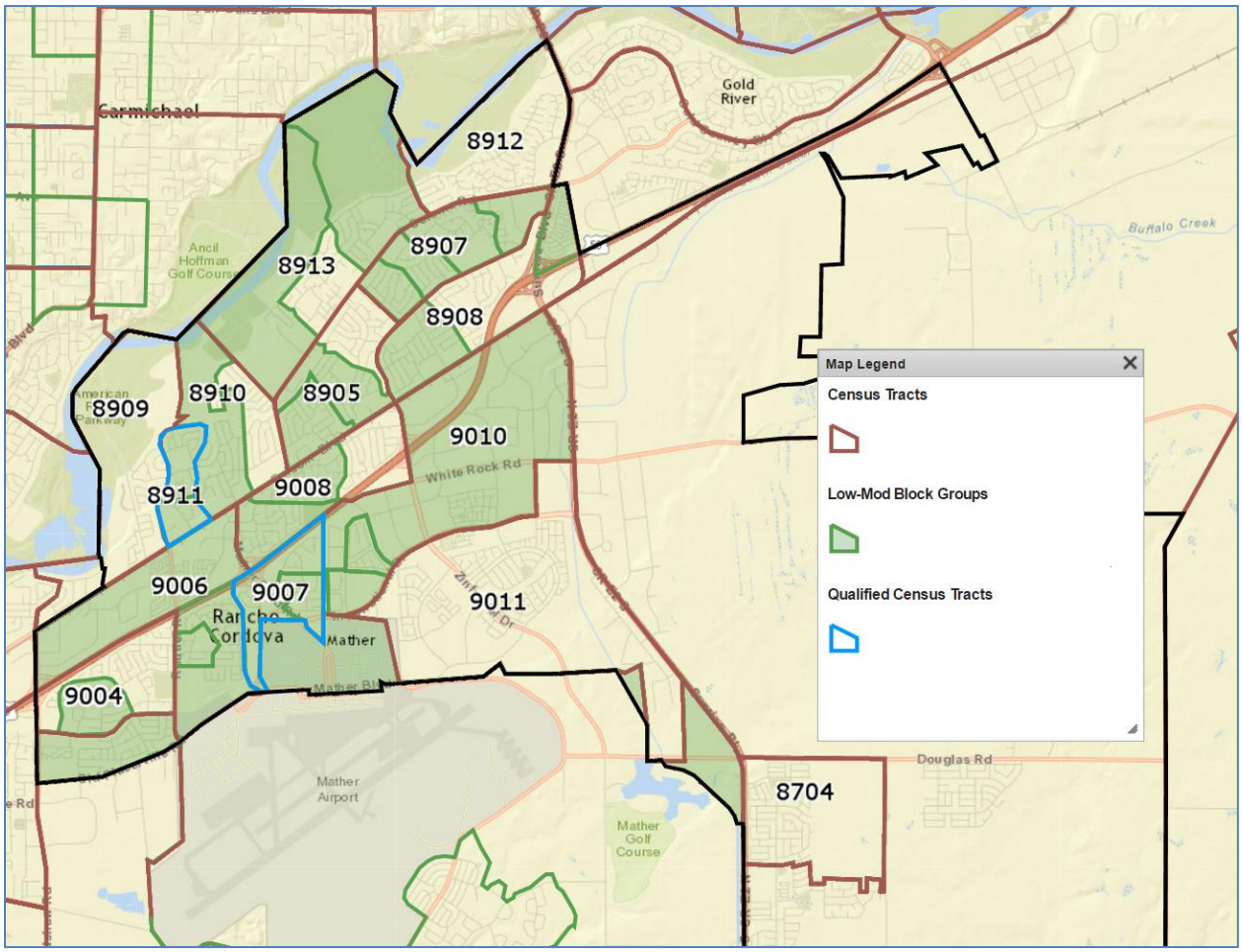
Of the total funding available for the 2021 program year, approximately 79 percent ($609,123) was spent on activities in the CDBG target area (net administration expenses).

Geographic distribution of activities is widely varied, but most activities take place in or near low- or moderate-income areas. The location of an activity largely depends on the type of activity. Some of the City's 2021 CDBG activities, such as Meals on Wheels and SSHH's Housing Counseling, are able to serve populations across the entire City, while other projects and programs are located and provided to populations in the CDBG target area. The primary geographic area identified for use in CDBG-funded activities is the CDBG target area, which is made up of census tracts in which more than 50 percent of households earn less than 80 percent of area median income (AMI).

The Rental Housing Inspection program and Code Enforcement activities, funded by CDBG, take place in the City's designated CDBG target areas, as seen in **Map 1** below. The investment of other public and private funds in these areas will provide a comprehensive approach to revitalization.

As shown in **Map 1**, much of the City, including many residential neighborhoods, is in the CDBG target area. This allows for a significant percentage of the annual CDBG allocation to be focused in these low-moderate income areas of the City.

Map 1


Carmichael
Gold River
Buffalo Creek
Ancil Hoffman Golf Course
8912
8907
8913
8908
8909
8910
8905
9010
8911
9008
White Rock Rd
9006
9007
9011
Rancho Cordova
Mather
9004
Douglas Rd
8704
Mather Airport
Mather Golf Course
Map Legend
Census Tracts
Low-Mod Block Groups
Qualified Census Tracts

Leveraging

Explain how federal funds leveraged additional resources (private, state and local funds), including a description of how matching requirements were satisfied, as well as how any publicly owned land or property located within the jurisdiction that were used to address the needs identified in the plan.

Federal funds require additional regulation, labor compliance standards, and administration that can add a significant cost burden to a new affordable housing project or a rehabilitation project. For new construction and large-scale rehabilitation of affordable housing, the City prefers to pursue funding that does not significantly increase the building cost, unless there are sufficient federal funds to benefit the project's bottom line. The CDBG allocation to the City does not add sufficient value to offset the increased costs for most of the City's affordable housing development efforts. Therefore, the City focuses CDBG funding either on projects that are already burdened with the federal reporting requirements or on projects where there is no other viable funding source and the project can be completed with the available CDBG funding.

The City's CDBG program does not have any match requirements. The City has pursued State of California housing funds whenever appropriate and will continue to look for opportunities to leverage private and non-federal resources. The City will also begin to require that CDBG subrecipients demonstrate sufficient committed non-CDBG funding, so that projects will have the best results for the community and the low- and very low-income residents they are intended to serve. Sources may include tax credits, infrastructure infill grants, sustainable community grants, veterans housing grants, and, for the single-family owner-occupied housing rehabilitation program, CalHome funding.

The City did not utilize publicly owned land or property to address the needs identified in the 2021 Annual Action Plan.

CR-20 - Affordable Housing 91.520(b)

Evaluation of the jurisdiction's progress in providing affordable housing, including the number and types of families served, the number of extremely low-income, low-income, moderate-income, and middle-income persons served.

	One-Year Goal	Actual
Number of Homeless households to be provided affordable housing units	0	0
Number of Non-Homeless households to be provided affordable housing units	0	0
Number of Special-Needs households to be provided affordable housing units	0	0
Total	0	0

Table 6 – Number of Households

	One-Year Goal	Actual
Number of households supported through Rental Assistance	0	0
Number of households supported through The Production of New Units	0	0
Number of households supported through Rehab of Existing Units	0	0
Number of households supported through Acquisition of Existing Units	0	0
Total	0	0

Table 7 – Number of Households Supported

Discuss the difference between goals and outcomes and problems encountered in meeting these goals.

In the 2021 program year, the City continued to address its affordable housing needs in a variety of ways. For example, the City's partnership with Rebuilding Together Sacramento made it possible for income-qualified residents to receive health and safety repairs to their homes. These residents might otherwise not have a habitable home, which could lead to homelessness. The repair program also contributes toward the continued preservation of the existing stock of affordable housing, a high priority goal identified in the 2020-2024 Consolidated Plan. This program successfully repaired 13 homes within the CDBG target area.

The City also preserves affordable housing through code enforcement and rental inspection efforts, which ensure that all rental housing is safe and habitable. The continued success of the Rental Housing

Inspection and Code Enforcement programs, run by the City's Neighborhood Services Division, is largely because of the funding and technical assistance received through the CDBG program.

Discuss how these outcomes will impact future annual action plans.

The City plans to address housing needs, but without significant additional resources, the City will continue to focus CDBG dollars where they will do the most good for low- and moderate-income households through better access to affordable housing, services, and public infrastructure.

The City's plan for the 2022 program year is to continue cooperating and actively engaging the County of Sacramento in its attention to homelessness issues, including chronic homelessness and near homelessness. The City will continue to contract with SSHH to provide housing counseling and homelessness prevention to Rancho Cordova residents. For anyone that wishes to learn more information about SSHH, information is accessible to Rancho Cordova residents at https://www.sacselfhelp.org/, by telephone, and by walk-in appointment.

Due to the continued success of Rebuilding Together Sacramento's Critical Systems Repair project, the City will continue to fund this program in the 2022 AAP. This program has proven to be effective in assisting low-income individuals with housing repairs and directly benefitting individuals who lack alternative options to housing improvements. Additionally, this organization continues to abide by CDBG reporting and reimbursement procedures, which is a beneficial aspect to the administration costs of the CDBG program.

With 2021 program funds, the City allocated $102,000 to the two City-run Neighborhood Services projects: the Rental Housing Inspection program and Code Enforcement. These programs were able to exceed their planned goals for the program year and provide the CDBG target area with blight and nuisance prevention, along with assistance in mitigating rental housing unit dilapidation and safety problems. The City will continue to allocate CDBG funds to these two programs for the 2022 program year.

Include the number of extremely low-income, low-income, and moderate-income persons served by each activity where information on income by family size is required to determine the eligibility of the activity.

Number of Households Served	CDBG Actual	% Total
Extremely Low Income	629	53%
Low Income	356	30%
Moderate Income	132	11%
Non-Low/Moderate Income	67	6%
Total	**1,184**	-
Total Low-to-Moderate Income Persons Served	1,117	94%

Table 8 – Number of Households Served

Narrative Information

Income categories for the CDBG program are set through the HUD Adjusted Median Family Income (HAMFI) formula. HUD adjusts this formula each year to address inflation and changes in household costs. The CDBG requirement is that a minimum of 70 percent of all CDBG recipients must be low to moderate income. The HAMFI for Sacramento County in the 2021 program year was $90,625 for a family of four; since 80 percent of HAMFI is considered low income, this calculates to $72,500 for a family of four. All persons assisted with CDBG-funded programs are required to provide income data to identify which category they fit: extremely low income (30 percent or less of HAMFI), low income (31-50 percent of HAMFI), moderate income (51-80 percent of HAMFI), or above moderate income (81+ percent of HAMFI). About 94 percent of persons assisted through CDBG funds were low- to moderate-income individuals.

CR-25 - Homeless and Other Special Needs 91.220(d, e); 91.320(d, e); 91.520(c)

Evaluate the jurisdiction's progress in meeting its specific objectives for reducing and ending homelessness through:

Reaching out to homeless persons (especially unsheltered persons) and assessing their individual needs

The City established a set of strategies and priority actions to expand homeless services and provide supportive housing opportunities to elderly persons, disabled veterans, and other persons with special needs. Since CDBG funding fluctuates from year to year, the City is seeking additional funding for programs and services aimed at assisting homeless persons and non-homeless special needs populations to supplement funding of current programs.

During the 2021 program year, the City continued its relationship with SSHH to assist homeless and special needs populations. SSHH provides vital homelessness prevention services and resources to individuals and families who are at imminent risk of homelessness due to housing discrimination and/or landlord disputes. SSHH provides a Renters Helpline, as well as Housing Counseling, to help with landlord/tenant disputes and housing discrimination cases. A collaborative approach between SSHH, California Apartment Association, and Project Sentinel provides a telephone hotline, tenant education and housing assistance, and mediation services for Rancho Cordova residents in a housing crisis or dispute. The SSHH team deals directly with concerns about landlord/tenant disputes while fair housing issues are identified and referred to Project Sentinel. The collaborative team aims to reduce housing discrimination, promote public awareness of fair housing laws and rights, and assist persons with disabilities, and to protect residents in danger of homelessness.

The City also contracts with SSHH for one full-time Outreach Navigator. The navigator seeks out homeless individuals and families to provide outreach services, which include connecting clients with immediate resources such as mental health services, general health services, substance abuse services, income services, identification documents and other documents necessary to help homeless persons meet the ultimate goal of finding shelter and housing. The Outreach Navigator also assists in gathering information through the Vulnerability Index Service Prioritization Decision Tool or VISPDAT. This program is not funded through CDBG but is supported through other City funds.

Addressing the emergency shelter and transitional housing needs of homeless persons

The City participates in the regional Continuum of Care (CoC) through the nonprofit Sacramento Steps Forward (SSF). SSF manages the Sacramento Area CoC process, which establishes a set of strategies and priority actions to expand the City's homeless programs and services and provide supportive housing opportunities and services. The CoC is working on several system updates to improve the flow of shelters and transitional housing, which includes policy and process improvement for the County shelters, lower barriers to housing programs, and improvement to placements into the different housing

services offered in the region. Rancho Cordova is also home to the Mather Community Campus, a transitional living facility that supports homeless individuals and families and includes job training, as well as housing and supportive services. The City also coordinated with the County, Mather Veterans Administration Hospital, and a competitively selected nonprofit development team to develop a comprehensive range of housing opportunities for homeless, near-homeless, and disabled veterans. None of these efforts are funded through CDBG and are all supported through other funding sources and staff time.

Helping low-income individuals and families avoid becoming homeless, especially extremely low-income individuals and families and those who are: likely to become homeless after being discharged from publicly funded institutions and systems of care (such as health care facilities, mental health facilities, foster care and other youth facilities, and corrections programs and institutions); and, receiving assistance from public or private agencies that address housing, health, social services, employment, education, or youth needs

The City contracts with SSHH to provide counseling to low-income households who are at risk of becoming homeless. This program is intended to prevent homelessness, and the counseling helps individuals and households to maintain housing stability. Clients receiving services from SSHH also include those discharged from public institutions. The Housing Counseling providers keep a detailed database of housing resources that are available to homeless and near-homeless residents. SSHH also provided assistance to tenants facing relocation as the result of the sale or dilapidation of their housing or other catastrophe. Residents can also call the Renters Helpline at (916) 389-7877 and get access to homeless and homelessness prevention services. Through a collaborative approach between SSHH, the California Apartment Association, and Project Sentinel, the City is able to help facilitate the provision of a telephone hotline, tenant education, housing assistance, and mediation services for Rancho Cordova residents in a housing crisis or dispute.

Helping homeless persons (especially chronically homeless individuals and families, families with children, veterans and their families, and unaccompanied youth) make the transition to permanent housing and independent living, including shortening the period of time that individuals and families experience homelessness, facilitating access for homeless individuals and families to affordable housing units, and preventing individuals and families who were recently homeless from becoming homeless again

The City refers individuals to housing counseling providers that keep a detailed database of housing resources that are available to homeless and near-homeless residents. Rancho Cordova is home to the Mather Veterans Village, which provides transitional and permanent supportive housing specifically for homeless and near-homeless veterans in the region. The Mather Community Campus provides units as both a permanent and transitional living facility, as well as offering job training and supportive services for homeless individuals and families to prevent repeated patterns of homelessness. The City does not receive enough in CDBG funds to support these projects solely through the CDBG program and relies on

coordination with other agencies and nonprofits as well as alternative funding sources to support these projects.

Additionally, the City's 2013-2021 Housing Element identifies a specific policy to remove potential constraints to housing for persons with disabilities:

- H.3.3 – Provide housing for special needs populations, including housing accessible for persons with disabilities (including veterans as a primary target group), large households, homeless individuals, and single-parent households.

Projects such as the Mather Veterans Village work to address underserved needs of individuals in the City with disabilities and other special needs. Concurrently, goals and policies in the Housing Element, such as the one mentioned above, work to break down barriers to affordable housing among these same populations.

CR-30 - Public Housing 91.220(h); 91.320(j)

Actions taken to address the needs of public housing

The City does not own any public housing; however, the local public housing authority, Sacramento Housing and Redevelopment Agency (SHRA), manages 747 public housing units across 10 apartment complexes and several single-family homes throughout the City. Additionally, there are 312 affordable housing units of various sizes (1, 2, 3, and 4 bedrooms) in the City, financed by SHRA. The 2020-2024 Consolidated Plan does not include plans to construct or operate public housing.

Actions taken to encourage public housing residents to become more involved in management and participate in homeownership

While the City is dedicated to increasing community outreach and involving neighborhoods in the decision-making process, the City does not plan to participate in any activities to increase resident involvement in SHRA-owned and -operated public housing unless specifically asked to do so by SHRA.

Actions taken to provide assistance to troubled PHAs

SHRA has a Satisfactory Participation Score with HUD.

CR-35 - Other Actions 91.220(j)-(k); 91.320(i)-(j)

Actions taken to remove or ameliorate the negative effects of public policies that serve as barriers to affordable housing such as land use controls, tax policies affecting land, zoning ordinances, building codes, fees and charges, growth limitations, and policies affecting the return on residential investment. 91.220 (j); 91.320 (i)

The City has undertaken a number of actions to reduce potential barriers and constraints to affordable housing and housing for special needs populations. These actions include identifying funds in support of affordable housing development and offering fee reductions, regulatory incentives, density incentives, and the operation of a home rehabilitation and repair program, as well as several other options. Details of these actions can be found in the City's 2013–2021 Housing Element. The Housing Element includes a thorough analysis of governmental and regulatory barriers to affordable housing. The City has been aggressive in pursuing affordable housing development opportunities and has removed regulatory barriers. Note: the City adopted the 2021-2029 Housing Element during the 2021 program year.

Actions taken to address obstacles to meeting underserved needs. 91.220(k); 91.320(j)

The need for affordable housing for lower-income households and supportive housing for persons with special needs continues to exceed available resources. The City has provided services, discussed previously in the Homeless and Other Special Needs narrative, and has worked to offer housing opportunities to underserved groups, including homeless individuals and veterans with disabilities. The City continues its active participation in County, Mather Veterans Administration Hospital, and service provider efforts to locate and develop a continuum of housing opportunities for disabled veterans.

The City has continued its work with neighboring jurisdictions, such as the County of Sacramento, City of Sacramento, City of Citrus Heights, and City of Elk Grove, and agencies such as SHRA and the Sacramento Area Council of Governments, to address the regional issues that affect the needs of target-income persons and special needs populations. The goal in this effort is to reduce the burden of providing services within each jurisdiction with CDBG funding. The City has worked directly with service providers and local, state, and federal agencies (e.g., HUD and the California Department of Housing and Community Development).

The City also plans to use its CDBG funds to promote the local provision of services for low- and moderate-income residents in Rancho Cordova. Furthermore, the City will encourage area service providers to offer services in the community. In the 2022 program year, several organizations (including SSHH, Meals on Wheels, and Folsom Cordova Community Partnership) are being funded with CDBG funds and continuing to provide services in Rancho Cordova.

The City addressed the worst-case housing needs of persons with disabilities through activities that serve the City generally. The City funded the Renters Helpline, Housing Counseling, Code Enforcement, Rental Housing Inspection Program, and Critical Repair Program during the 2021 program year:

- Renters Helpline responds to requests from Rancho Cordova residents in danger of becoming homeless.
- Housing Counseling provides support services to residents at risk of homelessness or to homeless persons to aid them in securing housing.
- Code Enforcement identifies health and safety violations present in single-family housing.
- Rental Inspection Program inspects rental units for health and safety violations.
- Critical Repair Program provides home repairs to single-family homeowners.

Actions taken to reduce lead-based paint hazards. 91.220(k); 91.320(j)

The City works with a certified lead-based paint inspector to identify lead-based paint hazards when necessary. This inspector is qualified to conduct lead-based paint identification, assessment, and clearance services to reduce lead hazard.

The City complies with the Residential Lead-Based Paint Hazard Reduction Act of 1992 as implemented in 24 CFR 35 Subpart B. Compliance includes the following strategy:

Housing Rehabilitation: All housing rehabilitation activities funded under this plan will assess lead hazard risk before proceeding, including the planned Emergency Repair Grant Program. This applies to any work on structures constructed prior to January 1, 1978. The work will comply with the appropriate level of protection indicated in 24 CFR 35.100. All work on homes constructed prior to January 1, 1978, will have a lead hazard risk assessment conducted as described in 24 CFR 35.110. At the completion of any prescribed lead hazard reduction activities, a clearance examination is required as described in 24 CFR 35.110.

When needed, Rebuilding Together Sacramento conducts lead-based paint inspections through a contractor. Additionally, the City provides free printed information regarding the potential hazards of lead-based paint at the City Hall permit counters.

Actions taken to reduce the number of poverty-level families. 91.220(k); 91.320(j)

The City continues to fund public services intended to help poverty-level families. The City's anti-poverty strategy is based on revitalizing Rancho Cordova's existing housing stock to provide safe and decent places to live, and on supporting the services of social services agencies that promote income and housing stability. The City's strategy also includes supportive services for target-income residents, including senior and youth services. For example, the City continued to fund SSHH in the 2021 program year, as SSHH provides vital services and resources to families who are homeless or are at imminent risk of homelessness, and Rebuilding Sacramento Together, a program that helps low-income homeowners rehabilitate necessary health- and safety-related issues in their homes in order to avoid homelessness due to habitability issues.

The City also continued to fund other anti-poverty programs, such as the Senior Nutrition program

offered by Meals on Wheels and the Folsom Cordova Community Partnership's Group Mentoring Initiative for Youth populations and their families. This latter program supports youth and enhances community involvement through intensive one-on-one youth mentoring to help improve economic opportunities for low-income youth in Rancho Cordova.

In November 2020, Rancho Cordova voters approved Measure R, a half-cent sales tax measure, which will generate an estimated $8 million revenue for the City's general fund. Funds may be used to attract jobs and address homelessness.

In November 2014, Rancho Cordova voters approved Measure H, a half-cent sales tax measure, which has generated revenue for the City's general fund. The local fund is called the Community Enhancement Fund and provides funding for projects administered by individual residents, organizations, businesses, and community partners who are interested in enhancing the Rancho Cordova community. During the 2021 CDBG program year, there were several Community Enhancement Fund projects, many of which will reduce the number of poverty-level families. Projects include, but are not limited to, on-site youth career centers, senior nutritional support, youth meal services, food pantry improvements, home repairs, and a winter homeless shelter.

Actions taken to develop institutional structure. 91.220(k); 91.320(j)

The City developed a monitoring system to ensure that the activities carried out in furtherance of the AAP are done so in a timely manner in accordance with the federal monitoring requirements of 24 CFR 570.501 and 2 CFR 200 and all other applicable laws, regulations, policies, and sound management and accounting practices. The objectives of the monitoring plan are described in more detail in the Consolidated Plan.

The City's Community Development Department is responsible for the management, implementation, and monitoring of Consolidated Plan documents, including the AAP and all other subsequent documents related to the implementation of the CDBG program.

City staff will administer the programs and activities funded with CDBG funds. These staff members will work with the individual City divisions, such as Public Works, as well as partner districts, such as Folsom Cordova Unified School District, to develop procedures and coordinate the administration of programs that will be carried out by these divisions. Designated staff will also work closely with the providers of CDBG-funded services and programs that are not carried out by the City.

Actions taken to enhance coordination between public and private housing and social service agencies. 91.220(k); 91.320(j)

The City strives to provide training opportunities and technical assistance to grant subrecipients and works to establish best practices. The City's goal is for all subrecipients to update their programs to integrate industry best practices into the day-to-day and long-term activities of programs. In addition,

the City is continuing its initiative to coordinate activities with neighboring cities, especially in regard to responding to fair housing-related efforts. Coordinated efforts include joint monitoring of common service providers, standardizing reporting requirements and forms to encourage efficiency and consistency, and sharing information from workshops.

During the 2021 program year, the City implemented contracts with local service organizations that provide assistance to senior/elderly households, households at imminent risk of homelessness, and special needs populations. These subrecipients have all received CDBG funding in the past from the City. City staff and City Council have realized the continued need for these services.

The City will continue its work with neighboring jurisdictions, such as the County of Sacramento, City of Sacramento, City of Citrus Heights, and City of Elk Grove, and agencies such as SHRA and the Sacramento Area Council of Governments, to address the regional issues that affect the needs of target-income persons and special needs populations. The City also intends to work directly with service providers and local, state, and federal agencies (e.g., HUD and the California Department of Housing and Community Development).

Identify actions taken to overcome the effects of any impediments identified in the jurisdictions analysis of impediments to fair housing choice. 91.520(a)

On June 21, 2021, the City of Rancho Cordova adopted the 2021–2029 Housing Element. The Housing Element includes an analysis of vacant and underused land in the City that can be developed into housing for low-, moderate-, and above moderate-income housing. It also contains an analysis of potential governmental and nongovernmental constraints to housing development in the City as well as policies and goals the City should take to produce more affordable housing.

During the 2021 program year, the City partnered with SSHH to provide fair housing and landlord/tenant services. The City is also a partner in the Renters Helpline, a service offered by SSHH that is designed to determine if calls they receive represent a fair housing issue or a landlord/tenant or life crisis issue. SSHH staff is trained to answer calls and make accurate determinations. In the City of Rancho Cordova, the Renters Helpline assisted 211 persons between January 1, 2021, and December 31, 2021.

CR-40 - Monitoring 91.220 and 91.230

Describe the standards and procedures used to monitor activities carried out in furtherance of the plan and used to ensure long-term compliance with requirements of the programs involved, including minority business outreach and the comprehensive planning requirements

City staff communicated with the subrecipients' staff responsible for each activity prior to the beginning of the program year. All subrecipients were informed of the obligations to collect the required information on income, household composition, and race and ethnicity. Staff provided technical assistance to subrecipients throughout the year as needed.

During the 2021 program year, City staff performed desk monitoring to examine the progress the subrecipients were making toward performance targets. Subrecipients are required to report the demographics of their service population on a quarterly basis, as well as additional supporting information such as general ledger and program accounting documents. Each subrecipient agreement contains provisions for reductions to or suspensions of payments in the event that targets are not being met (without valid reason) or past performance issues have not been resolved.

The City has continued to emphasize the importance for subrecipients to gather complete and accurate information on the persons and/or households they serve, and to regularly report their progress.

The City requires all applicable CDBG subrecipients to comply with minority/women business enterprise (MBE/WBE) requirements when procuring their activities. This is written into their subrecipient agreements. At each year's Notice of Funding Availability meeting, staff informs potential CDBG subrecipients that they will be subject to a monitoring every year that they receive CDBG funds. Additionally, for all construction projects that require adherence to Davis-Bacon, staff conducts a labor compliance review to ensure the project's procurement has followed MBE/WBE standards.

In November 2021, CDBG staff conducted monitorings of the Folsom Cordova Community Partnership and Rebuilding Together Sacramento CDBG activities. Both organizations were found to be operating CDBG activities in accordance with HUD regulations and their subrecipient agreements.

The City will continue to conduct ongoing desk monitoring on all CDBG-funded programs throughout the 2022 program year, as well as a monitoring of two subrecipients that will be selected at a later date. The CDBG program has successfully met expenditure deadlines in years past and is on target to meet its deadlines for the 2021 program year. The City is also current on quarterly and semi-annual reports due to HUD.

Citizen Participation Plan 91.105(d); 91.115(d)

Describe the efforts to provide citizens with reasonable notice and an opportunity to comment on performance reports.

This report was made available for public review during a 15-day public comment period from March 4, 2022, to March 21, 2022.

A public notice announcing its availability was published in the *Grapevine Independent* and posted on the City's website on February 18, 2022. The public notice included the purpose of the report, the premise of the CDBG program, information identifying the public hearing that will be held to approve of the CAPER, the address of City Hall, staff contact names, mailing addresses, phone numbers, the website to view the report, and information on where to direct comments and questions.

Copies of this CAPER are made available for public review and comment in electronic format found online on the City of Rancho Cordova's website (www.cityofranchocordova.org). A public hearing to approve of this report will be held on March 21, 2022, at the Rancho Cordova City Council meeting.

All public comments that are received regarding this report will be provided once the final CAPER has been approved by City Council on March 21, 2022.

CR-45 - CDBG 91.520(c)

Specify the nature of, and reasons for, any changes in the jurisdiction's program objectives and indications of how the jurisdiction would change its programs as a result of its experiences.

NA

Does this Jurisdiction have any open Brownfields Economic Development Initiative (BEDI) grants?

No.

[BEDI grantees] Describe accomplishments and program outcomes during the last year.

NA

MEMORANDUM

ITEM 10.2.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Elizabeth Sparkman, Community Development Director

SUBJECT: **A RESOLUTION APPROVING THE RIO DEL ORO SPECIFIC PLAN, IMPLEMENTATION PLAN FOR ELLIOTT HOMES, INC. WHICH ENSURES THAT ELLIOTT HOMES, INC. WILL CONSTRUCT AND PAY THE FULL COST OF INFRASTRUCTURE NEEDED TO SERVE THEIR PORTION OF THE PLAN AREA**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would approve the Rio Del Oro Specific Plan, Implementation Plan for Elliott Homes, Inc.

BACKGROUND

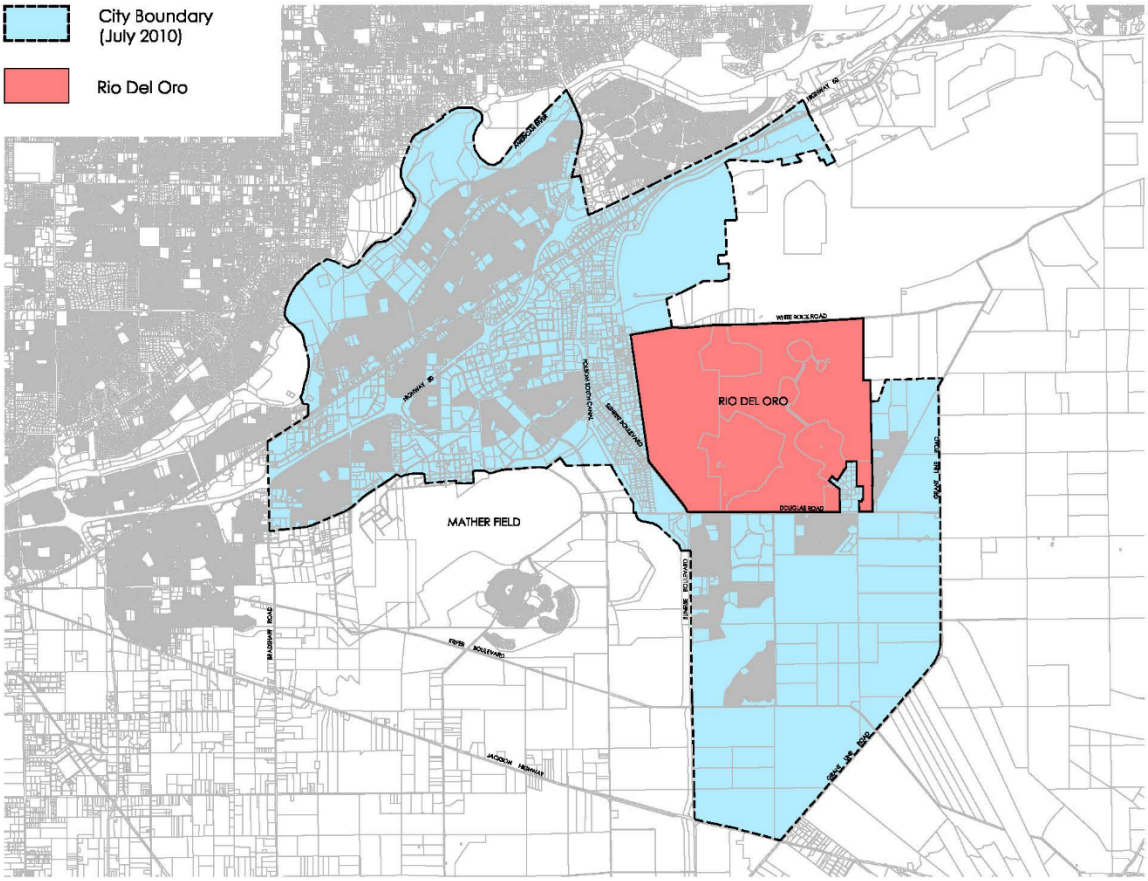
On August 29, 2016, the City Council approved the Tier Two items for the Rio del Oro Specific Plan Project (RDOSP) including an Addendum to the previously approved Environmental Impact Report/Environmental Impact Statement, a Specific Plan Amendment to amend components of the previously approved Specific Plan, increasing the allowed development by 588 residential units; a Public Facilities Financing Plan; a Large Lot Tentative Subdivision Map; an Infrastructure Phasing Master Plan; Affordable Housing Plans; and Amended and Restated Development Agreements. The location of the RDOSP in shown in **Figure 1** on the next page.

The Public Facilities Finance Plan (Finance Plan) set forth a strategy to finance required Backbone Infrastructure and other Public Facilities serving the land uses in the RDOSP. The Financing strategy is designed to assure the City that the required facilities will be constructed when needed and that the development within the RDOSP shall pay the full costs of infrastructure needed to serve the Plan Area, except where other funding sources are appropriate and available. The Financing Plan, in 2016 dollars, included the use of existing fee programs, development of a new Special Financing District, and the use of Mello-Roos Community Facilities District and private funding to finance the approximately $697 million in Backbone Infrastructure and Public Facilities Improvements. Of these costs, $71 million was expected to be funded by the RDOSP Special Financing District, $133.6 million was expected to be funded by private/other financing, and $492.4 million was

expected to be funded by existing and proposed City, County, and Other Agency fee programs.

An Infrastructure Phasing Master Plan is an exhibit to the Financing Plan and sets forth a conceptual phasing plan for the major backbone infrastructure needed to serve the RDOSP. The ten (10) development phases, comprised of Phases 1 - 5 for the Elliott Homes portion and Phases A - E for the Easton Development Company portion, can be developed independently of each other.

FIGURE 1



The Property Owners of the Elliott Homes, Inc. portion of the RDOSP, **Figure 2** on the following page**,** has engaged Economic & Planning Systems, Inc., to and prepare a report entitled “Rio Del Oro Specific Plan Implementation Plan – Elliott Homes, Inc.” (the “EHI Implementation Plan”) which ensures that the required facilities will be constructed when needed and that the development within the Elliott Homes portion of the RDOSP shall pay the full costs of infrastructure needed to serve their portion of the Plan Area, except where other funding sources are appropriate and available. As the property owner, EHI has elected not to implement a Special Financing District over their portion of the project to spread the costs of any improvements or facilities not otherwise covered by existing fee programs. Instead, EHI has elected to use private or other financing to make up the difference between total costs of construction, including frontage lanes, and those costs

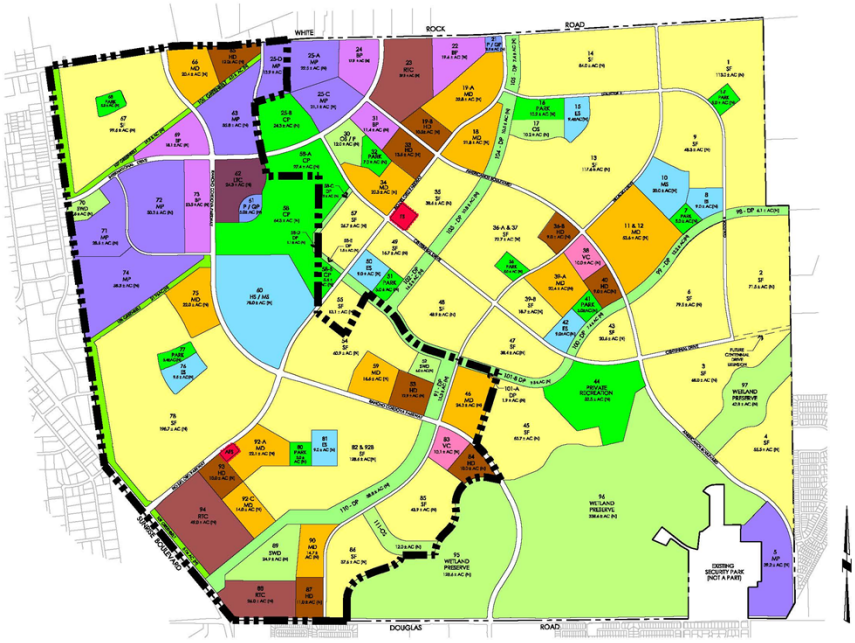
covered by credits in existing programs. A copy of the EHI Implementation Plan is included with this report, Attachment 2, Exhibit A to the Resolution, and is on file with the City Clerk.

FIGURE 2

RIO DEL ORO

LEGEND

ELLIOTT HOMES BOUNDARY



Facilities and Costs

The EHI Implementation Plan estimates the costs required to build the backbone infrastructure in Phases 1 - 5 and the estimated funding sources available. The Elliott Homes portion (Phases 1 - 5) will fund various types of infrastructure and public facilities that will serve development in this area. Infrastructure costs have been primarily developed by Wood Rodgers and details of these facilities and their itemized costs are shown in Appendices C and D of the EHI Implementation Plan. The remainder of the costs will be funded through various funding sources including:

- City Transportation Development Impact Fee
- City Storm Drainage Impact Fee Program
- Sacramento Area Sewer District
- Sacramento County Water Agency Zone 40

As detailed on Table 3 of the EHI Implementation Plan, total backbone infrastructure and public facilities costs at Project buildout of Phases 1 – 5 equal approximately $183.1 million ($2021). Including approximately $10.2 million in environmental mitigation costs, total improvement costs at Project buildout total approximately $193.4 million. Of these costs, $105.5 million is expected to be funded by private/other financing, and $87.9 million is expected to be funded by existing and proposed City, Sacramento County and Other Agency fee programs.

For ease of reference, the EHI Implementation Plan also does the following:

- summarizes provisions and fee structures contained within the Amended and Restated Development Agreement and the First and Second Amendments thereto;
- contains the phasing exhibits from the RDO Infrastructure Phasing Plan;
- contains roadway sizing and cross-sections from the Specific Plan; and
- contains maps of the conceptual parks and open space, bike and trails plan, and trails and open spaces plan that will be required to be constructed with development.

Staff will utilize the information contained in the EHI Implementation Plan to guide and require the construction of improvements in Phases 1 – 5 of the plan area. The EHI Implementation Plan is applicable only to the Elliott Homes, Inc. portion of the project and does not create a Special Financing District as referenced in the Finance Plan. It's possible, and likely, that in the future as the Easton Development Company portion of the project moves forward, that property owner may elect to implement the Financing Plan for Phases A - E through a Special Financing District.

it is recommended that the City Council consider and approve the Resolution adopting EHI Implementation Plan.

FISCAL IMPACT

There is no fiscal impact to the general fund.

ATTACHMENT(S)

1. Resolution
2. Exhibit A to the Resolution - EHI Implementation Plan

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 RIO DEL ORO SPECIFIC PLAN, IMPLEMENTATION PLAN FOR ELLIOTT HOMES, INC.

WHEREAS, August 29, 2016, the City Council approved the Tier Two items for the Rio del Oro Specific Plan Project (RDOSP) including an Addendum to the previously approved Environmental Impact Report/Environmental Impact Statement, a Specific Plan Amendment to amend components of the previously approved Specific Plan, increasing the allowed development by 588 residential units; a Public Facilities Financing Plan; a Large Lot Tentative Subdivision Map; an Infrastructure Phasing Master Plan; Affordable Housing Plans; and Amended and Restated Development Agreements.; and

WHEREAS, the Public Facilities Finance Plan (Finance Plan) set forth a strategy to finance required Backbone Infrastructure and other Public Facilities serving the land uses in the RDOSP; and

WHEREAS, the Financing strategy is designed to assure the City that the required facilities will be constructed when needed and that the development within the RDOSP shall pay the full costs of infrastructure needed to serve the Plan Area, except where other funding sources are appropriate and available; and

WHEREAS, the RDOSP identifies ten (10) development phases that can be developed independently of each other comprised of the Elliott Homes portion in Phases 1 – 5 and the Easton Development Company portion in Phases A – E; and

WHEREAS, the Property Owner of the Elliott Homes, Inc. (EHI) portion of the RDOSP has engaged Economic & Planning Systems, Inc., to and prepare a report entitled "Rio Del Oro Specific Plan Implementation Plan – Elliott Homes, Inc." (the "EHI Implementation Plan"), attached as Exhibit A, which ensures that the required facilities will be constructed when needed and that the development within the Elliott Homes portion of the RDOSP shall pay the full costs of infrastructure needed to serve their portion of the Plan Area, except where other funding sources are appropriate and available; and

WHEREAS, as the property owner, EHI has elected not to implement a Special Financing District over their portion of the project to spread the costs of any improvements or facilities not otherwise covered by existing fee programs and instead, EHI has elected to use private or other financing to make up the difference between total costs of construction, including frontage lanes, and those costs covered by credits in existing programs; and

WHEREAS, the EHI Implementation Plan is applicable to the Elliott Homes, Inc. portion of the project, without the implementation of a Special Financing District, for use by staff to guide and require the construction of improvements in Phases 1 – 5 of the Plan Area; and

WHEREAS, public notice was provided as required by law and a public hearing was held on March 21, 2022, so that the City Council could consider all written and oral testimony prior to taking action on this matter;

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does hereby approve and adopt the Rio Del Oro Specific Plan, Implementation Plan for Elliott Homes, Inc.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

Rio Del Oro Specific Plan Implementation Plan— Elliott Homes, Inc.

The Economics of Land Use

Prepared for:
City of Rancho Cordova
Elliott Homes, Inc.

Prepared by:
Economic & Planning Systems, Inc. (EPS)

March 2022

EPS #202007

Economic & Planning Systems, Inc.
455 Capitol Mall, Suite 701
Sacramento, CA 95814
916 649 8010 tel
916 649 2070 fax

Oakland
Sacramento
Denver
Los Angeles

www.epsys.com

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1. Executive Summary

Overview

The Rio del Oro Specific Plan, defined in this report as "RDOSP" or "Project," is located on approximately 3,830 acres in the City of Rancho Cordova (City), south of U.S. Highway 50 and White Rock Road, north of Douglas Road, and east of Sunrise Boulevard. The Project, located generally west of Grant Line Road, is not demarcated by a roadway on its eastern boundary. **Map 1** shows the RDOSP in its regional context.

RDOSP land is owned by two developers: Elliott Homes, Inc. (EHI), and Easton Development Company, Inc. (EDC), collectively referred to as the Master Developers. The Project is envisioned to include a combination of residential, commercial, and park and open space land uses across the 3,830-acre site. The Project includes approximately 12,120 residential units spread over almost 1,950 gross developable acres, as well as almost 510 acres of commercial development, and nearly 1,400 acres of public and quasi-public land uses.[1] **Map 2** shows the proposed land use plan of the Project, and **Table 1** summarizes the buildout land use plan for the RDOSP.

RDOSP Implementation Plan Purpose

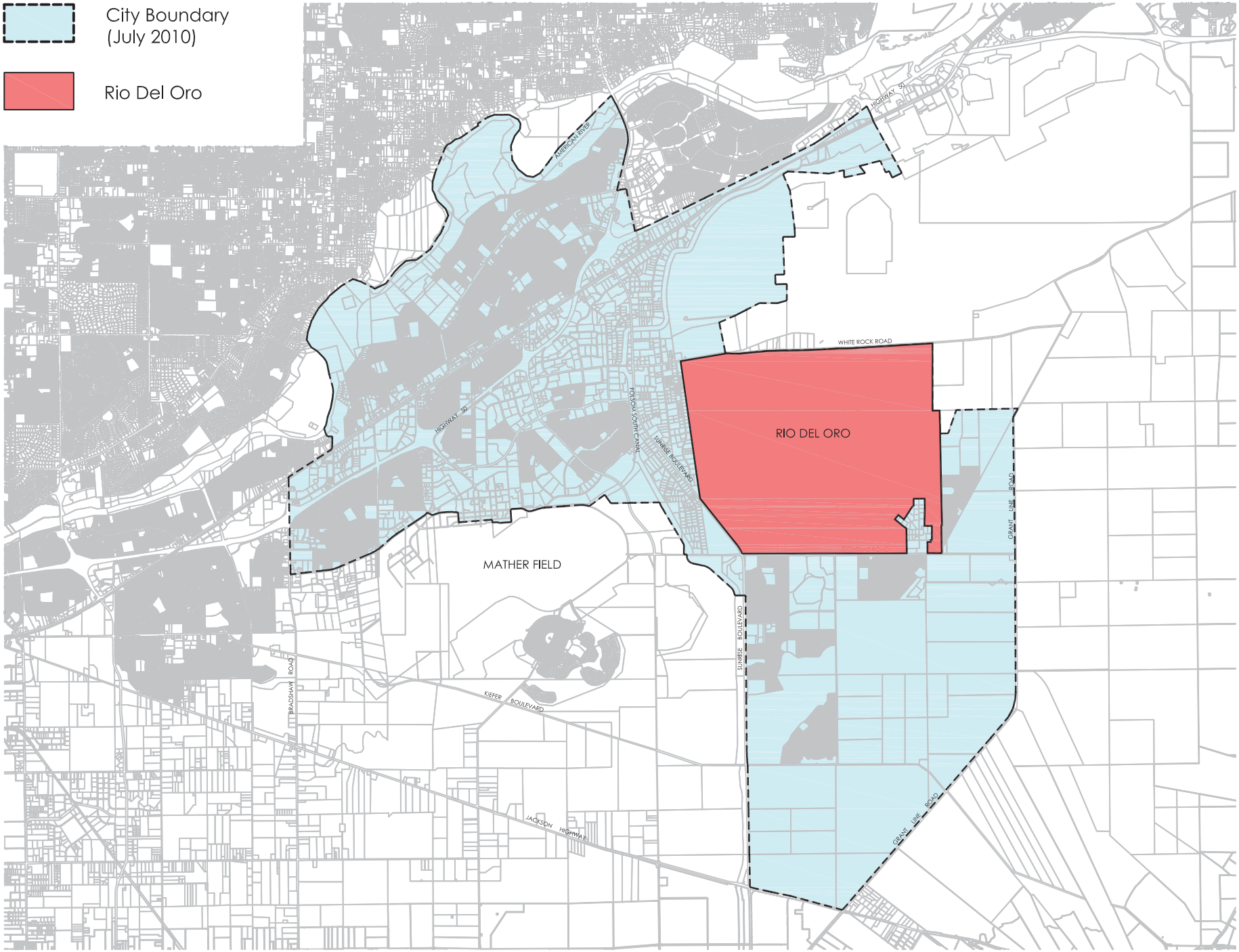
This RDOSP Implementation Plan (Implementation Plan) relates to the first RDOSP development being commenced by EHI. The City required EHI to prepare this Implementation Plan to guide development of EHI's portion of new development in the RDOSP.

The primary purpose of this Implementation Plan is to inform EHI, the City, and any subsequent developer in EHI's portion of the Project about all of the Backbone Infrastructure and Other Public Facility requirements for each development phase. The Implementation Plan also identifies all currently applicable development impact fees and costs and summarizes any cost-sharing arrangements that exist between EHI and EDC.

[1] The adopted RDOSP projected approximately 12,190 residential units and 520 acres of commercial development. The projections in this report reflect updated projections from Elliot Homes, current as of January 2022. Projections are rounded.

ATTACHMENT 2
Exhibit A to the Resolution

Map 1



LAND USE PLAN

RIO DEL ORO

LAND USE SUMMARY

LAND USE		ACRES	DENSITY RANGE	FIXED COUNT	UNITS	UNIT %	% OF RESIDENTIAL ACRES
SF	SINGLE FAMILY RESIDENTIAL	1,566.4	2.1 - 6.0	4.84 DU/AC	7,593	62%	40.9%
MD	MEDIUM DENSITY RESIDENTIAL	283.1	6.1 - 18.0	7.23 DU/AC	2,048	17%	7.4%
HD	HIGH DENSITY RESIDENTIAL	98.0	18.1 - 40.0	26.00 DU/AC	2,548	21%	2.6%
VC	VILLAGE COMMERCIAL	20.1					
LTC	LOCAL TOWN CENTER	24.3					
RTC	REGIONAL TOWN CENTER	112.9					
BP	BUSINESS PARK	90.4					
MP	INDUSTRIAL PARK	269.5					
P/QP	PUBLIC / QUASI PUBLIC	7.5					
FS	FIRE STATION	*					
AFS	ALTERNATIVE FIRE STATION	*					
MS/HS	SCHOOL CAMPUS	78.0					
MS	MIDDLE SCHOOL	20.0					
ES	ELEMENTARY SCHOOL	54.9					
CP	COMMUNITY PARK	121.5					
P	NEIGHBORHOOD PARKS	57.7					
SWD	STORM WATER DETENTION	38.7					
	WETLAND PRESERVE	510.0					
	DRAINAGE PARKWAY	141.9					
	PRIVATE RECREATION	52.5					
OS	OPEN SPACE	22.2					
OS/P	OPEN SPACE/ PRESERVE	12.0					
	LANDSCAPE CORRIDORS*	0.0					
GB	GREENBELTS	50.8					
	MAJOR ROADS	195.5					
TOTALS:		3,827.9			12,189	100%	

*LANDSCAPE CORRIDORS REMOVED FROM LAND USE SUMMARY, ACREAGE ASSIGNED TO ADJACENT PARCEL.

**UNDERLYING ZONING SHALL REMAIN.

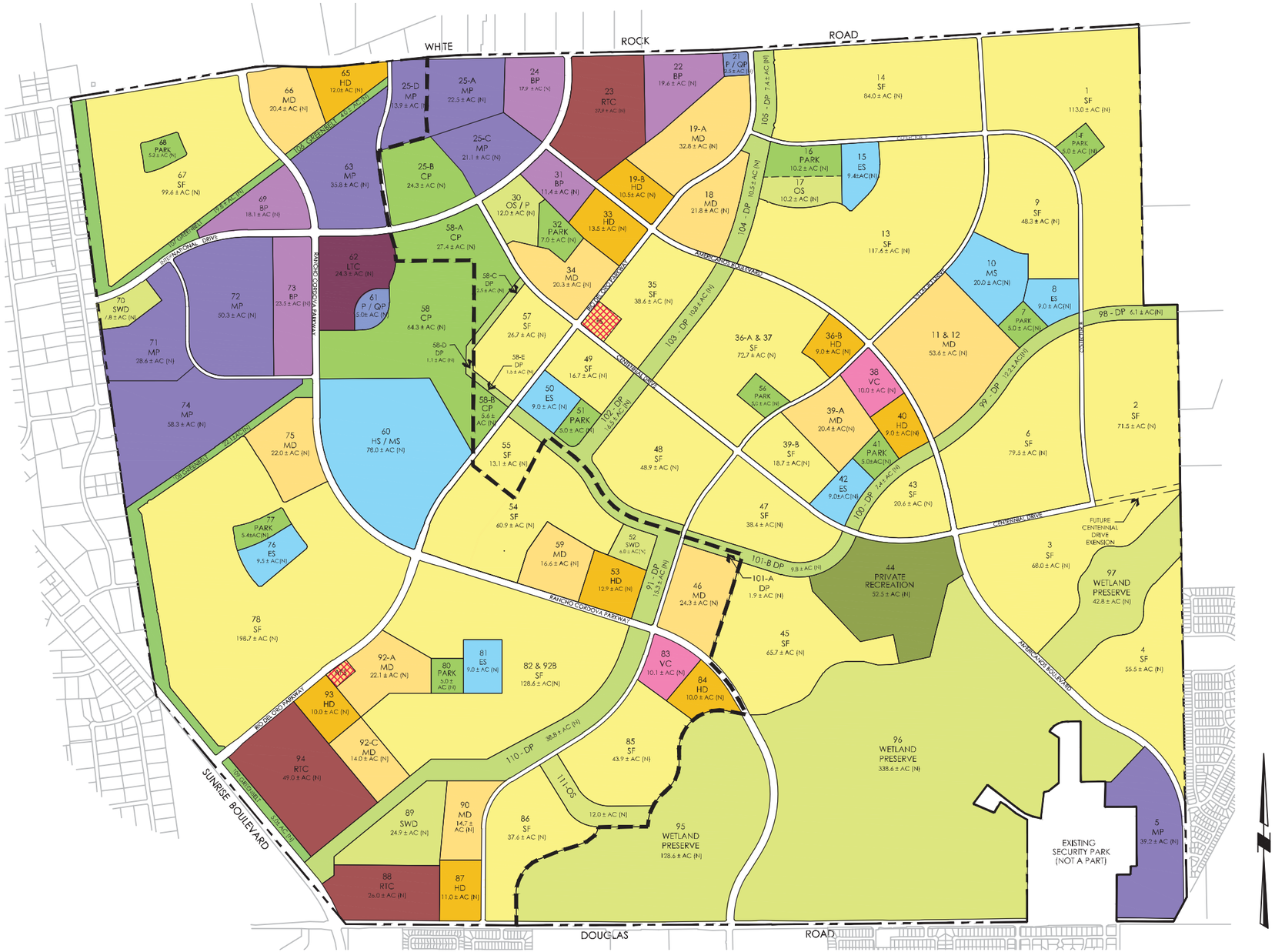


Exhibit 3-2
Land Use Plan

Table 1
Rio del Oro Specific Plan Financing Plan Implementation
Developable Land Use Summary by Phase

Land Use	Units per Acre/FAR	Elliott Homes [1] Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total	Easton Phase A	Phase B	Phase C	Phase D	Phase E	Total	TOTAL
							Dwelling Units							
Residential Uses	*units/acre*													
Single-Family	5.0	444	1,063	81	1,132	0	**2,720**	977	1,479	1,049	1,330	0	**4,835**	**7,555**
Medium-Density	8.0	132	159	368	296	0	**955**	158	536	384	0	0	**1,078**	**2,033**
High-Density	26.0	300	0	548	596	0	**1,444**	0	234	858	0	0	**1,092**	**2,536**
Subtotal Residential Uses		**876**	**1,222**	**997**	**2,024**	**0**	**5,119**	**1,135**	**2,249**	**2,291**	**1,330**	**0**	**7,005**	**12,124**
							Building Square Feet							
Nonresidential Uses	*FAR*													
Local Town Center	0.25	0	0	0	0	265,042	**265,042**	0	0	0	0	0	**0**	**265,042**
Regional Town Center	0.25	0	0	816,423	0	0	**816,423**	0	0	0	0	413,058	**413,058**	**1,229,481**
Village Commercial	0.25	0	0	0	109,526	0	**109,526**	0	109,009	0	0	0	**109,009**	**218,535**
Business Park	0.30	0	0	0	0	443,005	**443,005**	0	0	0	0	638,633	**638,633**	**1,081,638**
Industrial Park	0.40	0	0	0	0	3,214,728	**3,214,728**	0	0	0	682,672	758,989	**1,441,662**	**4,656,390**
Subtotal Nonresidential Uses		**0**	**0**	**816,423**	**109,526**	**3,922,775**	**4,848,725**	**0**	**109,009**	**0**	**682,672**	**1,810,680**	**2,602,362**	**7,451,086**
							Developable Acres							
Residential Uses														
Single-Family		98.9	219.3	16.8	233.7	0.0	**568.7**	201.6	304.4	216.6	274.5	0.0	**997.0**	**1,565.7**
Medium-Density		20.4	22.0	50.9	40.9	0.0	**134.1**	21.8	74.1	53.1	0.0	0.0	**149.0**	**283.1**
High-Density		12.0	0.0	21.1	22.9	0.0	**56.0**	0.0	9.0	33.0	0.0	0.0	**42.0**	**98.0**
Subtotal Residential Uses		**131.3**	**241.3**	**88.7**	**297.5**	**0.0**	**758.7**	**223.4**	**387.5**	**302.8**	**274.5**	**0.0**	**1,188.0**	**1,946.8**
Nonresidential Uses														
Local Town Center		0.0	0.0	0.0	0.0	24.3	**24.3**	0.0	0.0	0.0	0.0	0.0	**0.0**	**24.3**
Regional Town Center		0.0	0.0	75.0	0.0	0.0	**75.0**	0.0	0.0	0.0	0.0	37.9	**37.9**	**112.9**
Village Commercial		0.0	0.0	0.0	10.1	0.0	**10.1**	0.0	10.0	0.0	0.0	0.0	**10.0**	**20.1**
Business Park		0.0	0.0	0.0	0.0	33.9	**33.9**	0.0	0.0	0.0	0.0	48.9	**48.9**	**82.8**
Industrial Park		0.0	0.0	0.0	0.0	184.5	**184.5**	0.0	0.0	0.0	39.2	43.6	**82.7**	**267.2**
Subtotal Nonresidential Uses		**0.0**	**0.0**	**75.0**	**10.1**	**242.7**	**327.8**	**0.0**	**10.0**	**0.0**	**39.2**	**130.4**	**179.6**	**507.3**
Total Developable Acres		**131.3**	**241.3**	**163.6**	**307.5**	**242.7**	**1,086.5**	**223.4**	**397.5**	**302.8**	**313.6**	**130.4**	**1,367.6**	**2,454.1**

lu detail

Source: RDOSP and Wood Rodgers.

[1] Updates to Elliott Homes Phase 1 residential and Phase 5 nonresidential land uses current as of January 2022.

This Implementation Plan is based on prior entitlement work already completed, including the following documents:

- Tier 1 Entitlement and Development Agreement.
- Tier 2 Development Agreement.
- Project Public Facilities Financing Plan (Financing Plan), dated August 2016.
- Infrastructure Phasing Plan.
- Affordable Housing Plan.
- Project Conditions of Approval.
- Park Development Agreement between EHI and Cordova Recreation and Park District (CRPD).
- Cost Sharing and Reimbursement Agreement between EHI and Aerojet Rocketdyne Corporation (AR) and EDC, together referred to as AR/EDC.

Much of the detail in this Implementation Plan builds on the Financing Plan, which established the policy framework and technical information to support adoption of the recommended financing mechanism(s) for constructing Backbone Infrastructure and Public Facilities (as defined in **Chapter 4**) required to serve new RDOSP development. In this document, the term Improvements will also be used to describe the combination of Backbone Infrastructure and Public Facilities.

In coordination with the City and EHI, Economic & Planning Systems, Inc. (EPS) prepared this Implementation Plan. Wood Rodgers, Inc., prepared the engineering design and cost estimates, which are current as of January 2021. Fees applicable to Project development are current as of January 2021.

Project Land Uses and Phasing

Land Use Summary

The RDOSP includes approximately 12,124 residential units over almost 1,950 developable acres of land, and residential development is concentrated in the central portion of the Project. The Project's 1,950 developable residential acres include the following residential uses:

- More than 7,555 single-family units with a density ranging from 2 to 6 dwelling units per acre and an average density of 5 dwelling units per acre.
- Approximately 2,033 medium-density units envisioned to include a variety of attached and detached products at an average density of 8 dwelling units per acre.
- Approximately 2,536 high-density units at an average density of 26 dwelling units per acre.

As outlined in the Specific Plan document, of the total residential units, a portion of the high-density units will be made available at affordable levels. The City and RDOSP project owners will enter into an affordable housing agreement, establishing terms and requirements related to the provision of affordable housing.

The RDOSP also includes almost 510 acres of nonresidential development, which consists of retail, office, and industrial development, totaling approximately 7.5 million building square feet.

Approximately 160 acres of the RDOSP are designated as commercial development. This includes 20 acres of Village (neighborhood) commercial, 24 acres of Local Town Center (community) commercial, and 113 acres of Regional Town Center (regional) commercial development.

In the RDOSP, there are 83 acres of Business Park (office) development and 267 acres of Industrial Park (industrial) development. The majority of the office and industrial development is contained in the Employment Center in the northwest quadrant of the Project. The Employment Center is envisioned to support a large variety of uses, including large employment centers, light manufacturing, small professional offices and services, assembly, and other moderate to heavy industrial uses.

Phasing Plan

As described, the Financing Plan established the policy framework regarding Backbone Infrastructure and Public Facility requirements, as well as conceptual Project phasing and financing. The Specific Plan and **Appendix B** of this Implementation Plan include an Infrastructure Phasing Plan, which establishes the phasing plan for the major Improvements needed to serve the RDOSP. After initiation of the Project, development will respond to market conditions and will occur in multiple phases. The Infrastructure Phasing Plan includes 10 separate development phasing areas, all of which can be developed independently of each other and in any order. The Project phasing is divided between the Master Developers and is based on the logical placement of infrastructure, utilities, and roads.

Summary of Findings

1. ***New EHI development is governed by the Amended and Restated Development Agreement (ARDA) (recorded on June 10, 2020), and two separate amendments to the ARDA—Amendments No 1 and No. 2.***
2. ***Project backbone infrastructure and public facility construction requirements are identified in the ARDA (including all amendments thereto), the Financing Plan, and this Implementation Plan.***

   Appendix B illustrates the required EHI Backbone Infrastructure requirements by development phase in the EHI project. This Implementation

Plan includes estimated costs and potential fee program reimbursements/fee credits for those backbone infrastructure costs for EHI Phases 1 through 5.

3. ***City-implemented interim fees apply to the first 1,200 residential dwelling unit building permits.***

   Based on the terms of the ARDA, certain City-implemented development impact fees are subject to an initial incentive rate that applies only to the first 1,200 residential dwelling units. These Incentive Fees apply to any development in the Project regardless of ownership. A schedule of those fees is shown in **Table 6**. Separately, Amendment No. 1 to the ARDA applicable to EHI, included updated interim fees applicable only to EHI Phase 1 development. The interim fees applicable to EHI Phase 1 development are also illustrated in **Table 6**.

4. ***The City is constructing White Rock Road subject to the terms in the ARDA, and subsequent ARDA amendments.***

   Based on the terms of the ARDA and applicable amendments thereto, the City is taking lead construction responsibility for White Rock Road improvements generally from Luyung Drive to ½-mile east of Rancho Cordova Parkway. EHI has a cost-share obligation for certain portions of roadway and related drainage facility costs. The estimated costs of that arrangement are identified in this document.

5. ***EHI is not implementing a Plan Area Fee Program over their portion of the Project as outlined in the RDOSP Public Facilities Financing Plan.***

   Although the original Financing Plan assumed a Plan Area Fee Program would be implemented, EHI has decided not to form a Plan Area Fee. Instead, all required infrastructure that is not fully covered by an existing fee program will be privately financed or constructed directly by master developers.

6. ***Project backbone infrastructure obligations are not subject to cost-sharing agreements.***

   The estimated backbone infrastructure costs identified in this document are exclusive and apply only to EHI property, except where noted. For the most part, the Master Developers will construct the backbone infrastructure related to each of their own property holdings, with very little cost-sharing between them. As noted herein, there are limited exceptions to this arrangement, such as storm drainage infrastructure.

7. ***Project public facility obligations are not subject to cost-sharing agreements.***

   The estimated public facility costs identified in this document are exclusive and apply only to EHI property, except where noted. For the most part, the Master Developers will construct the public facilities related to each of their own property holdings, with very little cost-sharing between them. Relatedly, the Master Developers would be subject to all applicable City and other

agencies fees for public facility obligations. Again, there may be limited exceptions to this arrangement.

8. ***EHI park obligations are addressed in a Park Development Agreement between EHI and CRPD.***

   EHI obligations for park land dedication, rough grading, and park development for neighborhood park (at EHI's election) is documented in the Park Development Agreement executed between EHI and CRPD.

9. ***EHI environmental mitigation obligations are addressed in a cost-sharing agreement between EHI and AR/EDC.***

   EHI and AR/EDC have entered into a Cost Sharing and Reimbursement Agreement (Cost Sharing Agreement) related to environmental mitigation costs. This agreement is a private agreement between private parties and does not involve the City. A summary of this agreement is included in this Implementation Plan because the Project phases of development are contingent on compliance with required environmental mitigation.

10. ***EHI and AR/EDC drainage facility obligations are mutually exclusive, except for one drainage channel and outfall that may require cost-sharing arrangements.***

    The Project includes one large storm drainage channel and associated storm drainage basins located in EHI's Phase 3 and 4 that may be sized to accommodate drainage runoff from development in both EHI and AR/EDC properties. As such, when construction of those storm drainage channel and basin improvements are required by new EHI or AR/EDC development, the parties have mutually agreed to discuss potential cost-sharing arrangements for the storm drainage improvements. At this time, there are no binding agreements that require cost sharing for those storm drainage improvements, so they may or may not become shared costs in the future.

11. ***EHI, AR, EDC, and any subsequent developers or builders may cooperate on land-secured financing strategies; however, one large land-secured financing district including multiple property owners is not envisioned for the overall Specific Plan land uses.***

    Consistent with the overall strategy articulated in this document, the Master Developers may proceed with development at their own pace independently. Correspondingly, there are no current plans to form land-secured financing districts for infrastructure financing that include the Master Developers' projects within the same district. While areas of the Project may annex into one or more financing districts for ongoing services and maintenance obligations, those annexations will proceed independently.

2. Summary of Project Entitlements and Agreements

Policy Framework Overview

This chapter provides an overview of the RDOSP policy framework related to this Implementation Plan, including the following elements:

- Tier 1 and Tier 2 Entitlements.
- Phasing.
- Financing Plan Overview.
- Development Agreement and ARDA.
- ARDA Amendments.
- Park Development Agreement.
- Cost Sharing and Reimbursement Agreement.

The Project is being processed in two separate phases or "Tiers" of development approvals for the Master Developers. The Tier 1 Entitlements were approved by the City on September 7, 2010 and included a Tier 1 Development Agreement for the Master Developers, the Specific Plan document, and the Project Environmental Impact Report (EIR). The two Tier 1 Development Agreements are nearly identical, except that one applies to EHI's property and one applies to EDC's property.

The Tier 1 Development Agreements vest the RDOSP and committed the City to consider future approval of the land uses and other details in the Specific Plan document. In the Tier 1 Development Agreements, the City agreed the Specific Plan document essentially is the blueprint for development, and the City and developers will both work toward the development it describes.

The Specific Plan document established the land plan (zoning map) and zoning regulations for development in the approximately 3,830-acre Project area. The Specific Plan document includes information about Project objectives, relation to other City documents, setting and surroundings, land use and circulation, environmental resources, public utilities, public services, and implementation. The Specific Plan Appendix includes the Rio del Oro Development Standards and Design Guidelines and the On-Site Infrastructure Phasing Master Plan.

Both parties agreed that before any Tier 2 Entitlements are approved, including the Tier 2 Development Agreements, and before physical development would be allowed, all developers in the Project area would agree to the Financing Plan, Phasing Master Plan, Affordable Housing Plan, and overall Project conditions of approval.

Tier 1 and Tier 2 Entitlements

Development in the Project will be governed by a series of development entitlements between the City and the developers. A multiple-tier approach to entitlement execution establishes the conditions of and mitigation measures for Project development. Because the initial limited entitlement did not include overall Project conditions and financing, there were to be multiple phases (Tiers) of development entitlements as follows:

- **Tier 1 Entitlements (approved by the City on August 5, 2010).** The Tier 1 entitlement process included approval of the Specific Plan document, EIR, and a Tier 1 Development Agreement with identical terms for the Master Developers. The Tier 1 Development Agreement explained Tier 1 and Tier 2 processing in additional detail. The Tier 1 Development Agreements included as an exhibit the Large Lot Tentative Maps that serve as the basis for the land use plan described in the Specific Plan document. A corresponding amendment to the Aerojet Special Planning Area (SPA), which was previously approved by Sacramento County, was also approved by the City in 2010.
- **Tier 2 Entitlements.** The Tier 2 entitlement process was completed by the City and Master Developers between 2016 and 2020. The Financing Plan was approved concurrent with the Specific Plan document. Tier 2 entitlements included additional specific plan master planning, financing planning, and phasing planning for the Project. AR/EDC and EHI (or respective successors in interest, as provided for in the Tier 1 Development Agreements) each separately exercised their discretion to apply for a Tier 2 Development Agreement for its portion of the Specific Plan area at any time during the term of its Tier 1 Development Agreement.

Phasing

The Specific Plan document provides for a planned infrastructure system with coordinated phasing and construction of facilities. A total of 10 phases are proposed in the RDOSP. The On-Site Infrastructure Phasing Plan is provided in **Appendix B**, which includes a listing, by phase, of improvements and specific details relating to those improvements.

Infrastructure requirements for each phase of development include all on-site infrastructure necessary for each phase to proceed. The City approved a comprehensive Phasing Plan Master Plan as part of the Tier 2 Entitlement. The City will require, through map conditions, those off-site improvements necessary or beneficial in conjunction with a particular phase of development. Before approval of a small lot tentative map, the developer shall provide a phasing plan addressing sequencing and full buildout of all internal streets depicted on the tentative map. The phasing plan will also detail the timing of any required off-site infrastructure.

Financing Plan Summary

Purpose and Goals of the Financing Plan

The Financing Plan identified the plan to finance the Backbone Infrastructure and Public Facilities required to serve the RDOSP, subject to the terms and conditions of the Tier 2 entitlements, including the Tier 2 Development Agreements. The Financing Plan was prepared based on the following principles:

1. Establish the policy framework for financing the required Backbone Infrastructure and Public Facilities.
2. Specify the Backbone Infrastructure and Public Facilities to be constructed.
3. Identify the distribution of cost burdens to the different land uses in the RDOSP.
4. Identify funding sources to pay for the Backbone Infrastructure improvements and Public Facilities.
5. Describe fee programs and possible financing districts.
6. Describe funding sources and financing districts for ongoing operations and maintenance.

Please see **Appendix A** for more detail regarding the Financing Plan guiding principles as originally articulated in the Project Specific Plan document.

Development Agreement and ARDA

The City and property owners had originally entered into a Tier 1 Development Agreement (Tier 1 DA) for the Project. Among other obligations, that Tier 1 DA required the parties, before development in the Project, to prepare and execute a Tier 2 DA. As described below, the City and EHI executed an ARDA that satisfied the obligation for a Tier 2 DA.

In June 2020, the City and EHI entered into an ARDA that granted certain rights and sets forth certain obligations for each party relative to development and implementation of the Project. Only those provisions that relate to financial or infrastructure construction are summarized in this Implementation Plan.

Purpose of the ARDA

The following language, which describes the purpose of the ARDA, is excerpted from the ARDA:

> The City and Landowner desire to provide greater certainty and clarity to matters that are common, necessary and essential for the development of the Property in the Specific Plan Area (as defined herein [*in the ARDA*]), including but not limited to dedication of open space and land for public facilities, financing and construction of required infrastructure, as well as the contribution and reimbursement of the facilities' costs and services by and amongst Landowner and other landowners in the Specific Plan Area, and its successors-in-interest. Additionally, Landowner desires to proceed with development consistent with the Entitlements or any Subsequent Entitlements that may be included within the scope of this ARDA as those terms are defined herein. As contemplated and required by the Agreement, prior to any development being approved for or occurring within the Property (including any approval of Small Lot Tentative Subdivision Maps (as defined herein) or grading or construction of any improvements within or serving the Property), Landowner must obtain approval from the City of a Tier 2 Development Agreement (as defined in the Agreement). *This ARDA is intended to replace the Agreement, implement the requirements of the Entitlements and the Specific Plan EIR/EIS (as defined herein) as applied to development of the Property, and satisfy the condition for a Tier 2 Development Agreement prior to development of the Property. (emphasis added).*

As noted, the ARDA satisfied the prior Tier 1 DA condition that a Tier 2 DA be prepared such that the ARDA superseded and replaced the prior Tier 1 DA. Among other vested rights and obligations of the property owner, as well as of the City, the ARDA included certain "Incentive Fees" in its Section 5.7.1.

ARDA Section 5.7.1 created an incentive period, of up to 7 years from the ARDA effective date or the issuance of 1,200 residential building permits, in which certain fees, as identified in ARDA Exhibit E, would be in effect at lower-than-typical rates. During the incentive period, the incentive fees would also not be subject to inflationary adjustments. The incentive period and special rates applied to the following fees:

- Community Places Fee.
- Library Fee.
- Park Development Fee.

- Transportation Fee.
- Park Renovation Fee.
- Affordable Housing Fee.

As described in more detail below and later in this Implementation Plan, subsequent amendments to the ARDA have amended the rights, applicability, and adjustments to the "incentive period exactions" originally created in ARDA Section 5.7.1.

First Amendment of ARDA By and Between the City and Alta Vista, LLC, Relative to the Project

Amendment No. 1 to the ARDA, which was specifically identified as only applying to the subset of the EHI property identified as Phase 1 (approved November 2019, recorded April 2020), was established to achieve the following outcomes:

- Reduce certain nexus-based development impact fees on an interim basis (as adjusted over time).
- Confirm EHI obligation to dedicate park and community places lands.
- Specify EHI is required to pay the City's Park Development Fee, Community Places Fee, and City Community Renovation Fee (as adjusted over time).
- Reduce the required City Affordable Housing Fee to $3,700 per market-rate residential unit (as adjusted over time).
- Identify City and EHI construction and cost responsibility for White Rock Road improvements.

Second Amendment of ARDA By and Between the City and Alta Vista, LLC, Relative to the Project

Amendment No. 2 to the ARDA (September 2021) clarified the EHI property subject to the ARDA and specifically revised the respective obligations for drainage improvements along Sunrise Boulevard and White Rock Road. The EHI obligation for Sunrise Boulevard drainage improvements is $900,000, payable in multiple increments as triggered, and the White Rock Road roadway and signal improvement costs from Parkway to Collector A shall be reimbursed by EHI to the City in an amount equal to 122.5 percent of the reasonable hard construction costs for certain improvements as identified in the ARDA. Similar EHI reimbursement obligations for drainage improvements associated with that same roadway segment are to be reimbursed by EHI to the City.

Park Development Agreement between Cordova Recreation and Park District and Alta Vista, LLC

In autumn of 2021, EHI (under the entity name "Alta Vista, LLC") recorded a park development agreement (Park DA) between Alta Vista, LLC, and the Cordova Recreation and Park District (Park District) that established EHI's obligations for park land dedication, park construction, and payment of park development impact fees. The following sections summarize the Park DA terms applicable to the EHI project.

Park Land Dedication

The Park DA established the following park land dedications for the EHI project:

- Park land dedications shall be satisfied by dedication of lands identified in Exhibit 7-1 of the Specific Plan document.
- Park land dedications shall be satisfied on a specific plan areawide basis and not on a project-by-project basis.
- Developer (EHI) shall provide an Irrevocable Offer of Dedication for 3 neighborhood park sites depicted in the Park DA Exhibit 1, for a total of 15.5 acres of park land.
- Developer shall dedicate 64.3 acres of park land to the Park District for a portion of the Community Park site (depicted in Park DA Exhibit 1).

If, in the future, changes in land uses in the EHI project require additional park land as compared to what has been dedicated, any increase in park land dedication requirement may be satisfied by payment of an in-lieu fee to the Park District rather than through dedication of additional park land.

Park Development Impact Fees

The Park DA establishes the park development impact fee applicable to EHI Phase 1 and an "interim" incentive rate for the first 1,200 units in the entire Specific Plan area as follows:

- The Phase 1 park development fee shall be $9,781.36 per equivalent dwelling unit (EDU), with inflationary adjustments consistent with Section 5.7.1 of the ARDA.
- Except as described immediately above, the park development fee shall be $8,998 per EDU without inflationary adjustment, either until construction of 1,200 units in the entire Specific Plan area or until October 19, 2023, whichever occurs first.

- Park development fees should be allocated as follows: 33 percent for neighborhood parks component, 53 percent for community parks component, 11 percent for districtwide parks component, and 3 percent for administration component.
- The neighborhood parks component shall be used exclusively to provide credits to fund neighborhood parks construction and improvements.
- According to Section 2.3.1 of the PDA, the turnkey credit for neighborhood parks is based on the Neighborhood Park Fee Component equal to the construction cost per acre used to calculate the allocation set forth in Section 2.2, multiplied by the number of neighborhood park acres constructed. EHI's portion of the RDOSP contains 15.5 acres of neighborhood parks for a total neighborhood park budget in EHI's ownership of $7,924,605 or $511,265 per acre (2021$). The developer and CRPD will determine the actual budget for each neighborhood park at conceptual design phase to be flexible within 5 percent of the budget between the neighborhood parks, as long as the total amount expended for all neighborhood parks does not exceed $7,924,605.
- The community park and districtwide park fee components shall be used exclusively to fund community park construction and improvements.
- EHI (or successor in interest in Park DA) may obtain credits against the neighborhood park fee component if EHI (or subsequent developer) constructs neighborhood parks for dedication to the Park District. Terms of how such credits would be calculated are articulated in the Park DA.
- The Park DA also includes provisions for Park District construction of neighborhood parks in the event EHI (or its successor) does not elect to construct neighborhood parks on a turnkey basis.

Street Frontage, Rough Grading, and Schedule

The Park DA also includes the following conditions:

- EHI (or successor) is responsible for all costs associated with the design, engineering, fees, permits, and construction of street frontage improvements adjacent to neighborhood parks. Street frontage improvements are not eligible for park development impact fee credits.
- If EHI (or successor) elects not to construct neighborhood parks on a turnkey basis, neighborhood park rough grading shall be commenced before issuance of 51 percent of the certificates of occupancy in the applicable project phase that includes such neighborhood park.

- EHI (or successor) shall commence rough grading of the community park site in the following phases:
  - Community park phase 1 (approximately 20 acres) when construction of 30 percent of the planned units in EHI Phase 2 are completed.
  - Community park phase 2 (approximately 20 acres) when construction of 60 percent of the planned units in EHI Phase 2 are completed.
  - Community park phase 3 (approximately 20 acres) when construction of 90 percent of the planned units in EHI Phase 2 are completed.
- If necessary, either party to the agreement may postpone the rough grading requirements for neighborhood parks or the community park.

Other Park DA Provisions

The Park DA includes the following provisions, each of which are more fully described in the document:

- EHI (or successor) shall have full discretion to develop neighborhood parks on a turnkey basis.
- EHI (or successor) shall fully satisfy community park obligation by completion of rough grading, street frontage, and payment of the community park component of the park development impact fee.
- EHI (or successor) shall be required to annex the EHI project into the Park District's Mello-Roos Community Facilities District No. 2018-01 to fund EHI's share of park maintenance costs.

Cost Sharing and Reimbursement Agreement

Separate from agreements between EHI and public agencies or entities, EHI entered into a Cost Sharing Agreement with AR/EDC related to RDOSP combined environmental mitigation costs. This section briefly summarizes the main elements of that Cost Sharing Agreement.

Through the ARDA, Project conditions of approval, and conditions of other entitlements (i.e., environmental permits), EHI and AR/EDC collectively are responsible for certain "combined" environmental mitigation obligations and costs. Because the parties each have responsibility to ensure the required conditions are met, the parties entered into the Cost Sharing Agreement to specify obligations of the two parties relative to one another. The Cost Sharing Agreement sets forth land dedication and conservation easement requirements, as well as the ability for any aspect of the development project to move forward in any sequence regardless of a designated development "phase."

The agreement also includes certain reimbursement provisions meant as "mechanisms to achieve an ultimate fair share cost allocation for any monies advanced by either party that had to be advanced under the environmental mitigation requirements of the …. (environmental permits or ARDA)."

For clarity, the agreement identifies three categories of combined environmental mitigation costs into the following categories:

1. EHI-funded Phase 1 Mitigation Costs.
2. Future "shared" mitigation costs—with uncertain timing.
3. Non-shared future individual mitigation costs for which each party is individually responsible.

Exhibit C to the Cost Sharing Agreement sets forth the estimated "fair share" obligation for combined environmental mitigation obligations for each party. Below is a summary of the fair share items included in Exhibit C of the Cost Sharing Agreement.

EHI-Funded Phase 1 Mitigation

EHI funded the wetland preserve endowment for the 510-acre onsite wetland preserve (including the 12-acre onsite valley elderberry bush (VELB) preserve. EHI also purchased 7.24 vernal pool credits and 5.6 seasonal wetland credits from the Clay Station Conservation Bank for approximately $3,973,800. Finally, EHI funded a 160-acre offsite Cook Preserve Endowment for approximately $915,000. All together, the EHI-funded Phase 1 mitigation costs equal approximately $6.62 million.

The Cost Sharing Agreement establishes a 50/50 cost sharing arrangement for these costs and identifies the specific triggers applicable to actions by AR/EDC that would trigger repayment of their fair share of the EHI-funded Phase 1 mitigation costs.

Estimated Remaining Shared Mitigation Costs

Cost Sharing Agreement Exhibits B and C document approximately $2.2 million in additional future shared mitigation costs, for which the timing is uncertain and contingent on the timing of development in the Specific Plan area. If one party triggers the need for some or all of the costs within the $2.2 million, that party may elect to pay the full cost with the cost-sharing agreement, requiring the other party to fund their 50 percent fair share allocation.

Estimated Remaining Non-Shared Mitigation Costs

Cost Sharing Agreement Exhibits B and C also document additional "non-shared" mitigation requirements and costs related to subsequent wetland construction and ongoing endowment funding related thereto applicable to each party. The obligation to each party for their own wetland construction obligations in the 510-acre preserve is roughly estimated at approximately $0.5 million each but is subject to change. In addition, each party would separately be responsible for costs for ongoing monitoring and maintenance obligations, transplanting of elderberry shrubs, and the monitoring of such, as well as the cost to construct and maintain drainage corridors located on each party's respective property.

3. Project and EHI Land Uses

Project Land Uses

As shown in **Table 1**, the Project includes land uses under the Master Developers' ownership and in several phases for each. The following sections briefly describe the land uses in the Project. The Master Developers may proceed with development in that portion of the Project under their control without being dependent on the other.

EHI Land Uses

As shown in **Table 1**, the EHI land uses are divided into 5 distinct phases, identified as Phases 1 through 5. Phase 1 development has commenced, thereby driving the desire for this document. Phase 1 is composed of approximately 444 low-density single-family dwelling units, 132 medium-density single-family dwelling units, and approximately 300 high-density units, for a total of 876 dwelling units.

Overall, the EHI phases are entitled for up to 5,119 dwelling units, composed of 2,720 low-density single-family units, 955 medium-density single-family units, and 1,444 high-density residential units. In addition, Phases 1 through 5 are permitted for approximately 337.7 acres of nonresidential development with 99.3 acres designated as local and regional town center, 10.1 acres of village commercial, and another 228.3 acres divided between business park and industrial park.

Easton Development Land Uses

While not a part of this Implementation Plan, **Table 1** does include approximately 7,005 planned dwelling units and approximately 179.6 acres of nonresidential acreage planned for development.

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4. EHI Infrastructure Costs, Phasing, and Fee Burdens

Implementation Plan Infrastructure Definitions

The term "Backbone Infrastructure" often is used to describe all publicly owned facilities. Similar to the Financing Plan, this Implementation Plan uses the following definitions to more precisely define these items:

- **Backbone Infrastructure:** This term includes most of the essential public service-based items that are underground or on the surface. These items include storm drainage, water, reclaimed water, sewer, and arterial roads.[2] Backbone Infrastructure is sized to serve numerous individual development projects in the Project and in some cases serves the broader region's development areas.
- **Public Facilities:** This term includes these public facilities:
  - Quimby parks, community places, green infrastructure, and trails.
  - Transit.
  - Fire stations.
  - Libraries.
  - Other City Community Facilities.
  - Schools.

  This group of items provides amenities to the Project (e.g., park facilities and libraries) or houses employees providing services to the area (e.g., fire stations).

[2] Arterial roads are major 4-lane streets, typically on an 84' ROW with turning lanes.

- **Improvements:** This term is used generically in the Financing Plan to include a combination of Backbone Infrastructure and Public Facilities when a precise breakdown is not required.
- **Subdivision Infrastructure:** This group of improvements includes a subset of roadway improvements and in-tract improvements:
  - **Road Frontage on Backbone Infrastructure Roadways:** Road frontage improvements are defined as the outside traffic lane; curb, gutter, sidewalk, bike lane, required frontage landscaping, joint utilities trench, street lighting, and associated water, sewer, and drainage utilities. Road frontage is not generally considered Backbone Infrastructure, but this Financing Plan does identify the cost of road frontage for Backbone Infrastructure Roadways. This Implementation Plan identifies that private capital or other mechanisms will be used to fund these improvements, and installation of road frontage improvements will be the responsibility of adjacent development.
  - **Certain Collector Roads:** Collector roads are 2-lane roads carrying local traffic to or from arterials. Collector roads are not generally considered Backbone Infrastructure, but this Implementation Plan includes certain unnamed local collector roads that are wider than the typical cross section and are separated from adjacent development by soundwalls. Collector roads are not covered by the City traffic development impact fee (TDIF), and private capital or other mechanisms will be used to fund these improvements.
  - **In-Tract Improvements** include infrastructure and utilities (e.g., storm drainage, sewer, water, roads, soundwalls, and dry utilities) in an individual subdivision, commercial project, or multifamily project.

Items Excluded from the Implementation Plan

The following items are specifically excluded from the Implementation Plan:

1. The cost of In-Tract Improvements, which will be funded privately by developers.
2. The cost of right-of-way for roads, which will be dedicated, either as provided in the Development Agreement or on any Large Lot Final Map.
3. Other land dedication, right-of-way (excluding roads), and easement costs (e.g., park land dedication).

EHI Backbone Infrastructure Costs and Public Facility Requirements

Table 2 summarizes the estimated cost of Backbone Infrastructure and Public Facilities for EHI Phases 1 through 5 and in total. Backbone Infrastructure and Public Facilities for which EHI is anticipated to have a construction responsibility were provided by Wood Rodgers, Inc., and are from May 2020. Other Public Facility costs, where fee payment will satisfy EHI's obligations, are based on applicable fees current as of January 2022.[3] Costs for environmental mitigation reflect EHI's applicable share of costs based on the cost-sharing agreement between EHI and AR/EDC.

Backbone Infrastructure and Public Facility Cost Detail

Appendix C contains a summary of Backbone Infrastructure and Public Facility costs for the EHI development. Detailed cost estimates from Wood Rodgers, Inc., are included as **Appendix D**, along with exhibits depicting the segments and major increments of Backbone Infrastructure required to be completed. Developer obligations to construct required Backbone Infrastructure are triggered by conditions of approval on respective development entitlements, the DA, the Phasing Plan and this Implementation Plan.

White Rock Road Construction Costs and Obligations

Amendments No. 1 and No. 2 to the ARDA address the City's construction of certain White Rock Road improvements adjacent to the EHI property and cost obligations of the City and EHI related to those improvements. A summary of the estimated costs and cost sharing for the White Rock Road improvements is included as **Appendix F**. Overall, EHI's cost obligation to the White Rock Road improvements is approximately $1.9 million. The tables and information provided in **Appendix F** are for reference only and do not supersede the ARDA. In case of conflict, the ARDA governs.

Sunrise Road Drainage Costs

Amendment No. 2 to the ARDA also requires EHI to fund a portion of the cost of Sunrise Road drainage improvements. EHI's total obligation towards such drainage cost equals $900,000, payable in three separate increments of $300,000 each as certain subdivision and final small lot map recordation occurs, as more fully described in Amendment No. 2 to the ARDA. EHI has paid 2 of the 3 installments of $300,000 to the City as of adoption of this Implementation Plan and has 1 installment remaining to pay the City.

[3] These fee payments satisfy EHI's obligations only. EDC's obligation for improvements is not satisfied by this payment.

Table 2
Rio del Oro Specific Plan Financing Plan Implementation
Developer Constructed Backbone Infrastructure and Public Facilities Cost Summary (2021$) - Phase 1-5

Item	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total
Backbone Infrastructure						
Roadways [1]	$5,855,140	$16,778,380	$5,385,800	$23,077,180	$21,080,710	**$72,177,210**
Water	$488,568	$6,619,532	$338,846	$3,194,817	$1,212,362	**$11,854,125**
Drainage	$5,117,357	$14,500,354	$4,597,148	$5,601,079	$2,062,949	**$31,878,887**
Sewer						
Interim Facilities	$0	$4,333,500	$640,184	$0	$0	**$4,973,684**
Permanent Facilities	$1,361,100	$8,506,700	$964,184	$2,000,465	$8,025,774	**$20,858,222**
Subtotal Sewer	$1,361,100	$12,840,200	$1,604,367	$2,000,465	$8,025,774	**$25,831,906**
Subtotal Backbone Infrastructure	**$12,822,165**	**$50,738,466**	**$11,926,161**	**$33,873,541**	**$32,381,795**	**$141,742,128**
Public Facilities						
Quimby Parks	$1,178,100	$1,247,400	$0	$1,155,000	$14,853,300	**$18,433,800**
Community Places/Green Infrastructure [4]	$3,864,000	$1,835,998	$5,637,599	$6,528,297	$1,958,450	**$19,824,344**
Trails	$566,797	$300,300	$617,386	$730,191	$920,766	**$3,135,440**
Subtotal Public Facilities	**$5,608,897**	**$3,383,698**	**$6,254,985**	**$8,413,488**	**$17,732,516**	**$41,393,584**
Total Backbone Infrastructure & Public Facilities	**$18,431,062**	**$54,122,164**	**$18,181,146**	**$42,287,029**	**$50,114,311**	**$183,135,712**
Environmental Mitigation Costs [5]	$6,618,378	$375,000	$2,932,040	$151,750	$151,750	**$10,228,918**
TOTAL IMPROVEMENTS	**$25,049,440**	**$54,497,164**	**$21,113,186**	**$42,438,779**	**$50,266,061**	**$193,364,630**

cost_sum

Source: Wood Rodgers Cost Estimates provided February 2022. ECORP cost estimates provided February 2022.

[1] Includes backbone roadway improvements funded by the City TDIF. Includes only the inside (center) lanes (e.g., the inside four lanes on a six lane arterial road or the inside two lanes on a four lane arterial road) and medians.
[2] Includes on- and off-site backbone roadway frontage improvements not covered by the City TDIF. Americanos Boulevard wetland frontage includes the median section from Centennial Drive to Douglas Road, which is creditable against the City TDIF. Frontage costs also include outside lanes, curb, gutter, joint trench (dry utilities), sidewalk, and streetlight improvements.
[3] Includes unnamed local collector roads (travel lanes, curb, gutter, joint trench, sidewalk, and streetlight improvements) that are wider than the typical cross section and are separated from adjacent development by in-tract improvements. These collector roads are not covered by
[4] If the developer constructs any of the components of the Community Places fee, the developer would receive a fee credit against the Community Places fee. The PFFP anticipated significant costs of Green Infrastructure and Trails that are not covered by any fee program that would be in the Specific Plan Fee Program (see Tables G-1, G-4, and G-5 in the PFFP). Community Places may be creditable, but Green Infrastructure is a developer cost
[5] Includes the estimated endowment costs for the Wetland Preserve and Cook Property.
[6] Estimated by EPS.

Offsets to Fees and Reimbursement for Construction of Eligible Infrastructure

As shown and as described below, all or a portion of the estimated costs may be eligible for fee credits and reimbursements through applicable local agency development impact fee programs. Developers may be eligible to receive credits and reimbursements for certain developer-constructed improvements up to the maximum amount permitted via the applicable local agency's fee program policies. Any portion of cost not subject to credit or reimbursement shall be the developer's responsibility.

Costs in Excess of Public Agency Fee Credits/Reimbursements

The Improvements cost estimates are based on the estimated cost to construct the required Improvements regardless of how much a public agency may reimburse, either through fee credits, future cash reimbursements, or combination thereof. In addition, the Improvements cost estimates contain items that are not eligible for public agency fee program reimbursement. Hence, there is a difference between the estimated Improvements costs and that portion of the costs that may be reimbursed to the developer (e.g., through fee credits or cash reimbursement).

The tables in **Appendices C** and **D** illustrate the estimated total Improvements costs, how much of that cost may be subject to public agency reimbursement (labeled in the tables as "credits"), and the difference between those two. Each public agency has different rules governing the way in which they permit fee credits and reimbursements, so care should be taken when evaluating the estimated credits in **Appendices C** and **D**. One should not assume all potential public agency reimbursement may take the form of fee credits.

Shared Costs or Costs Subject to Cost-Sharing/Reimbursement

Known Shared Costs

As described earlier, there are approximately $2.2 million in future wetland mitigation costs that will be shared 50/50 between EHI and AR/EDC pursuant to the terms of the Cost Sharing Agreement. If one party elects to fund all or a portion of these costs, that party would be entitled to reimbursement from the other party for one half of the costs.

Potential Future Shared Costs

Most of the storm drainage infrastructure in the Specific Plan area serves adjacent development areas, and the improvements are mutually exclusive between EHI and AR/EDC. However, there is one large storm drainage channel and an associated storm drainage basin located in EHI's Phase 3 and 4 that may be sized to accommodate drainage runoff from development in both EHI and a portion of AR/EDC properties. As such, when construction of those storm drainage channel

and basin improvements are required by new EHI or AR/EDC development, the parties have mutually agreed to discuss potential cost-sharing arrangements for the storm drainage improvements. At this time, there are no binding agreements that require cost sharing for those storm drainage improvements, so they may or may not become shared costs in the future.

Infrastructure and Public Facility Phasing

Infrastructure and public facility phasing and requirements for the EHI property are governed by the following documents:

- Financing Plan.
- Infrastructure Phasing Master Plan (in Financing Plan).
- ARDA.
- Park DA.
- Cost Sharing Agreement.
- Small Lot Tentative Map Conditions of Approval.
- Implementation Plan (this document).

The exhibits in **Appendix B** and the cost estimates in **Appendix D** depict and quantify the infrastructure and public facility phasing obligations for the EHI project. The following text from the Rio Del Oro Financing Plan Phasing Plan Master Plan (Phasing Plan Master Plan), which was appended to the Financing Plan, describes the overall approach to infrastructure and development phasing for the Specific Plan area.

Phasing Plan Overview

The Specific Plan document provides for a comprehensively planned infrastructure system with coordinated phasing and construction of facilities. A total of 10 phases are proposed in the Specific Plan area. The EHI portion of the Project consists of Phases 1 through 5. The AR/EDC portion of the Project consists of Phases A through E and the Wetland Preserve (WP). Additional sub-phases are anticipated to occur in the Plan Area as individual tentative maps are approved.

The Plan Area is bordered by existing development on the west and portions of the south and east. The phases will generally develop from west to east and north to south. The Specific Plan document's Section 4 (Circulation) and Section 6 (Public Utilities) describe the overall public facilities required to serve the Plan Area. The following section provides a detailed listing of the infrastructure requirements to be constructed by phase in the Plan Area. Infrastructure in each phase and off site may be phased or partially constructed based on the "Phased Performance Standards" described below. Exhibit B-1 identifies the geographic boundaries of each phase with land use by phase.

The Phase numbering and lettering is intended to demonstrate a high-level path to completion of infrastructure for the entire Specific Plan area. It is highly unlikely that the Project will develop in phase order. Numbers 1 through 5 and letters A through E are put in order based on a best understanding of anticipated economic drivers (infrastructure cost) and market demand conditions and the need for new homes and businesses. Each phase may be developed independent to any other phase. It is anticipated that several phases will be under construction at any given time, and the plan allows each phase to develop independently from other phases.

This on-site phasing plan is intended to provide a platform for agreements that will be developed in the Small Lot Tentative Map Phasing plans that will ultimately guide infrastructure construction in the Specific Plan area. The following performance standards and individual phase descriptions and maps provide a basis for future development. This plan is not intended to condition the order of development and does not specify the magnitude of infrastructure requirements for individual small lot tentative map phasing plans. The plan is only intended to provide a platform for the development of Small Lot Tentative Map Phasing plans where detailed infrastructure phasing conditions will be developed.

Phasing Performance Standards

The following phasing performance standards come directly from the Phasing Plan Master Plan, which was appended to the Financing Plan. As shown, the phasing performance standards inform property owners and City staff as to the criteria that will be considered when conditions of approval are constructed for each small lot tentative subdivision map.

Phasing and additional sub-phases will be permitted based on following performance standards.

- Two points of roadway access will be required for any development phase.
- A looped water system will be required for any development phase.
- Interim sewer and drainage facilities may be constructed consistent with the standards of the appropriate agencies.
- Arterial traffic signals identified in the RDO Specific Plan will be constructed when traffic demand/LOS and/or safety concerns require the Intersection be signalized at the discretion of the City Engineer. If any tentative lot phasing plan builds only 2 legs of a future arterial/arterial roadway intersection, signal construction will be delayed until additional approaches are built.
- The timing of other traffic signals identified in the RDO Specific Plan will be identified in Small Lot Tentative Map Phasing plans. Additional signals may also be considered at that time.

- Arterial roadways may be phased based on providing traffic lanes sufficient to provide adequate Level of Service (LOS) consistent with the City of Rancho Cordova standards and policies. Level of service widening from 2 to 4 lanes will be based on internal arterial roadways exceeding 15,300 ADT (LOS D). A traffic study can be provided to demonstrate that the widening is needed for development outside of the Rio Del Oro plan area.
- Arterial roadway phasing will consider whether it is feasible to provide complete streets, including vehicular, bicycle, pedestrian circulation and landscaping factors for consideration include:
  - Limiting the expense of construction of offsite facilities.
  - Limiting exposure to reconstruction of facilities due to development on opposite sides of arterial roadways adjacent to undeveloped lands, limiting the expense of construction of offside frontage.
  - Financial feasibility to provide complete streets.
  - Priority to provide circulation for all modes along arterial corridors, phased arterial cross section elements should be continuous within each of the 10 phases identified within this plan.
  - Parcel by parcel changes in cross section elements will not be permitted.
- Typical cross-sections have been developed for arterial roadway phasing options for 4-lane arterials, Exhibit B-12 and 6-lane arterials, Exhibit B-13.
- Grade separated trail crossings are identified as constructed within each plan phase where the crossing is located. The actual timing of these crossings will be based on the development of the trail system. Conditional timing for trail crossings will be identified in the Small Lot Tentative Map Phasing Plans. EHI assumes that grade-separated pedestrian crossings for the trails are part of the City CIP, and construction of these crossings is not the responsibility of EHI.
- In some instances, out of phase trails may be requested to provide logical trail connections and completeness. There will be a focus on getting residents connected to schools.
- Timing for infrastructure improvements identified in this Phasing Plan will be superseded by timing requirements identified in project conditions of approval.

Minor deviations from the Infrastructure Phasing Plan may be administratively approved by the Public Works Director.

Phase 1 Example

Appendix E includes several exhibits that depict the level of detail and type of infrastructure phasing that will accompany each tentative subdivision map. As shown, the exhibits include the subdivision lotting, applicable cross-sections for roadways, greenbelts, drainage corridors, etc., as well as the infrastructure phasing for the tentative map area. In this Phase 1 example, the infrastructure requirements are also depicted by subphase.

Funding Sources

Several different funding sources will be used to fund Backbone Infrastructure and Public Facilities required to serve the Project. Initially, the developer will be required to fund and construct many of the required Improvements with private funding until public funding becomes available. Public funding sources primarily will be used to credit the developer for the advanced funding of Improvements and to ensure development that occurs at a later time ultimately pays its proportionate share for the required Improvements.

Existing and Potential Fee Programs

The City, Sacramento County, and Other Agencies serving the RDOSP have established development impact fee programs to fund regional costs for storm drainage, sewer, water, roads, and other capital facilities.

Existing City, Sacramento County, and Other Agency fee programs that will fund a portion of RDOSP infrastructure and public facility obligations include the following programs:

- Sacramento County Water Agency (SCWA) Zone 11A (Storm Drainage) or the Storm Drain Impact Fee when adopted by the City.
- Sacramento Regional County Sanitation District (Regional San) (Sewer, regional conveyance).
- Sacramento Area Sewer District (SASD) (Sewer, local collection).
- Sacramento Transportation Authority (STA) Sacramento County Transportation Mitigation Fee Program (SCTMFP) Measure A fee.
- Sacramento County (Transit).
- SCWA Zone 40 (Water).
- Sacramento Metropolitan Fire District (SMFD) (Fire Facilities).

- Rancho Cordova Citywide Transportation Development Impact Fee (TDIF) (Roads and Transit).[4]
- Rancho Cordova Community Facilities Fee (CFF) Program (Library and Other City Community Facilities).
- Rancho Cordova Park Renovation Fee (Park Renovations).

Other potential fees that are expected to apply to RDOSP development but that have not yet been adopted include the following programs:

- Citywide Park or Cordova Recreation and Park District (CRPD) Fee Program.
- Rancho Cordova Community Places Fee.
- Proposed Capital Southeast Connector Project Financing Program.

The existing and potential fees listed above will be paid at various entitlement stages.[5] Many of the RDOSP Improvements are included in the capital improvement programs (CIPs) of these existing and potential fee programs. In those cases, developers who build eligible Improvements would receive a credit or reimbursement from the fee program based on such credit and reimbursement policies in place at the time these improvements are completed.

Private Financing

The City will condition private developers to construct facilities needed to serve development through the subdivision map process. Commercial and multifamily projects will be conditioned through the subdivision map process, the conditional use permit process, or the design review process.

[4] Pursuant to the provisions of the Public Facilities Finance Plan, adopted with the RDOSP document and the Development Agreements applicable to all properties in the RDOSP, a set-aside of the Transportation Development Impact Fee (TDIF) was established at $9,000 in 2015 as a dedicated funding source to fund certain core backbone roadways. As of January 1, 2022, the set-aside amount has inflated to $10,751.24 per single-family dwelling, which amount shall be collected at building permit and not be available to be applied as credits at building permit. The creditable amount available to be applied at building permit in any given year shall be the difference between the current transportation impact fee minus the current set-aside.

[5] The City Storm Drain Impact fee will be paid at the time Improvement plans are submitted to and approved by the City. SASD fees will be paid at the final map approval stage for single-family subdivisions and at the building permit stage for multifamily and commercial properties. SCWA Zone 40 single-family water fees will be paid in two increments: 15 percent before approval of an improvement plan, and the remaining balance before the issuance of a building permit or connection to a water distribution system supplied by wholesale water from SCWA. Multifamily, open space, park, and public school water fees are paid before the approval of an improvement plan. Commercial water fees will be paid in two increments: a per-acre fee at the time improvement plans are submitted to and approved by the City, and per DUE at the building permit stage. All other fees described above will be paid at building permit.

Because of the scale of Backbone Infrastructure improvements required, private capital initially may be a primary source of funding. To the extent fee revenues are available, the developers will receive fee credits or reimbursements for advance funding eligible projects included in fee programs, based on the City's, Sacramento County's, and Other Agencies' reimbursement policies.

Land-Secured Financing

Maintenance Districts

New development in the Project, including the EHI project, will be required to annex into several existing CFDs for ongoing services and maintenance costs. New development will be required to annex into the following CFDs:

- City CFD No. 2013-2 (Police Services).
- City CFD No. 2014-2 (Streets, Lighting and Landscape Maintenance).
- City CFD No. 2018-2 (Community Places and Neighborhood Greens).
- CRPD CFD No. 2018-01 (Park Maintenance).
- Transit-related services tax.
- Sacramento Area Flood Control Agency assessment.
- Water and Drainage Studies—SCWA 13.
- City of Rancho Cordova Stormwater Utility Fee Area

Infrastructure District Options

At their discretion, EHI may wish to form one or more land-secured financing districts to fund eligible Backbone Infrastructure and Public Facilities or to pay eligible development impact fees. Again, at EHI's discretion, the infrastructure financing district(s) may be formed directly through the City or may be formed through one of the statewide municipal finance authorities: either the California Statewide Communities Development Authority (CSCDA) Statewide Community Infrastructure Program (SCIP) or the California Municipal Finance Authority (CMFA) Bond Opportunities for Land Development (BOLD) Program.

Regardless under which authority the infrastructure financing district is formed, it is likely EHI would establish such district(s) consistent with the City's goals and policies for land-secured financing.

Whether EHI elects to form one or more infrastructure financing districts on the EHI project will not have any impact on AR/EDC's ability to form infrastructure financing districts on their portion of the Specific Plan area.

School Facility Funding

Funding for school facilities to serve the Project will be accomplished through the following mechanisms:

- School development impact fees controlled by State law (Government Code §65995 et seq.).
- Folsom-Cordova Unified School District (FCUSD) School Facilities Improvement District No. 1 (SFID 1).
- FCUSD School Facilities Improvement District No. 3 (SFID 3).
- The State School Facilities Program.

Summary of Funding Sources for Development of the RDOSP

As shown in **Table 3**, total backbone infrastructure and public facilities costs at Project buildout equal approximately $183.1 million (2021$). Including approximately $10.2 million in environmental mitigation costs, total improvement costs at Project buildout total approximately $193.4 million.[6] Of these costs, $105.5 million is expected to be funded by private/other financing, and $87.9 million is expected to be funded by existing and proposed City, Sacramento County, and Other Agency fee programs.

Fees and Costs for EHI Development

The following section summarizes the estimated development impact fees and costs applicable to new EHI development. The fees and costs are shown for both a typical low-density single-family residential unit, as well as a medium-density single-family unit. Fees for high-density residential would vary from those shown for either of these two categories. As noted above, and as shown in **Tables 4** and **5**, new EHI development will be subject to several City and Other Agency fees. The amounts shown in these tables are the gross fee amounts before any adjustments for fee credits may be applied.

Phase 1 Development Fees and Costs

The ARDA created a subset of adjusted fees that are defined as the “Incentive Fees.” The ARDA provided that these Incentive Fees would apply until construction of 1,200 units in the entire Specific Plan area or until October 19, 2023, whichever occurs first. In the original ARDA, these Incentive Fees were not subject to any annual escalation.

[6] Due to rounding, some totals may not correspond with the sum of the separate figures.

Table 3
Rio del Oro Specific Plan Financing Plan Implementation
Sources and Uses of Funds - Phase 1-5 (2021$)

RDOSP Phase 1-5

Improvement	Estimated Improvement Costs	Proposed Funding Sources: Existing City, County, Other Fee/Funding Programs: City Fees: TDIF Funding	Drainage Fee	Park Development Fee	Community Places Fee	Other Agency Funding	Total Developer Funding	Developer Funded: Elliott	Easton	Total Funding
						[1]		[10]	[11]	
DEVELOPER CONSTRUCTED IMPROVEMENTS										
Backbone Infrastructure										
Roadways	$72,177,210	$27,106,660	-	-			$45,070,550	$45,070,550	-	$72,177,210
Water	$11,854,125	-	-	-	-	$11,854,125 [2]	-	-	-	$11,854,125
Drainage	$31,878,887	-	$23,095,973	-	-		$8,782,914	$8,782,914	*t.b.d.*	$31,878,887
Sewer	$25,831,906	-	-	-	-	$25,831,906 [3]	-	-	-	$25,831,906
Subtotal Backbone Infrastructure	**$141,742,128**	**$27,106,660**	**$23,095,973**	**$0**	**$0**	**$37,686,031**	**$53,853,464**	**$53,853,464**	**$0**	**$141,742,128**
Public Facilities										
Quimby Parks [6]	$18,433,800	-	-	-		-	$18,433,800	$18,433,800	-	$18,433,800
Community Places/Green Infrastructure [6] [7]	$19,824,344	-	-	-	-	-	$19,824,344	$19,824,344	-	$19,824,344
Trails	$3,135,440	-	-	-	-	-	$3,135,440	$3,135,440	-	$3,135,440
Subtotal Public Facilities	**$41,393,584**	**$0**	**$0**	**$0**	**$0**	**$0**	**$41,393,584**	**$41,393,584**	**$0**	**$41,393,584**
Total Backbone Infrastructure & Public Facilities	**$183,135,712**	**$0**	**$23,095,973**	**$0**	**$0**	**$37,686,031**	**$50,176,498**	**$50,176,498**	**$0**	**$110,958,502**
Environmental Mitigation Costs [9]	**$10,228,918**	$0	$0	$0	$0	$0	$10,228,918	*Relative obligation between parties is t.b.d.*		$10,228,918
TOTAL DEVELOPER CONSTRUCTED IMPROVEMENTS	**$193,364,630**	**$27,106,660**	**$23,095,973**	**$0**	**$0**	**$37,686,031**	**$105,475,966**	**$95,247,048**	**$0**	**$193,364,630**

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Source: Wood Rodgers Cost Estimates provided February 2022. ECORP cost estimates provided February 2022.

[1] The sources of Other Agency Fee funding include:
[2] Sacramento County Zone 40.
[3] SASD.
[4] Folsom Cordova USD.
[5] Sacramento Metro Fire Department.
[6] Assumes cost is equal to fee revenue generated by Rio Del Oro development.
[7] If the developer constructs any of the components of the Community Places fee, the developer would receive a fee credit against the Community Places fee. The PFFP anticipated significant costs of Green Infrastructure and Trails that are not covered by any fee program that would be in the Specific Plan Fee Program (see Tables G-1, G-4, and G-5 in the PFFP). Community Places may be creditable, but Green Infrastructure is a developer cost
[8] Facilities funded by CFF revenue include city hall, police facilities, community center, corporation yard, museum, parking structure, and administration (3.75%).
[9] Includes the estimated endowment costs for the wetland preserve and Cook property.
[10] Financing mechanism for remaining Rio Del Oro infrastructure costs has not been determined at this time. Special Financing District may be private developer capital, Mello-Roos Community Facilities District, Plan Area Fee Program, Benefit Assessment District, or other Infrastructure charge.
[11] Private/other funding may include private developer capital, Mello-Roos Community Facilities District, Benefit Assessment District, or other Infrastructure charge.

Table 4
Rio del Oro Specific Plan Financing Plan Implementation
Single-Family Impact and Processing Fees

Item	Fee per Unit	Agency
Current as of	*Feb-22*	
CITY/COUNTY/SPECIAL DISTRICT FEES PER UNIT [1]		
Processing Fees per Unit [2]		
Building Permit [3]	$1,969	City
Plan Check [3]	$1,313	City
C&D Ordinance Fee	$122	City
Zone Check Fee	$171	City
General Plan Cost Recovery	$210	City
Building Compliance Inspection Fee	-	City
California Building Standards Commission (CBSC) Fee	$13	City
Strong Motion Instrumentation Fee	$41	City
Sacramento Metro Fire District Plan Review Fee	$629	Special District
Subtotal Processing Fees per Unit	**$4,467**	
Development Impact Fees per Unit		
Sacramento Area Sewer District (SASD) Sewer Impact Fee (Expansion) [4]	$2,586	Special District
Regional SAN Impact Fee (New Areas)	$6,479	Special District
Zone 40 Water Development Fee	$17,985	County
Zone 40 Water Meter New Service Processing Fee	$376	County
Storm Drainage Fee	$2,551	City
Sacramento County Transportation Mitigation Fee (Measure A)	$1,351	County
Transportation Impact Fee [5] [6]	$18,267	City
Affordable Housing Fee [5]	$4,270	City
Community Facilities Fee - Community Facilities [5]	$3,582	City
Community Facilities Fee - Library [5]	$637	City
Community Places Fee [5]	$1,488	City
Park Renovation Fee [5]	$778	City
Park Development Fee [7]	$6,137	City
Sacramento Regional Transit Fee	$175	Special District
Sacramento Metropolitan Fire District Facilities Fee	$1,477	Special District
Subtotal Development Impact Fees per Unit	**$68,139**	
TOTAL CITY/COUNTY/SPECIAL DISTRICT FEES PER UNIT	**$72,606**	
School District	*Folsom Cordova USD*	
Estimated School Mitigation per Unit		
A. Annual School Mello-Roos CFD Tax	-	
B. Present Value of School CFD Tax	-	
C. School Fee per Sq. Ft.	$6.33	-
D. Total School Fee per Unit	$15,192	School District
E. Total School Mitigation (B+D)	**$15,192**	
TOTAL FEES (PROCESSING/IMPACT/SCHOOL DISTRICT) PER UNIT	**$87,798**	

sfr fees

Source: City of Rancho Cordova; various agencies; EPS.

[1] Based on a single-family residence of 2,400 square feet (SF) on a 5,500 SF lot at a density of 5.50 units per net acre with a construction permit valuation of $318,788.
[2] Processing fees exclude mechanical, electrical, plumbing and other similar review fees.
[3] Total permit fee is $1,750 plus 0.007 * valuation exceeding $100,000.
[4] SASD Fee is calculated at $20,484 per acre, applied only to the residential lot area.
[5] Reflects Incentive Fees from the First Amendment to the Development Agreement. See Table 6 for
[6] Pursuant to the provisions of the PFFP adopted with the RDOSP and the Development Agreements applicable to all properties in the RDOSP, a set-aside of the Transportation Development Impact Fee (TDIF) was established in 2015 as a dedicated funding source to fund certain core backbone roadways. The creditable amount available to be applied at building permit in any given year shall be the difference between the current transportation impact fee minus the current set-aside.
[7] Park Development Fee reflects elimination of the neighborhood park component because neighborhood parks are being developer constructed in lieu of that portion of the fee.

Table 5
Rio del Oro Specific Plan Financing Plan Implementation
Medium-Density Residential Impact and Processing Fees

Item	Fee per Unit	Agency
Current as of	*Jan-22*	
CITY/COUNTY/SPECIAL DISTRICT FEES PER UNIT [1]		
Processing Fees per Unit [2]		
Building Permit [3]	$1,609	City
Plan Check [3]	$1,073	City
C&D Ordinance Fee	$100	City
Zone Check Fee	$139	City
General Plan Cost Recovery	$153	City
Building Compliance Inspection Fee	-	City
California Building Standards Commission (CBSC) Fee	$9	City
Strong Motion Instrumentation Fee	$30	City
Sacramento Metro Fire Department Plan Review Fee	$524	Special District
Subtotal Processing Fees per Unit	**$3,638**	
Development Impact Fees per Unit		
Sacramento Area Sewer District (SASD) Sewer Impact Fee (Expansion) [4]	$1,348	Special District
Regional SAN Impact Fee (New Areas)	$6,479	Special District
Zone 40 Water Development Fee	$17,985	County
Zone 40 Water Meter New Service Processing Fee	$376	County
Storm Drainage Fee	$1,615	City
Sacramento County Transportation Mitigation Fee (Measure A)	$1,351	County
Transportation Impact Fee [5] [6]	$18,267	City
Affordable Housing Fee [5]	$4,270	City
Community Facilities Fee - Community Facilities [5]	$3,582	City
Community Facilities Fee - Library [5]	$637	City
Community Places Fee [5]	$1,488	City
Park Renovation Fee [5]	$778	City
Park Development Fee [7]	$6,137	City
Sacramento Regional Transit Fee	$175	Special District
Sacramento Metropolitan Fire District Facilities Fee	$1,477	Special District
Subtotal Development Impact Fees per Unit	**$65,965**	
TOTAL CITY/COUNTY/SPECIAL DISTRICT FEES PER UNIT	**$69,603**	
School District	*Folsom-Cordova USD*	
Estimated School Mitigation per Unit		
A. Annual School Mello-Roos CFD Tax	-	
B. Present Value of School CFD Tax	-	
C. School Fee per Sq. Ft.	$6.33	
D. Total School Fee per Unit	$10,761	School District
E. Total School Mitigation (B+D)	**$10,761**	
TOTAL FEES (PROCESSING/IMPACT/SCHOOL DISTRICT) PER UNIT	**$80,364**	

mdr fees

Source: City of Rancho Cordova; various agencies; EPS.

[1] Based on a 1,700 square-foot single-family unit with 15.2 units per acre, 2,872 square feet of lot area per unit, and a construction permit valuation of $233,143.
[2] Processing fees exclude mechanical, electrical, plumbing and other similar review fees.
[3] Total permit fee is $1,750 plus 0.007 * valuation exceeding $100,000.
[4] SASD Fee is calculated at $20,484 per acre, applied only to the residential lot area.
[5] Reflects Incentive Fees from the First Amendment to the Development Agreement. See Table 6 for further details.
[6] Pursuant to the provisions of the PFFP adopted with the RDOSP and the Development Agreements applicable to all properties in the RDOSP, a set-aside of the Transportation Development Impact Fee (TDIF) was established in 2015 as a dedicated funding source to fund certain core backbone roadways. The creditable amount available to be applied at building permit in any given year shall be the difference between the current transportation impact fee minus the current set-aside.
[7] Park Development Fee reflects elimination of the neighborhood park component because neighborhood parks are being developer constructed in lieu of that portion of the fee.

Amendment No. 1 to the ARDA

Amendment No. 1 to the ARDA amended the Incentive Fees applicable specifically to EHI Phase 1 development and reinstated an annual escalation factor to be applied to the Incentive Fees for EHI Phase 1.

Because this Implementation Plan describes the plan for EHI development, the amounts shown in **Tables 4** and **5** reflect the Incentive Fees as implemented by Amendment No. 1 to the ARDA. The specific Incentive Fees applicable to EHI Phase 1 development are shown in the left-most column in **Table 6** (in 2022 $).

Additional Incentive Fees

While Amendment No. 1 to the ARDA adjusted certain Incentive Fees applicable to EHI Phase 1, the original Incentive Fees in the ARDA would be applicable to any remaining EHI development or Project development (subject to the cumulative 1,200 dwelling unit or time period ceiling/duration). The Incentive Fees from the original ARDA are displayed in the middle column of **Table 6**. The following 2 scenarios describe the applicability of the original Incentive Fees, which are not subject to any annual adjustments.

First, consider the circumstance where no building permits were issued in EHI Phase 1, and Aerojet Phase A was to move forward with new vertical development. Notwithstanding the time period expiration, in this example, any Aerojet Phase A dwelling units would be subject to the Incentive Fees (up to a total of 1,200 dwelling units).

Next, consider the example where EHI's Phase 1 low- and medium-density residential is fully completed and the total 576 dwelling units are constructed. Then, if EHI were to proceed with Phase 2 development, there would be 624 dwelling units (1,200 less Phase 1's 576 units) that would be subject to the Incentive Fees.

Expiration of Incentive Fees

As described in the ARDA, after 7 years from the effective date of the ARDA or 1,200 dwelling units, the incentive period would terminate, and the Incentive Fees would no longer be applicable. For reference, the right-most column in **Table 6** shows the 2022 equivalent of these fees if the Incentive Fee had expired.

Table 6
Rio del Oro Specific Plan Financing Plan Implementation
Development Agreement-Based Fee Schedule

Fee Category	Elliott Phase 1	RDO Incentive Fee	Current Standard City Fees
Applicability	*expires Dec. 4, 2034*	*expires 1,200 units or Oct. 19, 2023 whichever first occurs*	*No Incentive*
Community Places Fee	$1,488.42	$1,257.00	$1,641.89
Community Renovation Fee [1]	$777.75	$0.00	$1,291.09
Park Development Fee [2]	$6,137.21	$8,998.00	$11,473.50
Transportation Fee	$18,266.69	$15,176.00	$19,299.32
Community Facilities Fee	$3,581.95	$3,475.19	$3,753.21
CFF Library Fee	$636.71	$424.00	$768.72
Affordable Housing Fee	$4,269.80	$4,557.00	$6,264.48
Total Development Agreement Fees	**$35,158.53**	**$33,887.19**	**$44,492.21**

da fees

Source: City of Rancho Cordova, January 2022

[1] Community Renovation Fee has previously been referred to as Park Renovation Fee.
[2] Park Development Fee (Phase 1) reflects elimination of the neighborhood park component because neighborhood parks are being developer constructed in lieu of that portion of the fee.

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APPENDICES:

Appendix A: Guiding Principles for Funding Backbone Road Infrastructure

Appendix B: Infrastructure Phasing Plan

Appendix C: EPS Summary of Infrastructure Costs and Credits

Appendix D: Detailed Infrastructure Costs and Credits

Appendix E: Phase I Project Phasing Example

Appendix F: White Rock Road Cost Detail

APPENDIX A:

Guiding Principles for Funding Backbone Road Infrastructure

Specific Plan Document Guiding Principles for Financing (Edited)

This section presents the Guiding Principles for Financing defined in Section 8.5.1 in the Specific Plan document, with minor clarifying edits.[7] This Implementation Plan is consistent with these Guiding Principles. This section eliminates the paragraph numbering used in the Specific Plan document but maintains the paragraph and section title.

Guiding Principles

A set of Guiding Principles defines the "rules" regarding the funding and construction of infrastructure and the phasing of development within the Specific Plan area. These rules clarify the approach for developing required infrastructure as each project or tentative subdivision map moves forward.

Development in the RDOSP shall be consistent with the following policies, which will be incorporated as Conditions of Approval for Tier 2 Entitlements and Subsequent Entitlements.

Responsibility for Infrastructure Funding

Development within the RDOSP shall pay the full costs of infrastructure needed to serve the Specific Plan area, except where other funding sources are appropriate and available. Amounts over and above the developer's fair share will be reimbursed/credited after subsequent developers pay their fair share of the full costs of infrastructure, as detailed in the Tier 2 Entitlements (Development Agreements or Conditions of Approval).

The Financing Plan and the Tier 2 Entitlements will address issues associated with timing of financing and construction, fee credits and reimbursement for developers who install public facilities.

Timing of Infrastructure Funding

The Financing Plan shall provide a strategy for funding backbone infrastructure and community facilities consistent with the timing set forth in the Infrastructure Phasing Master Plan, the Tier 2 Entitlements, and these Guiding Principles.

Developers within the RDOSP shall be required to construct, or pay for the construction of, public improvements as needed pursuant to the approved phasing plans.

[7] The edits are delineated by underlined text where language was added and strikethrough text when language was deleted. Eliminated text is denoted with strikethroughs.

General Timing—Offsite & Onsite Infrastructure

Both on-site (in the Rio Del Oro Specific Plan area) and off-site (outside the physical boundaries of the Specific Plan area) public facilities and infrastructure improvements shall be installed to meet projected development demands in accordance with the City's and/or other agency infrastructure requirements and policies, unless otherwise modified by the Tier 2 Entitlements.

Linking Requirements to General Plan

Before building permit issuance in the Rio Del Oro Project Area, infrastructure required of a specific project shall be constructed to the satisfaction of the City, consistent with General Plan Circulation Element and Infrastructure Services and Finance Policies in effect at the time of small lot tentative map approval, unless otherwise modified by the Tier 2 Entitlements (including, but not limited to, the Tier 2 Development Agreement).

Refinement of Onsite Infrastructure

The Financing Plan shall provide the minimum infrastructure required to meet the development demands of each phase of development. These infrastructure requirements will be refined as part of the review and processing of individual projects prior to the approval of small lot tentative maps or prior to building permits for projects that do not require an associated small lot tentative map.

Tying Offsite Core to Internal Capital Projects

The City of Rancho Cordova Core Backbone Roadway Phasing Plan ~~(attached as Exhibit 8-2)~~, provides minimum Rio Del Oro offsite infrastructure required to meet development standards throughout the City. These offsite infrastructure improvements are required and will be timed with Rio Del Oro onsite capital improvement requirements as provided in the Tier 2 Entitlements.

Offsite Core Infrastructure Timing

Offsite infrastructure timing requirements will be identified in the overall project Conditions of Approval and will be incorporated into the Financing Plan that will be prepared and approved by the City prior to the approval of the first Tier 2 Master Large Lot tentative map.

Finance Mechanisms and Funding Availability

Finance mechanisms that ensure the availability of funding for delivery of required onsite and offsite infrastructure will be in place prior to the approval of final maps or prior to the issuance of building permits for projects that do not require an associated final map. The required infrastructure will be consistent with defined roadway improvements in each phase of development and consistent with City Core Backbone Plan requirements.

Forms of Dedication

All dedications shall be in a form approved by the City, including but not limited to grant deeds, easements, irrevocable offers of dedication, or other approved instruments. The type and form of the dedication shall be at the sole discretion of the City, or as otherwise provided for in the Tier 2 Entitlements.

Right-of-Way and Easement Dedication

Developers shall be required to dedicate right-of-way, public utility easements, landscape easements and pedestrian easements for arterial roadway, collector and residential roads consistent with the requirements of the Specific Plan, with the final map prior to improvement plan approval or the issuance of building permits for individual development proposals.

Park Dedications

All accepted parklands, paseos and other open space shall be dedicated to the City or another appropriate agency, as determined by the City. The timing for the delivery of parks, recreation facilities, paseos and open space within the subject phase shall be determined before the approval of the first small lot tentative subdivision map in the corresponding phase of the Specific Plan, or as set forth in the Tier 2 Entitlements.

Major Roadway Timing and Completeness

The City's goal is to have all infrastructure including onsite and offsite roadway improvements serving a community completed prior to the issuance of building permits in that community.

The Tier 2 Entitlement process will identify the specific timing of the construction of arterial and collector roadway improvements. Clarification of roadway elements that will be subject to this requirement will also be developed and finalized prior to completion of the Tier 2 Entitlements.

Internal Streets Timing and Completeness

The City's goal is to ensure that the phasing of construction within each tentative subdivision map provides logical and reasonably complete infrastructure for residents who occupy homes within the subdivision prior to completion of the entire mapped subdivision. As such, the developer shall provide a phasing plan addressing sequencing and build-out of all internal streets depicted on the tentative map. A detailed agreement on requirements and timing for the Tentative Map Phasing Plan will be finalized as part of the Tier 2 Entitlements.

Logical Completion of Roadway Segments

All roadways, pedestrian facilities, and bikeways shall be constructed in logical and complete segments, connecting from intersection to intersection, to provide safe and adequate access with each phase of development as conditioned with the

approval of each small lot tentative map, or as set forth in the Tier 2 Entitlements.

Two Points of Access

Each phase of a project or tentative subdivision map shall include a collector or local street system that provides at least two points of access to arterial roadways, to the satisfaction of the City.

Arterial Roadway Completeness

Wherever collector or local roadways intersect an arterial roadway, that arterial roadway shall be improved, in accordance with the "Logical Completion of Segments" and "Major Roadway Timing and Completeness" items above, from that point to the next completed arterial roadway segment, or as otherwise set forth in the Tier 2 Entitlements.

Intersection Completion

When intersections are part of the required roadway improvements, they shall be constructed to their planned ultimate configuration, unless otherwise set forth in the Tier 2 Entitlements. Where an intersection is planned for signalization, the new signal shall be installed during construction of the intersection, unless the Tier 2 Entitlements specify otherwise.

Ultimate Utility Installation

Underground sewer, water and drainage facilities shall be installed to the ultimate planned capacity as part of required road construction, unless otherwise set forth in the Tier 2 Entitlements.

Operations and Maintenance Financing

All properties shall be included in one or more financing districts (or will establish an alternative financing mechanism) to provide adequate funding as determined by the City for the annual operation and maintenance costs of streets, street lights, drainage ways, landscaping corridors, open space, parks, and other public facilities prior to the approval of final maps or prior to building permits for projects that do not require an associated final map, or as otherwise set forth in the Tier 2 Entitlements.

Police CFD for Residential Projects

Residential properties will be included in a Community Facilities District that supports police service costs prior to approval of a small lot tentative subdivision map, or for residential properties that do not require subdivision, prior to issuance of building permits.

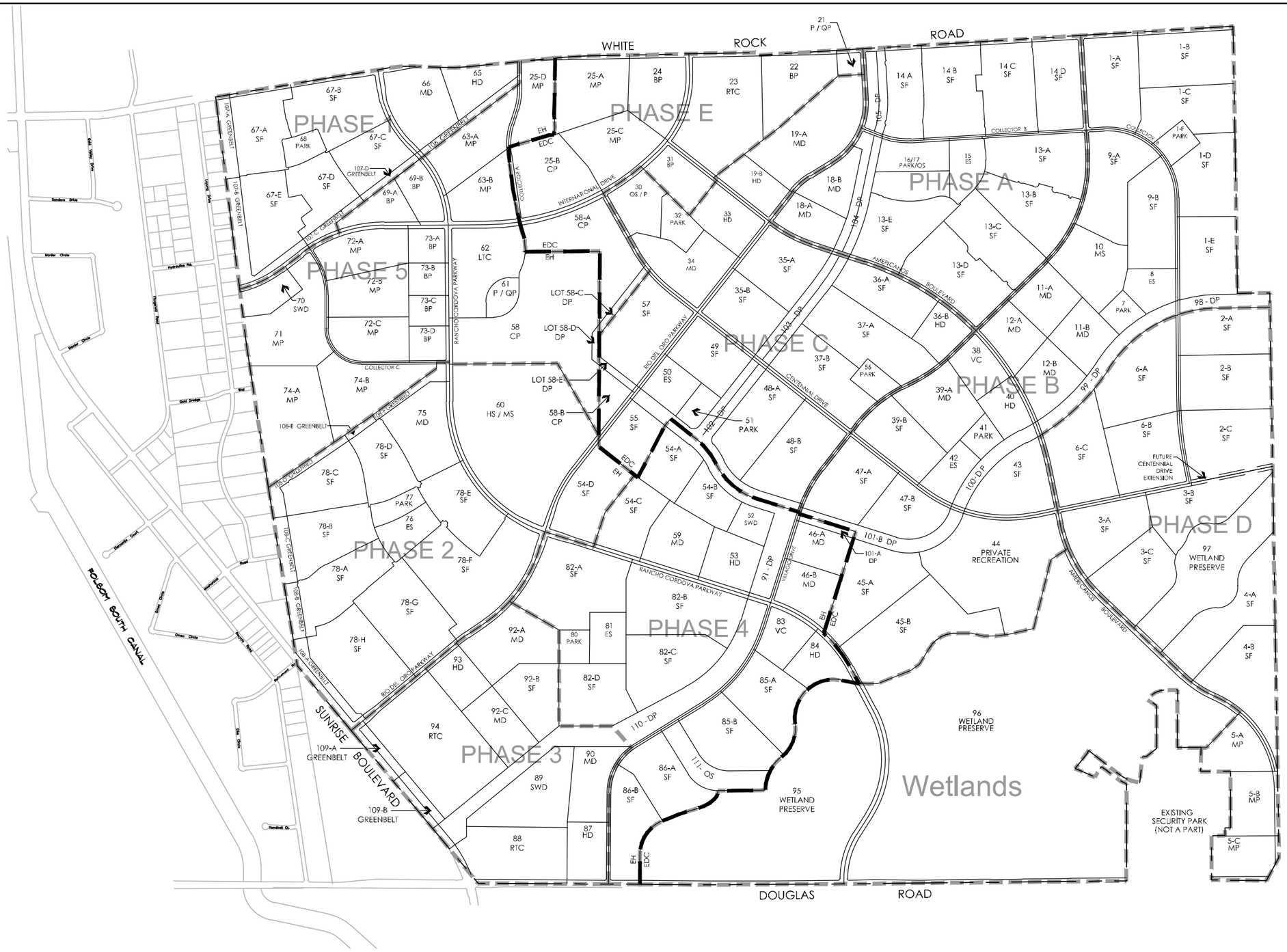
The improvements and requirements described in **Appendix B** and the cost estimates for these improvements in **Appendix D** are based on the City standards and policies in effect at the time of the Specific Plan document approval, subject to the terms and conditions of the amended and revised Tier 2 Development Agreement.

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APPENDIX B:

Infrastructure Phasing Plan

Map B-1	Rio Del Oro Infrastructure Phasing Plan
Map B-2	Rio Del Oro Phase 1 Infrastructure
Map B-3	Rio Del Oro Phase 2 Infrastructure
Map B-4	Rio Del Oro Phase 3 Infrastructure
Map B-5	Rio Del Oro Phase 4 Infrastructure
Map B-6	Rio Del Oro Phase 5 Infrastructure
Map B-7	Rio Del Oro Phase A Infrastructure
Map B-8	Rio Del Oro Phase B Infrastructure
Map B-9	Rio Del Oro Phase C Infrastructure
Map B-10	Rio Del Oro Phase D Infrastructure
Map B-11	Rio Del Oro Phase E Infrastructure



PHASING EXHIBIT

RIO DEL ORO

PHASING PLAN

JANUARY, 2016

Exhibit B–1
Appendix H: Infrastructure Phasing
Rio Del Oro Finance Plan

LEGEND

OWNERSHIP BOUNDARY	
PHASING BOUNDARY	
EASTON DEVELOPMENT COMPANY	EDC
ELLIOTT HOMES	EH

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Exhibit A to the Resolution

PHASING EXHIBIT

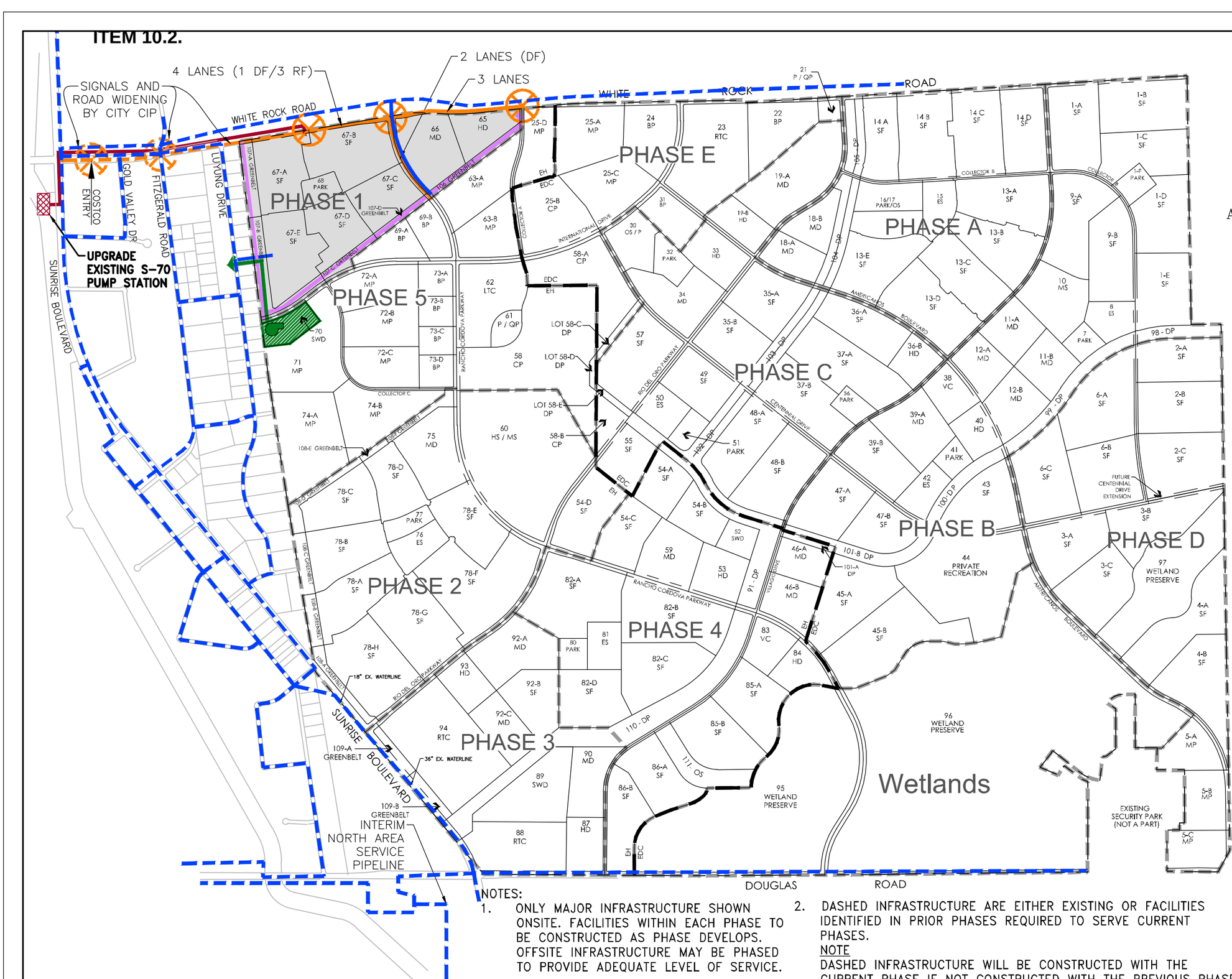
RIO DEL ORO

PHASE 1

JANUARY 2016

Exhibit B-2

APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
OWNERSHIP BOUNDARY		
CURRENT PHASE		
DEVELOPER FRONTAGE	DF	
ROAD FEE	RF	
FAIR SHARE	FS	

NOTES:

1. ONLY MAJOR INFRASTRUCTURE SHOWN ONSITE. FACILITIES WITHIN EACH PHASE TO BE CONSTRUCTED AS PHASE DEVELOPS. OFFSITE INFRASTRUCTURE MAY BE PHASED TO PROVIDE ADEQUATE LEVEL OF SERVICE.
2. DASHED INFRASTRUCTURE ARE EITHER EXISTING OR FACILITIES IDENTIFIED IN PRIOR PHASES REQUIRED TO SERVE CURRENT PHASES.

NOTE
DASHED INFRASTRUCTURE WILL BE CONSTRUCTED WITH THE CURRENT PHASE IF NOT CONSTRUCTED WITH THE PREVIOUS PHASE.

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Exhibit A to the Resolution

PHASING EXHIBIT

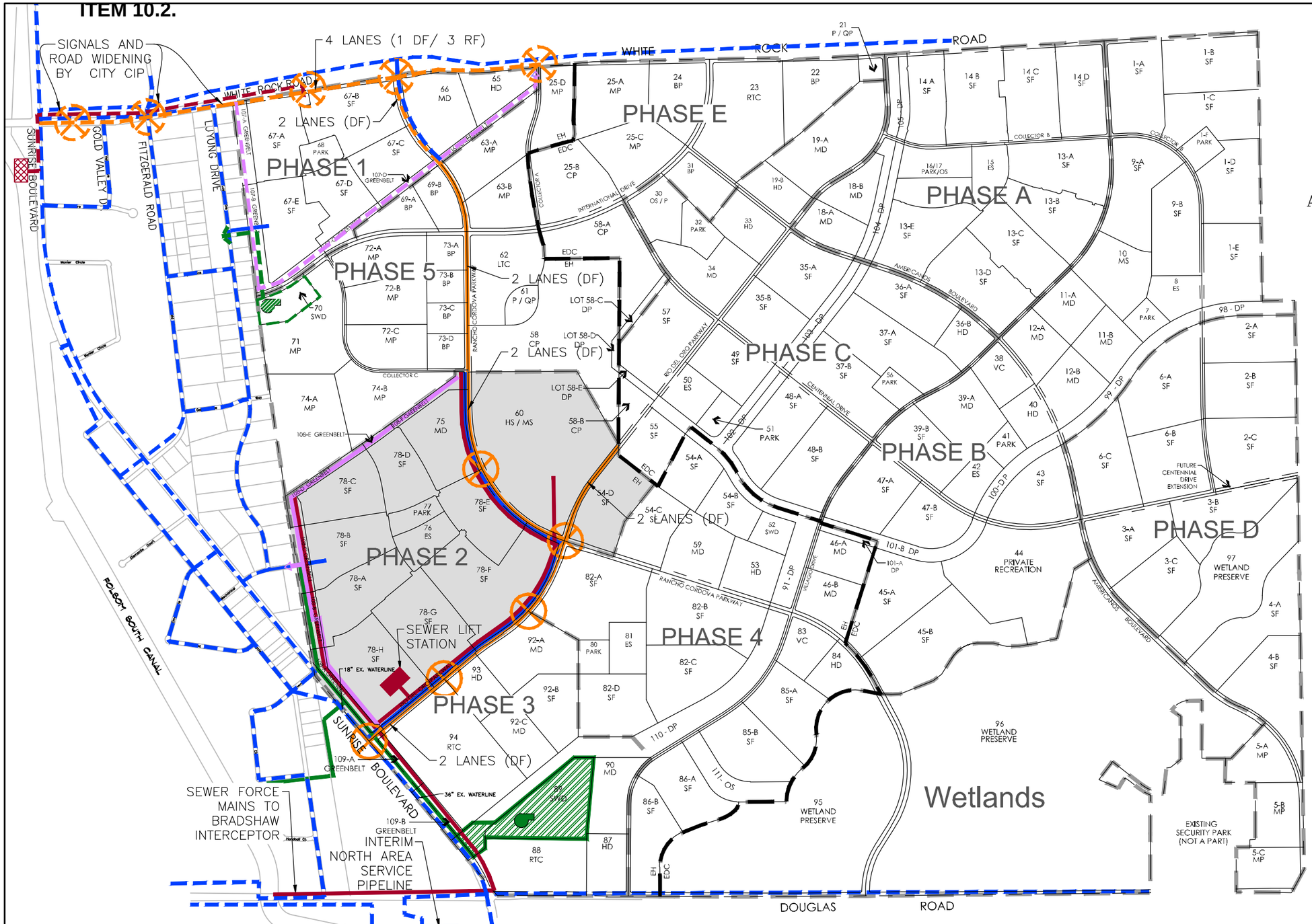
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PHASE 2

JANUARY 2016

Exhibit B-3

APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



NOTES:

1. ONLY MAJOR INFRASTRUCTURE SHOWN ONSITE. FACILITIES WITHIN EACH PHASE TO BE CONSTRUCTED AS PHASE DEVELOPS. OFFSITE INFRASTRUCTURE MAY BE PHASED TO PROVIDE ADEQUATE LEVEL OF SERVICE.
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LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
OWNERSHIP BOUNDARY		
CURRENT PHASE		

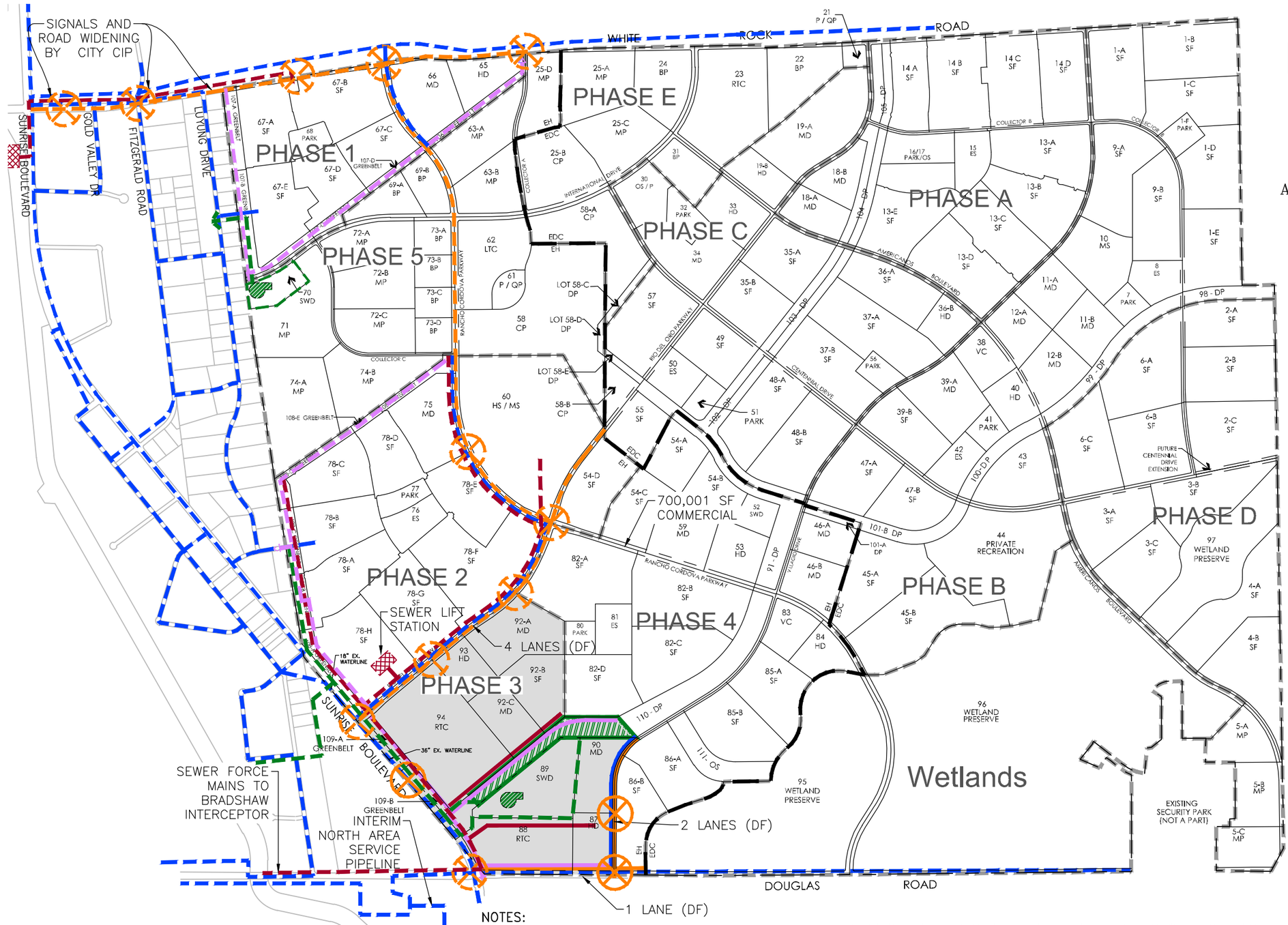
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ROAD FEE	RF
FAIR SHARE	FS

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PHASING EXHIBIT
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PHASE 3
JANUARY 2016

Exhibit B-4
APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
OWNERSHIP BOUNDARY		
CURRENT PHASE		
DEVELOPER FRONTAGE	DF	
ROAD FEE	RF	
FAIR SHARE	FS	

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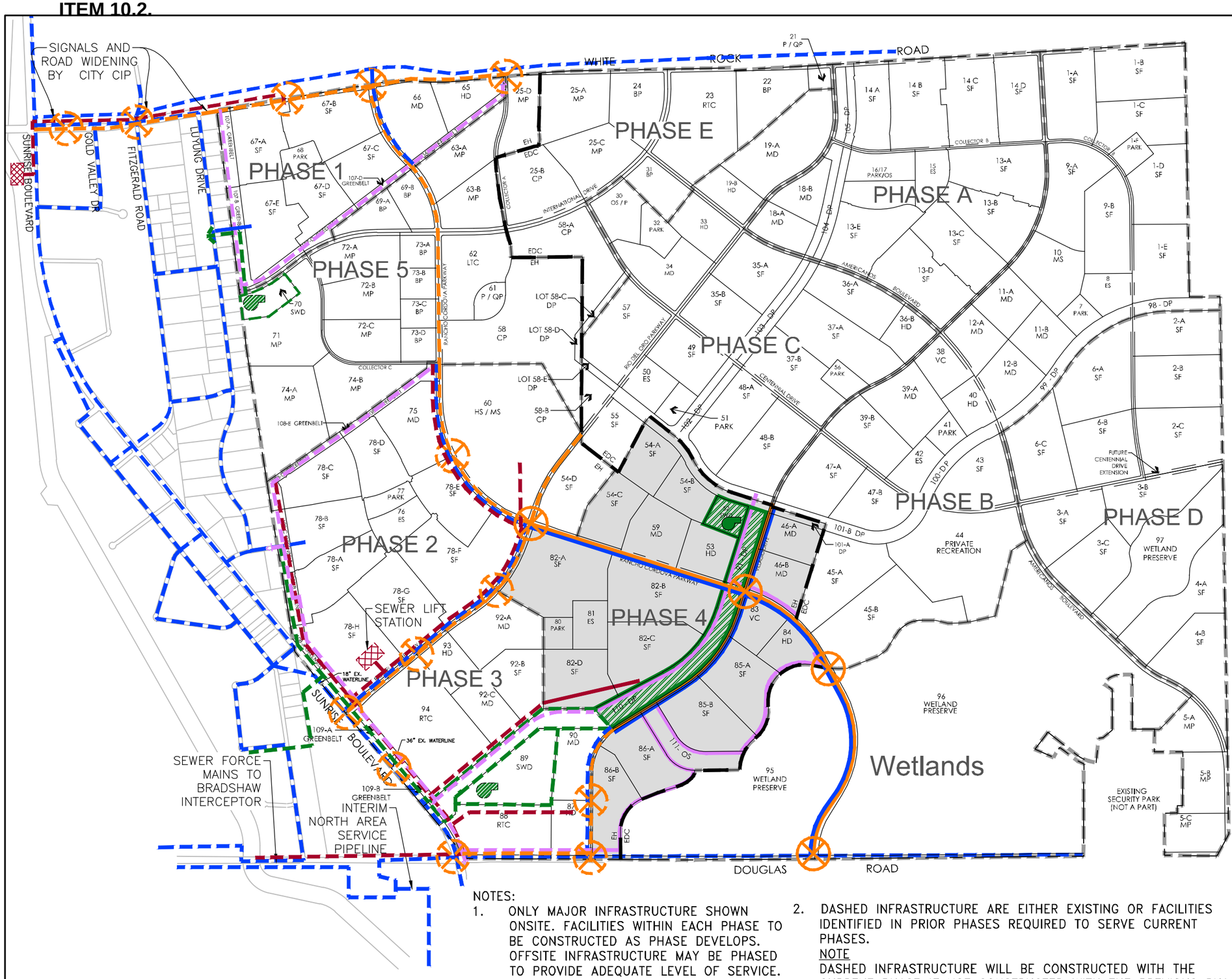
PHASING EXHIBIT

RIO DEL ORO

PHASE 4

JANUARY 2016

Exhibit B-5
APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
OWNERSHIP BOUNDARY		
CURRENT PHASE		
DEVELOPER FRONTAGE	DF	
ROAD FEE	RF	
FAIR SHARE	FS	

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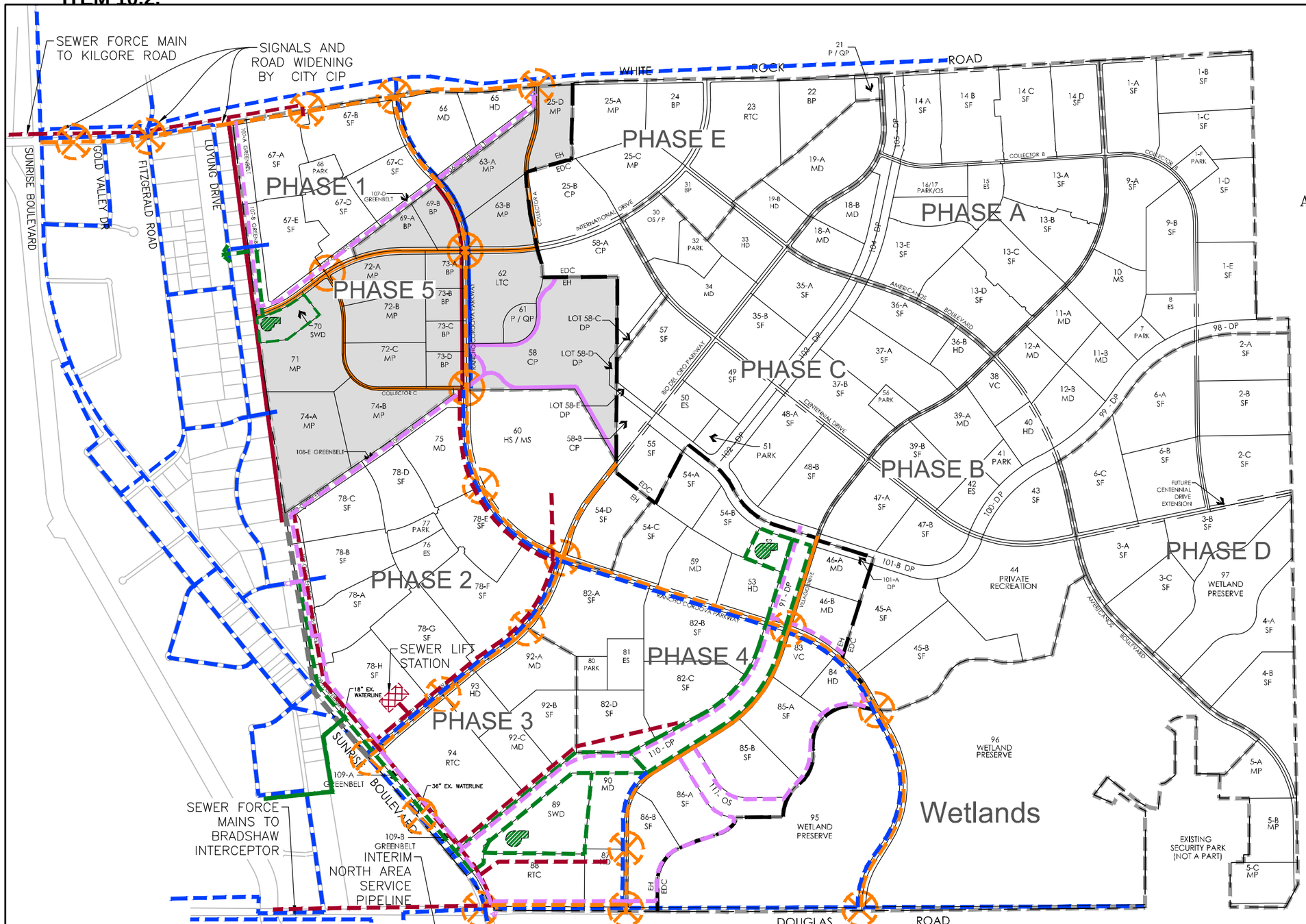
PHASING EXHIBIT

RIO DEL ORO

PHASE 5

JANUARY 2016

Exhibit B–6
APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
OWNERSHIP BOUNDARY		
CURRENT PHASE		
DEVELOPER FRONTAGE	DF	
ROAD FEE	RF	
FAIR SHARE	FS	

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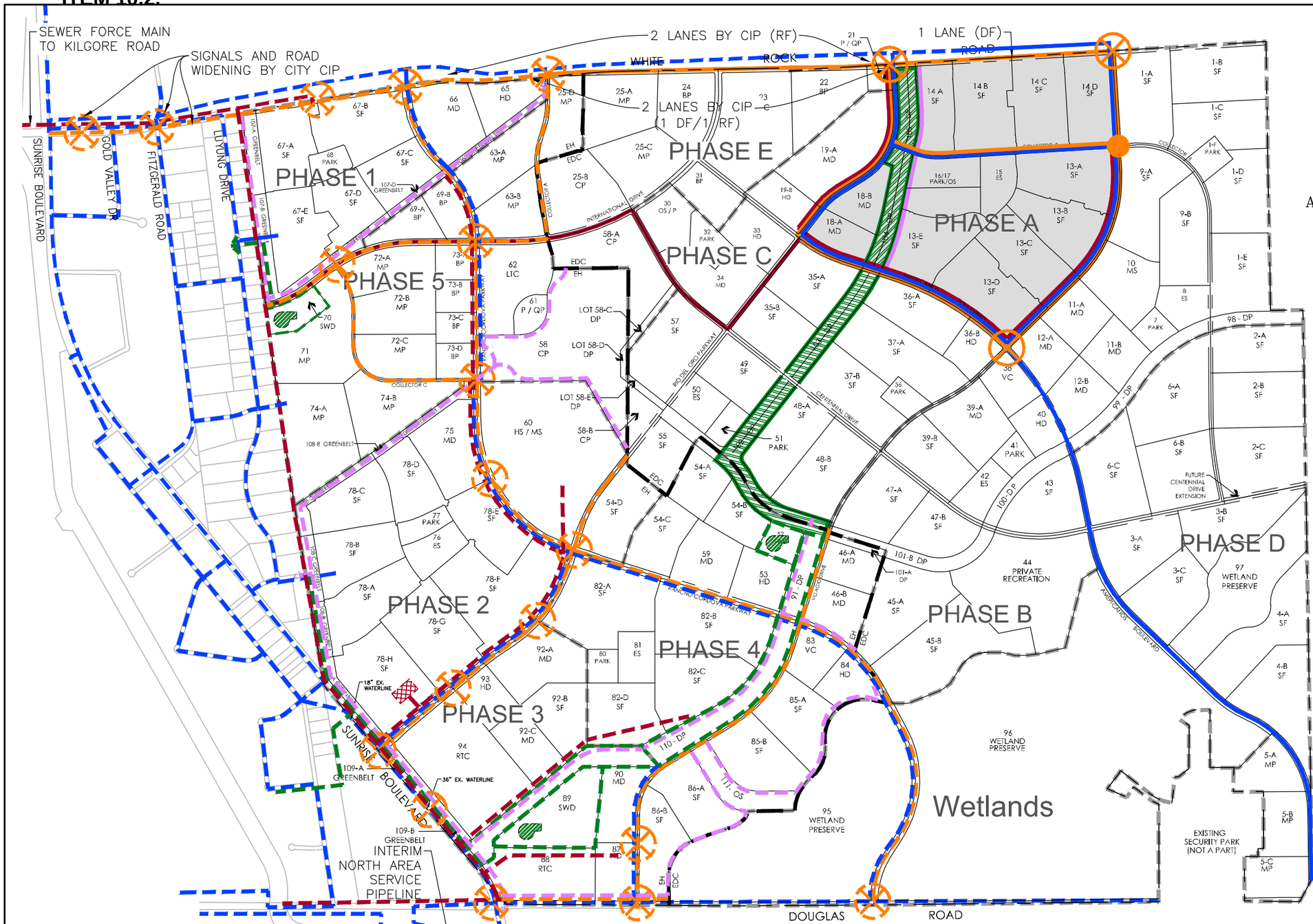
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PHASING EXHIBIT
RIO DEL ORO
PHASE A
JANUARY 2016

Exhibit B–7
APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
OWNERSHIP BOUNDARY		
CURRENT PHASE		
DEVELOPER FRONTAGE	DF	
ROAD FEE	RF	
FAIR SHARE	FS	

NOTES:
1. ONLY MAJOR INFRASTRUCTURE SHOWN ONSITE. FACILITIES WITHIN EACH PHASE TO BE CONSTRUCTED AS PHASE DEVELOPS. OFFSITE INFRASTRUCTURE MAY BE PHASED TO PROVIDE ADEQUATE LEVEL OF SERVICE.
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Tel 916.341.7760 Fax 916.341.7767

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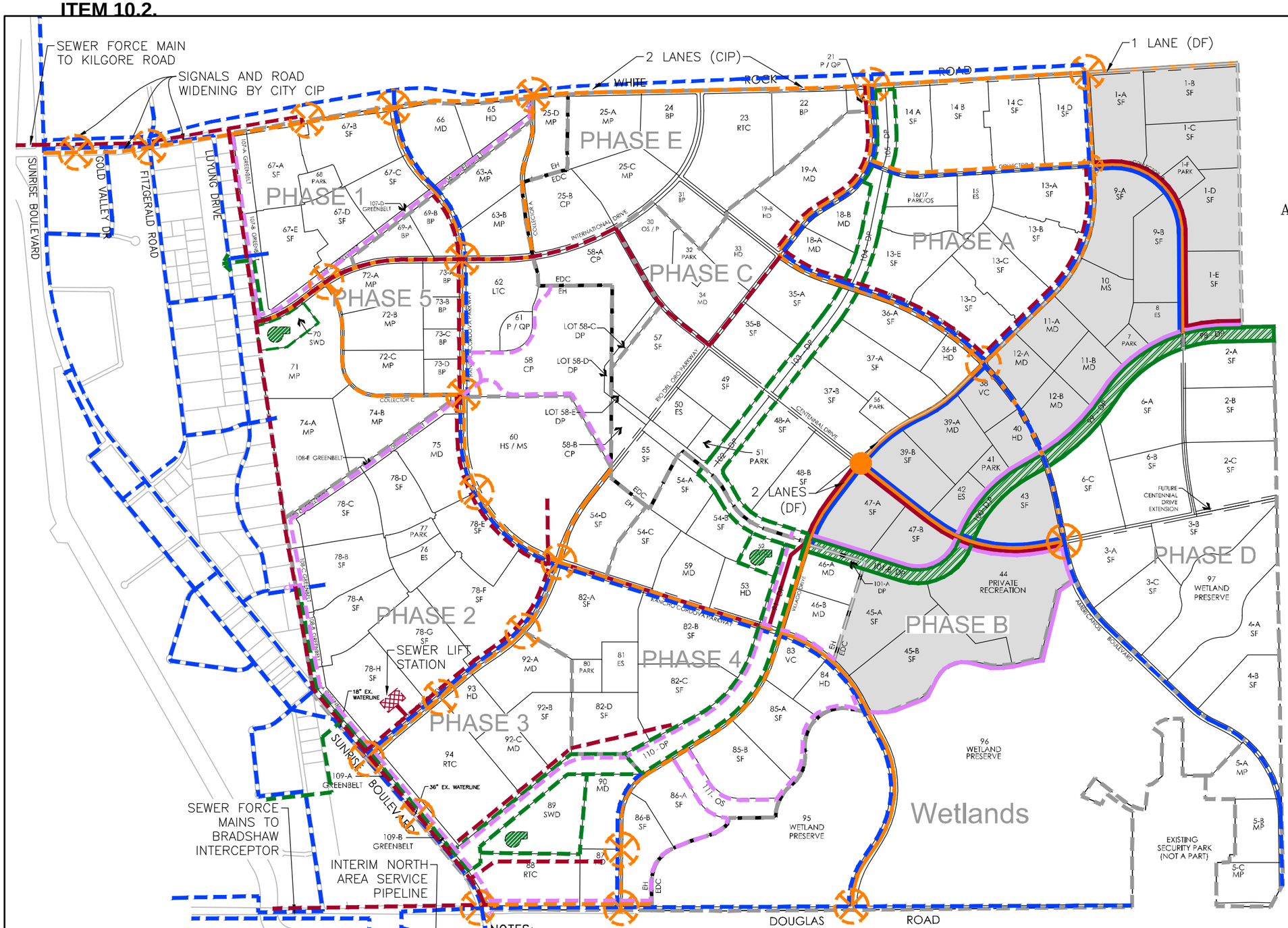
RIO DEL ORO

PHASE B

JANUARY 2016

Exhibit B–8

APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
OWNERSHIP BOUNDARY		
CURRENT PHASE		
DEVELOPER FRONTAGE	DF	
ROAD FEE	RF	
FAIR SHARE	FS	

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Exhibit A to the Resolution

PHASING EXHIBIT

RIO DEL ORO

PHASE C

JANUARY 2016

Exhibit B–9

APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan

SEWER FORCE MAIN TO KILGORE ROAD

SIGNALS AND ROAD WIDENING BY CITY CIP

PHASE 1

PHASE 2

PHASE 3

PHASE 4

PHASE 5

PHASE C

PHASE E

PHASE A

PHASE B

PHASE D

Wetlands

SEWER LIFT STATION

SEWER FORCE MAINS TO BRADSHAW INTERCEPTOR

INTERIM NORTH AREA SERVICE PIPELINE

WHITE ROCK ROAD

DOUGLAS ROAD

INTERNATIONAL DRIVE

ZINFANDEL DRIVE

CENTENNIAL DRIVE

RANCHO CORDOVA PARKWAY

SUNRISE BOULEVARD

ROBERT JOHNS BOULEVARD

FUTURE CENTENNIAL DRIVE EXTENSION

EXISTING SECURITY PARK (NOT A PART)

LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
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CURRENT PHASE		
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FAIR SHARE	FS	

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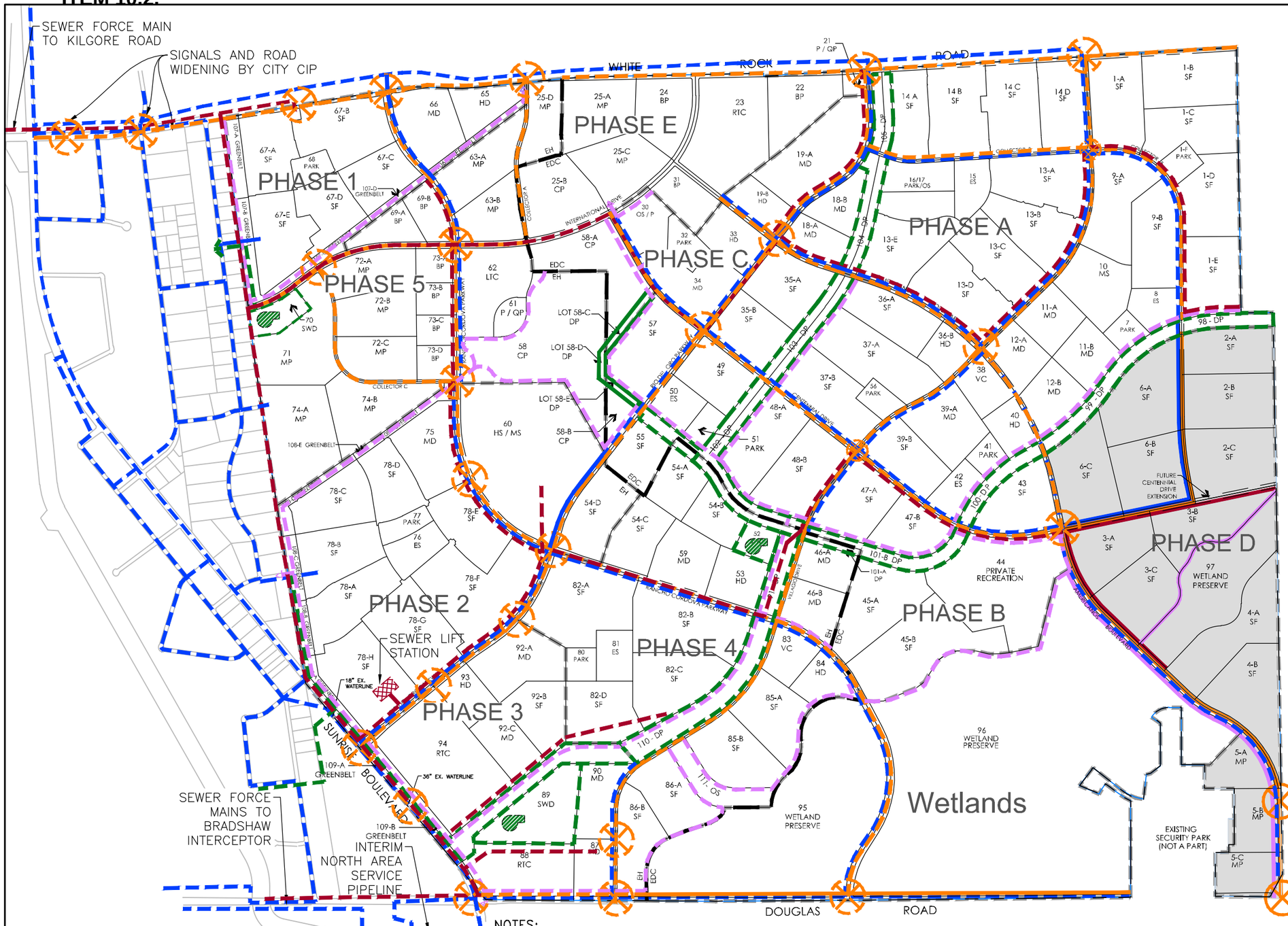
RIO DEL ORO

PHASE D

JANUARY 2016

Exhibit B-10

APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



LEGEND

	CURRENT PHASE/ PROPOSED	PREVIOUS PHASE OR EXISTING
ROADS		
SEWER		
WATER		
DRAINAGE		
TRAILS		
POTENTIAL TRAFFIC SIGNAL		
POTENTIAL ROUNDABOUT		
DRAIN PUMP STATION		
SEWER LIFT STATION		
DETENTION BASIN/CHANNEL		
OWNERSHIP BOUNDARY		
CURRENT PHASE		
DEVELOPER FRONTAGE	DF	
ROAD FEE	RF	
FAIR SHARE	FS	

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Exhibit A to the Resolution

PHASING EXHIBIT

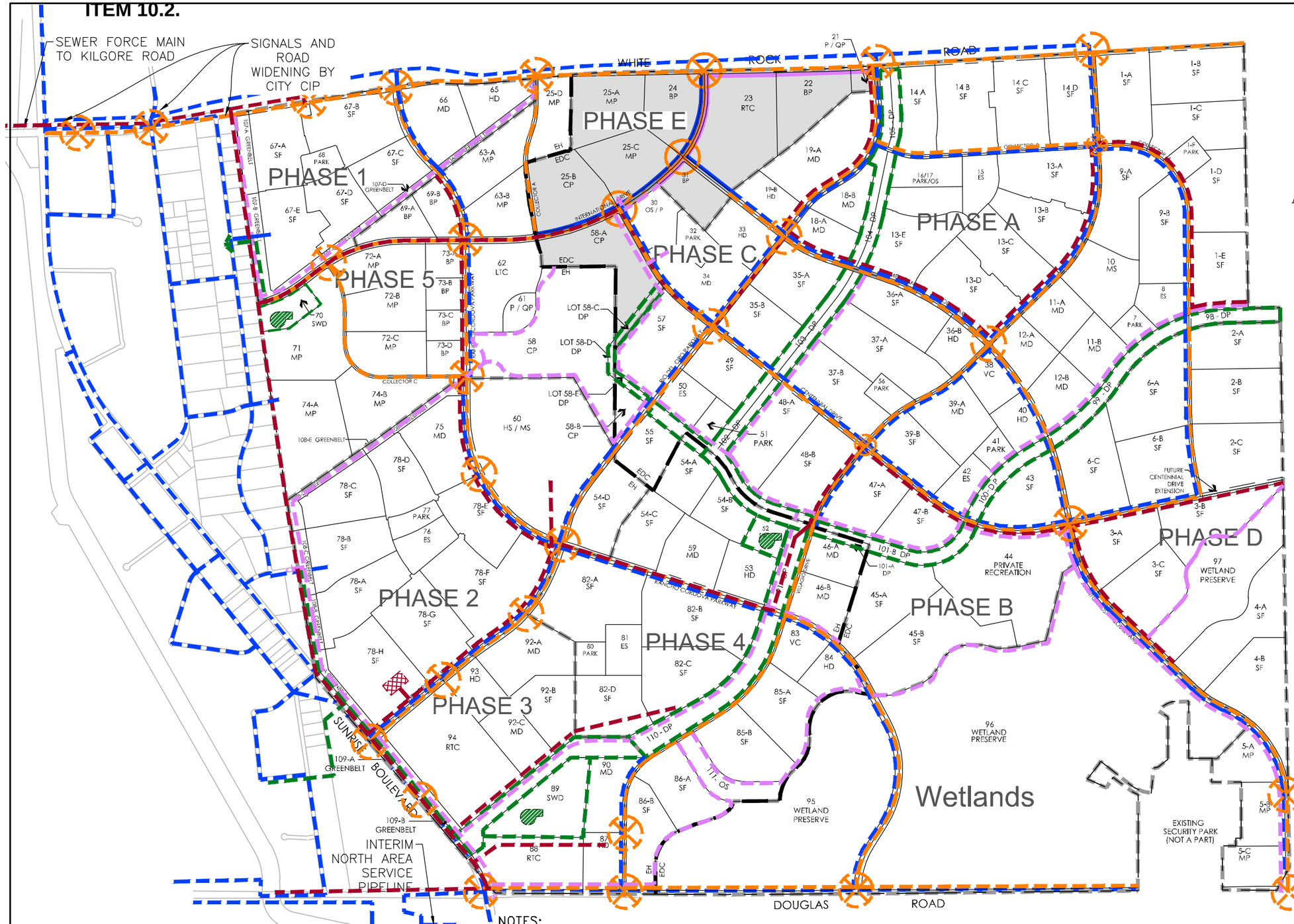
RIO DEL ORO

PHASE E

JANUARY 2016

Exhibit
B–11

APPENDIX B: INFRASTRUCTURE PHASING
Rio Del Oro Specific Plan



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APPENDIX C:

EPS Summary of Infrastructure Costs and Credits

Table C-1 Summary of Estimated Roadway Costs and Reimbursements.....C-1

Table C-2 Summary of Estimated Drainage Costs and Reimbursements.....C-2

Table C-3 Summary of Estimated Water Costs and Reimbursements.....C-3

Table C-4 Summary of Estimated Sewer Costs and Reimbursements.....C-4

Table C-5 Summary of Estimated Parks Costs and Reimbursements.....C-5

Table C-6 Summary of Estimated Green Infrastructure Costs and Reimbursements.....C-6

Table C-7 Summary of Estimated Trails Costs and Reimbursements.....C-7

Table C-8 Summary of Estimated Environmental Mitigation Costs C-8

Table C-1
Rio del Oro Specific Plan Financing Plan Implementation
Summary of Estimated Roadway Costs and Reimbursements [1]

CIP ID	Segment		Constructing Entity	Phase 1 Costs	Phase 1 Est. Reimb.	Phase 1 Net after Reimb.	Phase 2 Costs	Phase 2 Est. Reimb.	Phase 2 Net after Reimb.	Phase 3 Costs	Phase 3 Est. Reimb.	Phase 3 Net after Reimb.	Phase 4 Costs	Phase 4 Est. Reimb.	Phase 4 Net after Reimb.	Phase 5 Costs	Phase 5 Est. Reimb.	Phase 5 Net after Reimb.	Total Costs	Total Est. Reimb.	Total Net after Reimb.
Offsite Backbone Roadways																						
195-200	White Rock Road	Phase 1	City	$2,706,500	$0	$2,706,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$225,000	$0	$225,000	$2,931,500	$0	$2,931,500
Onsite Backbone Roadway																						
111-114	International Drive	Phase 5	Elliott	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,493,460	$6,668,680	$3,824,780	$10,493,460	$6,668,680	$3,824,780
129-132	Rancho Cordova Parkway		Elliott	$3,148,640	$1,216,520	$1,932,120	$8,448,340	$5,878,520	$2,569,820	$0	$0	$0	$17,216,180	$4,962,240	$12,253,940	$5,756,020	$2,454,460	$3,301,560	$34,569,180	$14,511,740	$20,057,440
1-4	Rio del Oro Parkway		Elliott	$0	$0	$0	$8,330,040	$3,945,340	$4,384,700	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,330,040	$3,945,340	$4,384,700
24.1-24.4	Centennial Drive		Elliott	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27-30	Americanos Boulevard		Elliott	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8-11	Villagio Drive		Elliott	$0	$0	$0	$0	$0	$0	$3,927,700	$620,000	$3,307,700	$5,861,000	$1,360,900	$4,500,100	$0	$0	$0	$9,788,700	$1,980,900	$7,807,800
56-58	Douglas Road		Elliott	$0	$0	$0	$0	$0	$0	$1,082,400	0	$1,082,400	$0	$0	$0	$0	$0	$0	$1,082,400	$0	$1,082,400
180	Sunrise Boulevard		Elliott	$0	$0	$0	$0	$0	$0	$375,700	0	$375,700	$0	$0	$0	$0	$0	$0	$375,700	$0	$375,700
Subtotal Onsite Backbone Roadways				**$3,148,640**	**$1,216,520**	**$1,932,120**	**$16,778,380**	**$9,823,860**	**$6,954,520**	**$5,385,800**	**$620,000**	**$4,765,800**	**$23,077,180**	**$6,323,140**	**$16,754,040**	**$16,249,480**	**$9,123,140**	**$7,126,340**	**$64,639,480**	**$27,106,660**	**$37,532,820**
Collector Roadways																			$0	$0	$0
Collector A	White Rock Road to International Drive		Elliott	$0	$0		$0	$0		$0	$0	$0	$0	$0	$0	$1,837,890	$0	$1,837,890	$1,837,890	$0	$1,837,890
Collector B [2]	Rio del Oro Parkway to Centennial Drive		Elliott	$0	$0		$0	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Collector C	International Drive to Rancho Cordova Parkway		Elliott	$0	$0		$0	$0		$0	$0	$0	$0	$0	$0	$2,768,340	$0	$2,768,340	$2,768,340	$0	$2,768,340
Subtotal Collector Roadways				**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,606,230**	**$0**	**$4,606,230**	**$4,606,230**	**$0**	**$4,606,230**
Total Roadways				**$5,855,140**	**$1,216,520**	**$4,638,620**	**$16,778,380**	**$9,823,860**	**$6,954,520**	**$5,385,800**	**$620,000**	**$4,765,800**	**$23,077,180**	**$6,323,140**	**$16,754,040**	**$21,080,710**	**$9,123,140**	**$11,957,570**	**$72,177,210**	**$27,106,660**	**$45,070,550**

roadsum

Source: Wood Rodgers Cost Estimates provided February 2022.

[1] Estimated reimbursements may take the form of fee credits, cash reimbursements, or combination of the two from the City's Transportation Development Impact Fee program depending on the fee program and agency policies.
[2] Collector B is not within Elliot Homes' Phase 1-5.

Table C-2
Rio del Oro Specific Plan Financing Plan Implementation
Summary of Estimated Drainage Costs and Reimbursements [1]

Phase	Constructing Entity	Costs	Est. Reimb.	Est. Net After Reimb.
Phase 1	Elliott	$5,117,357	$5,933,072	($815,715)
Phase 2	Elliott	$14,500,354	$7,669,570	$6,830,784
Phase 3	Elliott	$4,597,148	$3,621,974	$975,174
Phase 4	Elliott	$5,601,079	$4,254,282	$1,346,797
Phase 5	Elliott	$2,062,949	$1,617,075	$445,873
Subtotal		**$31,878,887**	**$23,095,973**	**$8,782,914**

drainsum

Source: Wood Rodgers Cost Estimates provided January 2022.

[1] Estimated reimbursements may take the form of fee credits, cash reimbursements or combination of the two from the City's Storm Drainage Impact Fee program depending on the fee program and agency policies.

Table C-3
Rio del Oro Specific Plan Financing Plan Implementation
Summary of Estimated Water Costs and Reimbursements [1]

Phase	Constructing Entity	Costs	Est. Reimb.	Net After Reimb.
Phase 1	Elliott	$488,568	$488,568	$0
Phase 2	Elliott	$6,619,532	$6,619,532	$0
Phase 3	Elliott	$338,846	$338,846	$0
Phase 4	Elliott	$3,194,817	$3,194,817	$0
Phase 5	Elliott	$1,212,362	$1,212,362	$0
Subtotal		**$11,854,125**	**$11,854,125**	**$0**

watersum

Source: Wood Rodgers Cost Estimates provided January 2022.

[1] Estimated reimbursements may take the form of fee credits, cash reimbursements or combination of the two from the Sacramento County Water Agency's Zone 40 Water Development Fee program depending on the fee program and agency policies.

Table C-4
Rio del Oro Specific Plan Financing Plan Implementation
Summary of Estimated Sewer Costs and Reimbursements [1]

Phase	Constructing Entity	Interim Facilities Costs	Interim Facilities Est. Reimb.	Interim Facilities Net after Reimb.	Permanent Facilities Costs	Permanent Facilities Est. Reimb.	Permanent Facilities Net after Reimb.	Total Costs	Total Costs Est. Reimb.	Total Costs Net after Reimb.
Phase 1	Elliott	$0	$0	$0	$1,361,100	$1,361,100	$0	$1,361,100	$1,361,100	$0
Phase 2	Elliott	$4,333,500	$4,333,500	$0	$8,506,700	$8,506,700	$0	$12,840,200	$12,840,200	$0
Phase 3	Elliott	$640,184	$640,184	$0	$964,184	$964,184	$0	$1,604,367	$1,604,367	$0
Phase 4	Elliott	$0	$0	$0	$2,000,465	$2,000,465	$0	$2,000,465	$2,000,465	$0
Phase 5	Elliott	$0	$0	$0	$8,025,774	$8,025,774	$0	$8,025,774	$8,025,774	$0
Subtotal		**$4,973,684**	**$4,973,684**	**$0**	**$20,858,222**	**$20,858,222**	**$0**	**$25,831,906**	**$25,831,906**	**$0**

sewersum

Source: Wood Rodgers Cost Estimates provided January 2022.

[1] Estimated reimbursements may take the form of fee credits, cash reimbursements or combination of the two from the Sacramento Area Sewer District's Sewer Impact Fee program depending on the fee program and agency policies.

Table C-5
Rio del Oro Specific Plan Financing Plan Implementation
Summary of Estimated Parks Costs and Reimbursements [1]

Phase	Constructing Entity	Costs	Est. Reimb.	Net After Reimb.
Phase 1	Elliott	$1,178,100	$0	$1,178,100
Phase 2	Elliott	$1,247,400	$0	$1,247,400
Phase 3	Elliott	$0	$0	$0
Phase 4	Elliott	$1,155,000	$0	$1,155,000
Phase 5	Elliott	$14,853,300	$0	$14,853,300
Subtotal		**$18,433,800**	**$0**	**$18,433,800**

parks sum

Source: Wood Rodgers Cost Estimates provided February 2022.

[1] Estimated reimbursements may take the form of fee credits, cash reimbursements or combination of the two from the Cordova Recreation and Park Districts Park Fee program depending on the fee program and agency policies.

Table C-6
Rio del Oro Specific Plan Financing Plan Implementation
Summary of Estimated Green Infrastructure Costs and Reimbursements

Phase	Constructing Entity	Costs	Est. Reimb. [1]	Net After Reimb.
Phase 1	Elliott	$3,864,000	$0	$3,864,000
Phase 2	Elliott	$1,835,998	$0	$1,835,998
Phase 3	Elliott	$5,637,599	$0	$5,637,599
Phase 4	Elliott	$6,528,297	$0	$6,528,297
Phase 5	Elliott	$1,958,450	$0	$1,958,450
Subtotal		**$19,824,344**	**$0**	**$19,824,344**

green infra

Source: Wood Rodgers Cost Estimates provided February 2022.

[1] All green infrastructure will be developer-constructed, and green infrastructure costs are not eligible for fee credits or reimbursements.

Table C-7
Rio del Oro Specific Plan Financing Plan Implementation
Summary of Estimated Trails Costs and Reimbursements

Phase	Constructing Entity	Costs	Est. Reimb. [1]	Net After Reimb.
Phase 1	Elliott	$566,797	$0	$566,797
Phase 2	Elliott	$300,300	$0	$300,300
Phase 3	Elliott	$617,386	$0	$617,386
Phase 4	Elliott	$730,191	$0	$730,191
Phase 5	Elliott	$920,766	$0	$920,766
Subtotal		**$3,135,440**	**$0**	**$3,135,440**

trails sum

Source: Wood Rodgers Cost Estimates provided February 2022.

[1] All trails will be developer-constructed, and trail costs are not eligible for fee credits or reimbursements.

Table C-8
Rio del Oro Specific Plan Financing Plan Implementation
Summary of Estimated Environmental Mitigation Costs

Phase	Constructing Entity [1]	Costs	Est. Reimb. [1]	Net After Reimb.
Phase 1	TBD	$ 6,618,378.00	$0	$6,618,378
Phase 2	TBD	$ 375,000.00	$0	$375,000
Phase 3	TBD	$ 2,932,040.00	$0	$2,932,040
Phase 4	TBD	$ 151,750.00	$0	$151,750
Phase 5	TBD	$ 151,750.00	$0	$151,750
Subtotal		**$10,228,918**	**$0**	**$10,228,918**

env. mitigation

Source: Wood Rodgers Cost Estimates provided February 2022.

[1] The ultimate sharing of costs for environmental mitigation has yet to be determined.

APPENDIX D:

Detailed Infrastructure Costs and Credits

Table D.1-1	Rio del Oro On-Site Backbone Roadway Costs by Road Segment and Phase (3 pages)	D-1
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Map D.1-1	Onsite Roadway Improvements	D-7
Map D.1-2	Offsite Roadway Improvements	D-8
Exhibit D.1-1	Funding of Typical Roadway Sections	D-9
Map D.1-3	Master Road Sections Exhibit	D-10
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Exhibit D.1-3	Roadway Sections D–D2	D-12
Exhibit D.1-4	Roadway Section E–F2	D-13
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Exhibit D.1-6	Roadway Sections I–L	D-15
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Exhibit D.1-8	Typical 4-Lane Construction Phasing Options	D-17
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Table D.2-1 Rio del Oro Drainage System Costs D-19
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Map D.2-1 Preliminary Onsite Drainage System D-22
Table D.3-1 Rio del Oro Water System Costs D-23
Table D.3-2 Water System Credits/Reimbursement D-24
Map D.3-1 Water Service Boundaries D-25
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Map D.4-1 Onsite Sewer Improvements D-33
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Map D.5-2 Trails and Open Spaces Plan D-41
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Table D.6-1 Rio Del Oro Environmental Mitigation Cost D-43

Table D.1-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro On-Site Backbone Roadway Costs by Road Segment and Phase

Roadway Costs Phases 1-5

		Description	Unit Cost	Phase 1 Quantity	Phase 1 Total	Phase 2 Quantity	Phase 2 Total	Phase 3 Quantity	Phase 3 Total	Phase 4 Quantity	Phase 4 Total	Phase 5 Quantity	Phase 5 Total	Total Quantity	Total Total
Off-site Roadway															
White Rock Road (CIP ID 195-200); White Rock Road is a CITY CIP Project to be constructed by the City. Elliott will reimburse the City for the Developer Frontage Portion of White Rock Road.															
1	Developer Frontage Impr.	WRR Estimate/Luyung-RCP w/Frontage	$450	2700	$1,215,000		$0		$0		$0	500	$225,000	3200	$1,440,000
1B	LLTM Parcels 65/66 Developer Frontage Impr.	WRR Estimate/Luyung-RCP w/Frontage	$450	1950	$877,500		$0		$0		$0		$0	1950	$877,500
1A	Intersection (Right-in-Right-out) Unit 1A	6 x 2 Int (WRR/Unit 1A)	$614,000	1	$614,000									1	$614,000
	Subtotal White Rock Road				**$2,706,500**		**$0**		**$0**		**$0**		**$225,000**		**$2,931,500**
On-site Backbone Roadway															
International Drive (CIP ID 111-114)															
1	Rio del Oro Boundary to Rancho Cordova Parkway	98' ROW	$1,760		$0		$0		$0		$0	3256	$5,730,560	3256	$5,730,560
1A	Signalized Intersection at Collector Road C	Traffic Signal	$375,700		$0		$0		$0			1	$375,700	1	$375,700
2	Signalized Intersection at Rancho Cordova Parkway	6 x 6 Intersection	$2,680,000		$0		$0		$0		$0	1	$2,680,000	1	$2,680,000
3	Rancho Cordova Parkway to Collector A	98' ROW	$1,760		$0		$0		$0		$0	970	$1,707,200	970	$1,707,200
4	Signalized Intersection at Centennial Drive	6 x 4 Intersection	$2,131,000		$0		$0		$0		$0		$0	0	$0
5	Signalized Intersection at Americanos Boulevard	6 x 4 Intersection	$2,131,000		$0		$0		$0		$0		$0	0	$0
6	Signalized Intersection at White Rock Road	6 x 6 Intersection	$2,680,000		$0		$0		$0		$0		$0	0	$0
	Subtotal International Drive				**$0**		**$0**		**$0**		**$0**		**$10,493,460**		**$10,493,460**
Rancho Cordova Parkway (CIP ID 129-132)															
1A	Signalized Intersection at White Rock Road	South Leg 98' ROW	$1,760	400	$704,000		$0		$0		$0		$0	400	$704,000
1B	Sigalized Intersection RCP/Unit 3A	6x2 Intersection (RCP/Ui	$614,000												
2	White Rock Road to Phase 1 Boundary	98' ROW	$1,760	1389	$2,444,640		$0		$0		$0		$0	1389	$2,444,640
3	Phase 1 Boundary to Collector C	98' ROW	$1,760		$0		$0		$0		$0	3057	$5,380,320	3057	$5,380,320
4	Signalized Intersection at Collector Road C	6 x 2	$375,700		$0		$0		$0		$0	1	$375,700	1	$375,700
5	Collector C to Rio del Oro Parkway	98' ROW	$1,760		$0	3064	$5,392,640		$0		$0		$0	3064	$5,392,640
6	Signalized Intersection at High School / Middle Schoo	Traffic Signal	$375,700		$0	1	$375,700		$0		$0		$0	1	$375,700
7	Signalized Intersection at Rio Del Oro Parkway	6 x 6	$2,680,000		$0	1	$2,680,000		$0		$0		$0	1	$2,680,000
8	Rio Del Oro Parkway to Villagio Drive	98' ROW	$1,760		$0		$0		$0	3418	$6,015,680		$0	3418	$6,015,680
8A	2-12x8 Box Culverts	Box Culverts-Prices	$289,000		$0		$0		$0	1	$289,000		$0	1	$289,000
9	Signalized Intersection at Villagio Drive	6 x 2 Intersection	$2,123,000		$0		$0		$0	1	$2,123,000		$0	1	$2,123,000
10	Villagio Drive to Preserve Boundary	98' ROW	$1,760		$0		$0		$0	1800	$3,168,000		$0	1800	$3,168,000
10A	Preserve Boundary to Douglas Road	76' ROW/108 SS	$1,490		$0		$0		$0	3120	$4,648,800		$0	3120	$4,648,800
10B	2-8x8 Box Culverts	Box Culverts-Prices	$219,600		$0		$0		$0		$0		$0	0	$0
11	Signalized Intersection at Douglas Road-North Leg	76'ROW/108SS+Traffic $	$971,700		$0		$0		$0	1	$971,700		$0	1	$971,700
	Subtotal Rancho Cordova Parkway				**$3,148,640**		**$8,448,340**		**$0**		**$17,216,180**		**$5,756,020**		**$34,569,180**
Rio del Oro Parkway (CIP ID 1-4)															
1	Signalized Intersection at Sunrise Boulevard	East Leg; 98' ROW+ Traffic Signal	$1,760			400	$1,079,700		$0		$0		$0	400	$1,079,700
2	Sunrise Boulevard to Rancho Cordova Parkway	98' ROW	$1,760		$0	3782	$ 4,084,600		$0		$0		$0	3782	$4,084,600
3	Signalized Intersection at High Density	Traffic Signal	$375,700		$0	1	$375,700		$0		$0		$0	1	$375,700
4	Signalized Intersection at Medium Density	Traffic Signal	$375,700		$0	1	$375,700		$0		$0		$0	1	$375,700
5	Rancho Cordova Parkway to Phase 2 Boundary	76' ROW	$1,530		$0	1578	$2,414,340		$0		$0		$0	1578	$2,414,340
5A	2-8x6 Box Culverts		$184,900		$0		$0		$0		$0		$0	0	$0
6	Signalized Intersection at Centennial Drive	4 x 4 Intersection	$2,456,000		$0		$0		$0		$0		$0	0	$0
7	Centennial Drive to Americanos Boulevard	76' ROW(2 lanes, Rsv ROW 4 lanes)	$1,480		$0		$0		$0		$0		$0	0	$0
8	Signalized Intersection at Americanos Boulevard	4 x 4 Intersection	$2,456,000		$0		$0		$0		$0		$0	0	$0
9	Drainage Parkway to White Rock Road	76' ROW(2 lanes, Rsv ROW 4 lanes)	$1,480		$0		$0		$0		$0		$0	0	$0
10	Signalized Intersection at White Rock Road	6 x 4 Intersection	$2,433,000		$0		$0		$0		$0		$0	0	$0
	Subtotal Rio del Oro Parkway				**$0**		**$8,330,040**		**$0**		**$0**		**$0**		**$8,330,040**

Table D.1-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro On-Site Backbone Roadway Costs by Road Segment and Phase

Roadway Costs
Phases 1-5

				Phase 1		Phase 2		Phase 3		Phase 4		Phase 5		Total	
	Description	Unit Cost	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
Centennial Drive (CIP ID 24.1-24.4)														
1 International Drive to Rio Del Oro Parkway	76' ROW(2 lanes, Rsv ROW 4 lanes)	$1,480		$0		$0		$0		$0		$0	0	$0
2 Rio Del Oro Parkway to Villagio/PH-A Boundary	76' ROW(2 lanes, Rsv ROW 4 lanes)	$1,480		$0		$0		$0		$0		$0	0	$0
2A 2-12x8 Box Culverts	Box Culverts-Prices	$289,000		$0		$0		$0		$0		$0	0	$0
3 Roundabout at Villagio Drive	Roundabout-Prices	$200,000		$0		$0		$0		$0		$0	0	$0
4 Villagio/PH-C to Americanos Boulevard	76' ROW(2 lanes, Rsv ROW 4 lanes)	$1,480		$0		$0		$0		$0		$0	0	$0
4A 2-10x8 Box Culverts	Box Culverts Prices	$265,900		$0		$0		$0		$0		$0	0	$0
5 Signalized Intersection at Americanos Boulevard	4 x 4 Intersection	$2,456,000		$0		$0		$0		$0		$0	0	$0
6 Americanos Boulevard to Collector B	76' ROW(2 lanes, Rsv ROW 4 lanes)	$1,480		$0		$0		$0		$0		$0	0	$0
Subtotal Centennial Drive				**$0**		**$0**								
Americanos Boulevard (CIP ID 27-30)														
1 International Drive to Rio Del Oro Parkway	76' ROW	$1,530		$0		$0		$0		$0		$0	0	$0
2 Rio Del Oro Parkway to Villagio Drive	76' ROW	$1,530		$0		$0		$0		$0		$0	0	$0
2A 2-10x8 Box Culverts	Box Culverts-Prices	$265,900		$0		$0		$0		$0		$0	0	$0
3 Signalized Intersection at Villagio Drive	Traffic Signal	$375,700		$0		$0		$0		$0		$0	0	$0
4 Villagio Drive to Centennial Drive	76' ROW	$1,530		$0		$0		$0		$0		$0	0	$0
4A 2-10x8 Box Culverts	Box Culverts-Prices	$265,900		$0		$0		$0		$0		$0	0	$0
5 Centennial Drive to Douglas Road	76' ROW	$1,530		$0		$0		$0		$0		$0	0	$0
5A 2-8x8 Box Culverts	Box Culverts-Prices	$219,600		$0		$0		$0		$0		$0	0	$0
6 Signalized Intersection at Douglas Road	4 x 2 Intersection	$375,700		$0		$0		$0		$0		$0	0	$0
Subtotal Americanos Boulevard				**$0**		**$0**		**$0**		**$0**		**$0**		**$0**
Villagio Drive (CIP ID 8-11)														
1 Signalized Intersection at White Rock Road	6 x 2 Intersection	$375,700		$0		$0		$0		$0		$0	0	$0
2 White Rock Road to Collector B	76' ROW(2 lanes, Rsv ROW 4 lanes)	$1,480		$0		$0		$0		$0		$0	0	$0
3 Roundabout at Collector B	Roundabout-Prices	$231,200		$0		$0		$0		$0		$0	0	$0
4 Collector B to Americanos Boulevard	57' ROW	$1,260		$0		$0		$0		$0		$0	0	$0
5 Americanos Blvd to Drainage Parkway/Ph-5 Bdry	57' ROW	$1,260		$0		$0		$0		$0		$0	0	$0
6 Ph-4 Boundary to Morrison Creek Bridge	57' ROW	$1,260		$0		$0		$0	3890	$4,901,400		$0	3890	$4,901,400
6A 2-8x8 Box Culverts	Box Culverts-Prices	$219,600		$0		$0		$0	1	$219,600		$0	1	$219,600
7 Morrison Creek Bridge to Douglas Road	76' ROW(2 lanes, Rsv ROW 4 lanes)	$1,480		$0		$0	2000	$2,960,000	500	$740,000		$0	2500	$3,700,000
8 Signalized Intersection at Medium / High Density	Traffic Signal	$375,700		$0		$0		$0		$0		$0	0	$0
9 Signalized Intersection at Douglas Road	North Leg 76' ROW, 2 Lanes Res ROW 4 Lanes +Traffic Signal	$1,480		$0		$0	400	$967,700		$0		$0	400	$967,700
Subtotal Villagio Drive				**$0**		**$0**		**$3,927,700**		**$5,861,000**		**$0**		**$9,788,700**
Douglas Road (CIP ID 56-58)														
1 Sunrise Boulevard to Villagio Drive	Developer Frontage	$440		$0		$0	2000	$880,000		$0		$0	2000	$880,000
2 Rio Del Oro Boundary Douglas Frontage	Douglas Frontage	$440		$0		$0	460	$202,400		$0		$0	460	$202,400
Subtotal Douglas Road				**$0**		**$0**		**$1,082,400**		**$0**		**$0**		**$1,082,400**
Sunrise Boulevard (CIP ID 180)														
1 Signalized Intersection at RTC	Traffic Signal	$375,700		$0		$0	1	$375,700		$0		$0	1	$375,700
Subtotal Sunrise Boulevard				**$0**		**$0**		**$375,700**		**$0**		**$0**		**$375,700**

Table D.1-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro On-Site Backbone Roadway Costs by Road Segment and Phase

Roadway Costs Phases 1-5

		Description	Unit Cost	Phase 1 Quantity	Phase 1 Total	Phase 2 Quantity	Phase 2 Total	Phase 3 Quantity	Phase 3 Total	Phase 4 Quantity	Phase 4 Total	Phase 5 Quantity	Phase 5 Total	Total Quantity	Total Total
Collector A															
1	White Rock Road to International Drive	65' ROW	$810		$0		$0		$0		$0	2269	$1,837,890	2269	$1,837,890
2	Signalized Intersection at White Rock Road	South Leg 65' ROW + Traffic Signal	$375,700		$0		$0		$0		$0	1	$375,700	1	$375,700
	Subtotal Collector A				**$0**		**$0**		**$0**		**$0**		**$1,837,890**		**$1,837,890**
Collector C															
1	International Drive to Rancho Cordova Parkway	47' ROW	$870		$0		$0		$0		$0	3182	$2,768,340	3182	$2,768,340
	Subtotal Collector C				**$0**		**$0**		**$0**		**$0**		**$2,768,340**		**$2,768,340**
Collector B															
1	Rio Del Oro Parkway to Villagio Drive	57' ROW	$1,260		$0		$0		$0		$0		$0	0	$0
2	Villagio Drive to Centennial Drive	57' ROW	$1,260		$0		$0		$0		$0		$0	0	$0
2A	2- 8 x 6 Culverts	Box Culverts-Prices	$184,900		$0		$0		$0		$0		$0	0	$0
	Subtotal Collector B				**$0**		**$0**		**$0**		**$0**		**$0**		**$0**
	Estimated On-Site Backbone Roadway Cost				**$5,855,140**		**$16,778,380**		**$5,385,800**		**$23,077,180**		**$21,080,710**		**$72,177,210**

Per Rio Del Oro Large Lot Tentative Map
Road Costs are based on Wood Rodgers' estimates and consistent with the current City-approved TDIF estimates 2015. The City is updating the TDIF/CIP, which is in draft form and was not used for this update.

Table D.1-2
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro On-Site Backbone Roadway Credits/ Reimbursements by Road Segment and Phase

Roadway Credits/ Reimbursments Phases 1-5

		Description	Fee Program Line Item	Unit Reimbursement	Phase 1		Phase 2		Phase 3		Phase 4		Phase 5		Total	
					Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
Off-site Roadway																
White Rock Road (CIP ID 195-200)																
1	CIP Portion	WRR to be constructed as a City CIP Project .		$0.00	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
1A	Intersection (Right-in-Right-out) Village 2	6 x 2 Int (WRR/Village2)		$0	1	$0	0		0		0		0		1	$0
	Subtotal International Drive					**$0**		**$0**		**$0**		**$0**		**$0**		**$0**
On-site Backbone Roadway CIP Reimbursements																
International Drive (CIP ID 111-114)																
1	Rio del Oro Boundary to Rancho Cordova Parkw	98' Road Reimbursement		$680	0	$0	0	$0	0	$0	0	$0	3256	$2,214,080	3256	$2,214,080
1A	Signalized Intersection at Collector Road C	6 x 2 Int Reimburse		$1,414,000	0	$0	0	$0	0	$0	0	$0	1	$1,414,000	1	$1,414,000
2	Signalized Intersection at Rancho Cordova Parkw	6 x 6 Int Reimburse		$2,381,000	0	$0	0	$0	0	$0	0	$0	1	$2,381,000	1	$2,381,000
3	Rancho Cordova Parkway to Collector A	98' Road Reimbursement		$680	0	$0	0	$0	0	$0	0	$0	970	$659,600	970	$659,600
4	Signalized Intersection at Centennial Drive	6 x 4 Int Reimburse		$2,131,000	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
5	Signalized Intersection at Americanos Boulevard	6 x 4 Int Reimburse		$2,131,000	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
6	Signalized Intersection at White Rock Road	6 x 6 Int Reimburse-North Leg		$272,000	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
	Subtotal International Drive					**$0**		**$0**		**$0**		**$0**		**$6,668,680**		**$6,668,680**
Rancho Cordova Parkway (CIP ID 129-132)																
1	Signalized Intersection at White Rock Road	South Leg 98' Road Reimb		$680	400	$272,000	0	$0	0	$0	0	$0	0	$0	400	$272,000
2	White Rock Road to Phase 1 Boundary	98' Road Reimburse		$680	1389	$944,520	0	$0	0	$0	0	$0	0	$0	1389	$944,520
3	Phase 1 Boundary to Collector C	98' Road Reimburse		$680	0	$0	0	$0	0	$0	0	$0	3057	$2,078,760	3057	$2,078,760
4	Signalized Intersection at Collector Road C	6 x 2 Int Reimburse		$375,700	0	$0	0	$0	0	$0	0	$0	1	$375,700	1	$375,700
5	Collector Road C to Rio del Oro Parkway	98' Road Reimburse		$680	0	$0	3064	$2,083,520	0	$0	0	$0	0	$0	3064	$2,083,520
6	Signalized Intersection at High School / Middle S	6 x 2 Int. Reimburse		$1,414,000	0	$0	1	$1,414,000	0	$0	0	$0	0	$0	1	$1,414,000
7	Signalized Intersection at Rio Del Oro Parkway	6 x 6 Int Reimburse		$2,381,000	0	$0	1	$2,381,000	0	$0	0	$0	0	$0	1	$2,381,000
8	Rio Del Oro Parkway to Villagio Drive	98' Road Reimburse		$680	0	$0	0	$0	0	$0	3418	$2,324,240	0	$0	3418	$2,324,240
8A	Box Culverts 2-12x8	Box Culverts-Prices		$0	0	$0	0	$0	0	$0	1	$0	0	$0	1	$0
9	Signalized Intersection at Villagio Drive	6 x 2 Int Reimburse		$1,414,000	0	$0	0	$0	0	$0	1	$1,414,000	0	$0	1	$1,414,000
10	Villagio Drive to Preserve Boundary	98' Road Reimburse		$680	0	$0	0	$0	0	$0	1800	$1,224,000	0	$0	1800	$1,224,000
10A	Preserve Boundary to Douglas Road	76' ROW/108' SS RCP w/in F		$1,490	0	$0	0	$0	0	$0	3120	$4,648,800	0	$0	3120	$4,648,800
10B	2-8x8 Box Culverts	Box Culverts-Prices		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
11	Signalized Intersection at Douglas Road	76'ROW/108SS+Traffic Signa		$971,700	0	$0	0	$0	0	$0	1	$971,700	0	$0	1	$971,700
	Subtotal Rancho Cordova Parkway					**$1,216,520**		**$5,878,520**		**$0**		**$4,962,240**		**$2,454,460**		**$14,511,740**
Rio del Oro Parkway (CIP ID 1-4)																
1	Signalized Intersection at Sunrise Boulevard	East Leg; 98' ROW + Traffic S		$647,700	0	$0	1	$647,700	0	$0	0	$0	0	$0	1	$647,700
2	Sunrise Boulevard to Rancho Cordova Parkway	98' Road Reimburse		$680	0	$0	3782	$2,571,760	0	$0	0	$0	0	$0	3782	$2,571,760
3	Signalized Intersection at High Density	Traffic Signal		$0	0	$0	1	$0	0	$0	0	$0	0	$0	1	$0
4	Signalized Intersection at Medium Density	Traffic Signal		$0	0	$0	1	$0	0	$0	0	$0	0	$0	1	$0
5	Rancho Cordova Parkway to Phase 2 Boundary	76' Road Reimburse		$460	0	$0	1578	$725,880	0	$0	0	$0	0	$0	1578	$725,880
5A	2-8x6 Box Culverts	Box Culverts-Prices		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
6	Signalized Intersection at Centennial Drive	4 x 4 Int Reimburse		$2,076,000	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0

Table D.1-2
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro On-Site Backbone Roadway Credits/ Reimbursements by Road Segment and Phase

Roadway Credits/ Reimbursments Phases 1-5

		Description	Fee Program Line Item	Unit Reimbursement	Phase 1 Quantity	Phase 1 Total	Phase 2 Quantity	Phase 2 Total	Phase 3 Quantity	Phase 3 Total	Phase 4 Quantity	Phase 4 Total	Phase 5 Quantity	Phase 5 Total	Total Quantity	Total Total
7	Centennial Drive to Americanos Boulevard	76' ROW (2 Lanes, Reserv ROW 4 Lanes)		$310	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
8	Signalized Intersection at Americanos Boulevard	4 x 4 Int Reimburse		$2,076,000	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
9	Americanos Boulevard to White Rock Road	76' ROW (2 lanes, Reserv RO		$310	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
10	Signalized Intersection at White Rock Road	6 x 4 Int Reimburse		$2,131,000	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
	Subtotal Rio del Oro Parkway					**$0**		**$3,945,340**		**$0**		**$0**		**$0**		**$3,945,340**
Centennial Drive (CIP ID 24.1-24.4)																
1	International Drive to Rio Del Oro Parkway	76' ROW (2 Lanes Reserv RO		$310	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
2	Rio Del Oro Parkway to Villagio Drive	76' ROW (2 Lanes Reserv RO		$310	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
2A	2-12x8 Box Culverts	Box Culverts-Prices		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
3	Roundabout at Villagio Drive	Roundabout-Prices		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
4	Villagio Drive to Americanos Boulevard	76' ROW (2 Lanes Reserv RO		$310	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
4A	2-10x8 Box Culverts	Box Culverts-Prices		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
5	Signalized Intersection at Americanos Boulevard	4 x 4 Int Reimburse		$2,076,000	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
6	Americanos Boulevard to Collector B	76' ROW (2 Lanes Reserv RO		$310	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
	Subtotal Rio del Oro Parkway					**$0**		**$0**								
Americanos Boulevard (CIP ID 27-30)																
1	International Drive to Rio Del oro Parkway	76' Road Reimburse		$460	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
2	Rio Del oro Parkway to Villagio Drive	76' Road Reimburse		$460	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
2A	2-10x8 Box Culverts	Box Culverts-Prices		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
3	Signalized Intersection at Villagio Drive	2 Legs 76' ROW Road Reimb+Traffic Signal		$743,700	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
4	Villagio Drive to Centennial Drive	76' Road Reimburse		$460	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
4A	2-10x8 Box Culverts	Box Culvert Prices		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
5	Centennial Drive to Douglas Road	76' Road Reimburse		$460	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
5A	2-8x8 Box Culverts	Box Culverts-Prices		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
6	Signalized Intersection at Douglas Road	Traffic Signal		$375,700	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
	Subtotal Americanos Boulevard					**$0**		**$0**		**$0**		**$0**		**$0**		**$0**
Villagio Drive (CIP ID 8-11)																
1	Signalized Intersection at White Rock Road	Traffic Signal		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
2	White Rock Road to Collector B	76' ROW(2 lanes, Rsv ROW 4 lanes) Reimb.		$310	0		0		0		0		0		0	
3	Roundabout at Collector B			$0	0		0		0		0		0		0	
4	Collector B to Americanos Boulevard	76' ROW(2 lanes, Rsv ROW 4 lanes) Reimb.		$310	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
5	Americanos Boulevard to Drainage Pkwy/Ph-5 B	76' ROW(2 lanes, Rsv ROW 4 lanes) Reimb.		$310	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0

Table D.1-2
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro On-Site Backbone Roadway Credits/ Reimbursements by Road Segment and Phase

Roadway Credits/ Reimbursments Phases 1-5

		Description	Fee Program Line Item	Unit Reimbursement	Phase 1		Phase 2		Phase 3		Phase 4		Phase 5		Total	
					Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total	Quantity	Total
6	Ph-5 Boundary to Morrison Creek Bridge	76' ROW(2 lanes, Rsv ROW 4 lanes) Reimb.		$310	0	$0	0	$0	0	$0	3890	$1,205,900	0	$0	3890	$1,205,900
6A	2-8x8 Box Culverts			$0	0	$0	0	$0	0	$0	1	$0	0	$0	1	$0
7	Morrison Creek Bridget to Douglas Road	76' ROW(2 lanes, Rsv ROW 4 lanes) Reimb.		$310	0	$0	0	$0	2000	$620,000	500	$155,000	0	$0	2500	$775,000
8	Signalized Intersection at Medium / High Density	Traffic Signal		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
9	Signalized Intersection at Douglas Road	Traffic Signal		$0	0	$0	0	$0	400	$0	0	$0	0	$0	400	$0
	Subtotal Villagio Drive					**$0**		**$0**		**$620,000**		**$1,360,900**		**$0**		**$1,980,900**
Douglas Road (CIP ID 56-58)																
1	Sunrise Boulevard to Villagio Drive	Developer Frontage		$0.00	0	$0	0	$0	2000	$0	0	$0	0	$0	2000	**$ -**
2	Rio Del Oro Boundary Douglas Frontage	Douglas Frontage		$0.00	0	$0	0	$0	460							
	Subtotal Douglas Road					**$0**		**$0**		**$0**		**$0**		**$0**		**$ -**
Sunrise Boulevard (CIP ID 180)																
1	Signalized Intersection at RTC	Traffic Signal		$0	0	$0	0	$0	1	$0	0	$0	0	$0	1	**$0**
	Subtotal Sunrise Boulevard					**$0**		**$0**		**$0**		**$0**		**$0**		**$0**
Collector A																
1	White Rock Road to International Drive	65' ROW		$0	0	$0	0	$0	0	$0	0	$0	1	$0	1	$0
2	Signalized Intersection at White Rock Road	Traffic Signal		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
	Subtotal Local Road A					**$0**		**$0**		**$0**		**$0**		**$0**		**$0**
Collector C																
1	International Drive to Rancho Cordova Parkway	47' ROW		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
	Subtotal Local Road C					**$0**		**$0**		**$0**		**$0**		**$0**		**$0**
Collector B																
1	Rio Del Oro Parkway to Villagio Drive	57' ROW		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
2	Villagio Drive to Centennial Drive	57' ROW		$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
2A	2- 8 x 6 Culverts			$0	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
	Subtotal Unnamed Street B					**$0**		**$0**		**$0**		**$0**		**$0**		**$0**
	Estimated On-Site Backbone Roadway Credit/Reimbursment					**$1,216,520**		**$9,823,860**		**$620,000**		**$6,323,140**		**$9,123,140**		**$27,106,660**

Per Rio Del Oro Large Lot Tentative Map
Reimbursements per Update to the 2035 Transportation CIP and the Nexus Study for the Development Impact Fee Program, dated December 2013

ONSITE ROADWAY IMPROVEMENTS

RIO DEL ORO

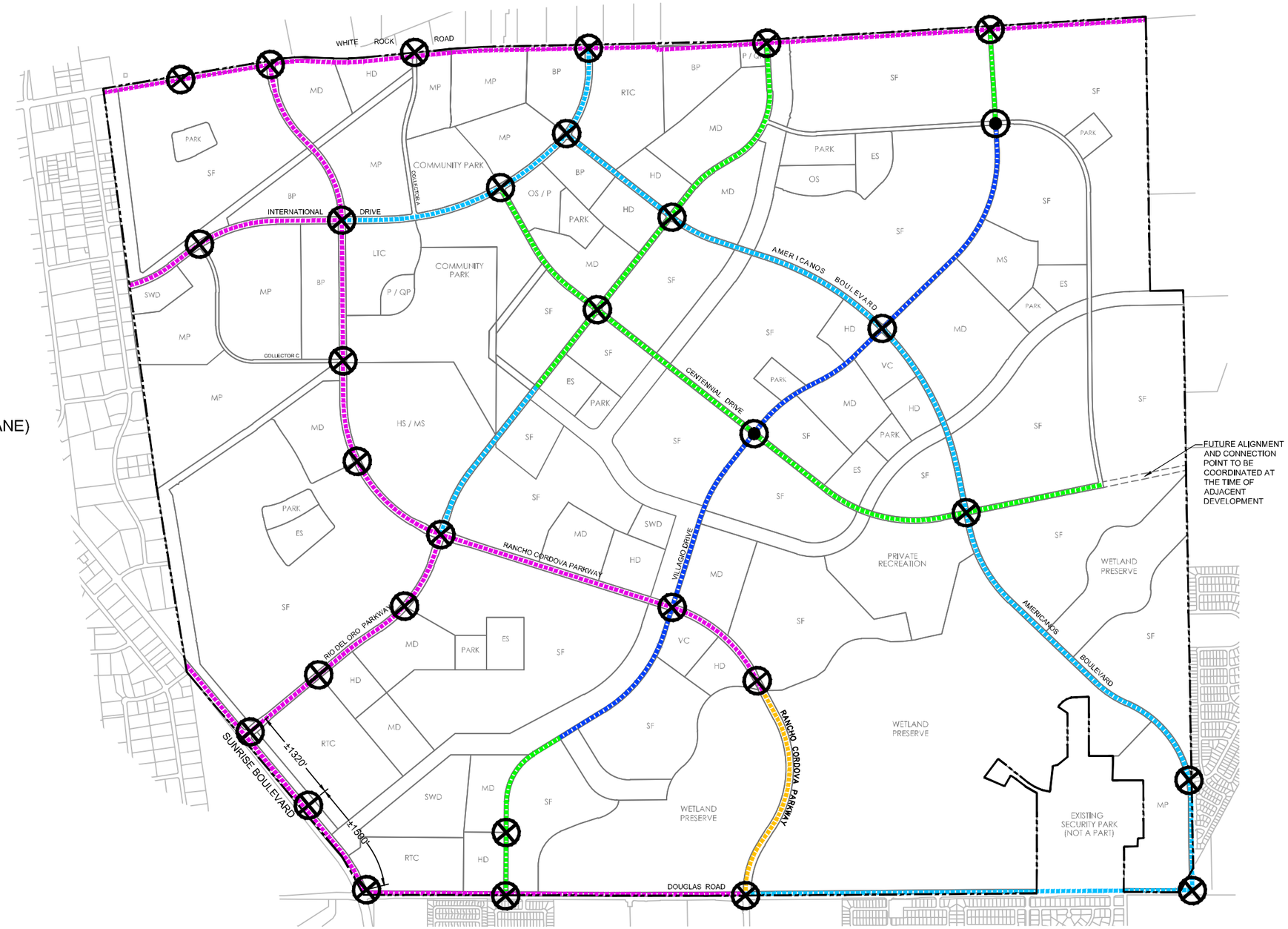
CITY OF RANCHO CORDOVA, CALIFORNIA

LEGEND

SYMBOL	R.O.W.	# OF LANES
	72'	MAJOR ARTERIAL (SPECIAL SECTION)
	98'	6 LANE MAJOR ARTERIAL
	76'	4 LANE MAJOR ARTERIAL
	76'	2 LANE SECONDARY ROAD (ROW FOR FUTURE EXPANSION TO 4 LANE)
	57'	2 LANE SPECIAL ACCESS COLLECTOR

TRAFFIC SIGNAL (FINAL LOCATIONS, WHEN WARRANTED, WILL BE DETERMINED AT THE TIME OF SMALL LOT TENTATIVE MAPS)

POTENTIAL ROUNDABOUT LOCATION (FEASIBILITY TO BE DETERMINED AT THE TIME OF ADJACENT SMALL LOT TENTATIVE MAPS)



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(OFFSITE ROADWAY IMPROVEMENTS)

RIO DEL ORO

CITY OF RANCHO CORDOVA CALIFORNIA

OCTOBER, 2014



LEGEND

ONSITE ROADWAY IMPROVEMENTS

OFFSITE ROADWAY IMPROVEMENTS

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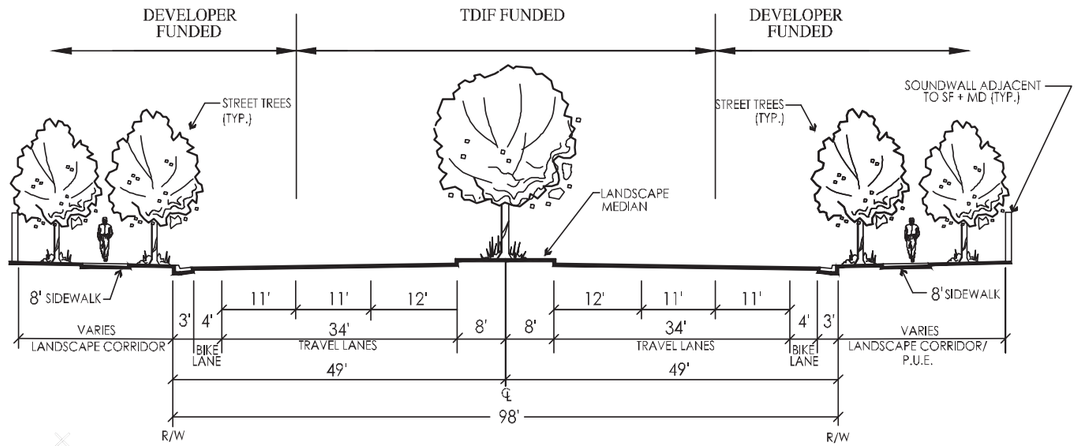
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4-LANE AND 6-LANE FUNDING

RIO DEL ORO

CITY OF RANCHO CORDOVA CALIFORNIA

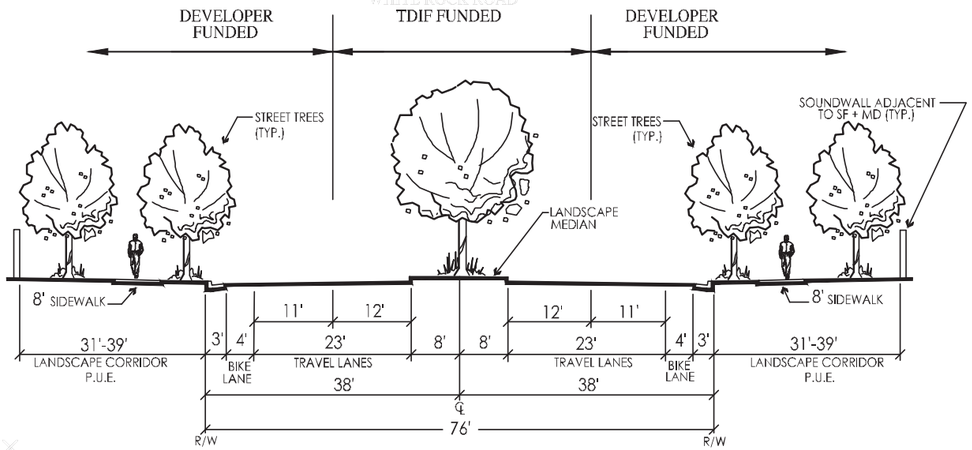
DECEMBER, 2014



6 LANE MAJOR ARTERIAL

98' STREET SECTION
NOT TO SCALE

RANCHO CORDOVA PARKWAY (NORTH OF WETLAND PRESERVE)
RIO DEL ORO PARKWAY (WEST OF RANCHO CORDOVA PARKWAY)
INTERNATIONAL DRIVE (WEST OF RANCHO CORDOVA PARKWAY)
WHITE ROCK ROAD



4 LANE MAJOR ARTERIAL

76' STREET SECTION
NOT TO SCALE

AMERICANOS BOULEVARD
PORTION OF RIO DEL ORO PARKWAY

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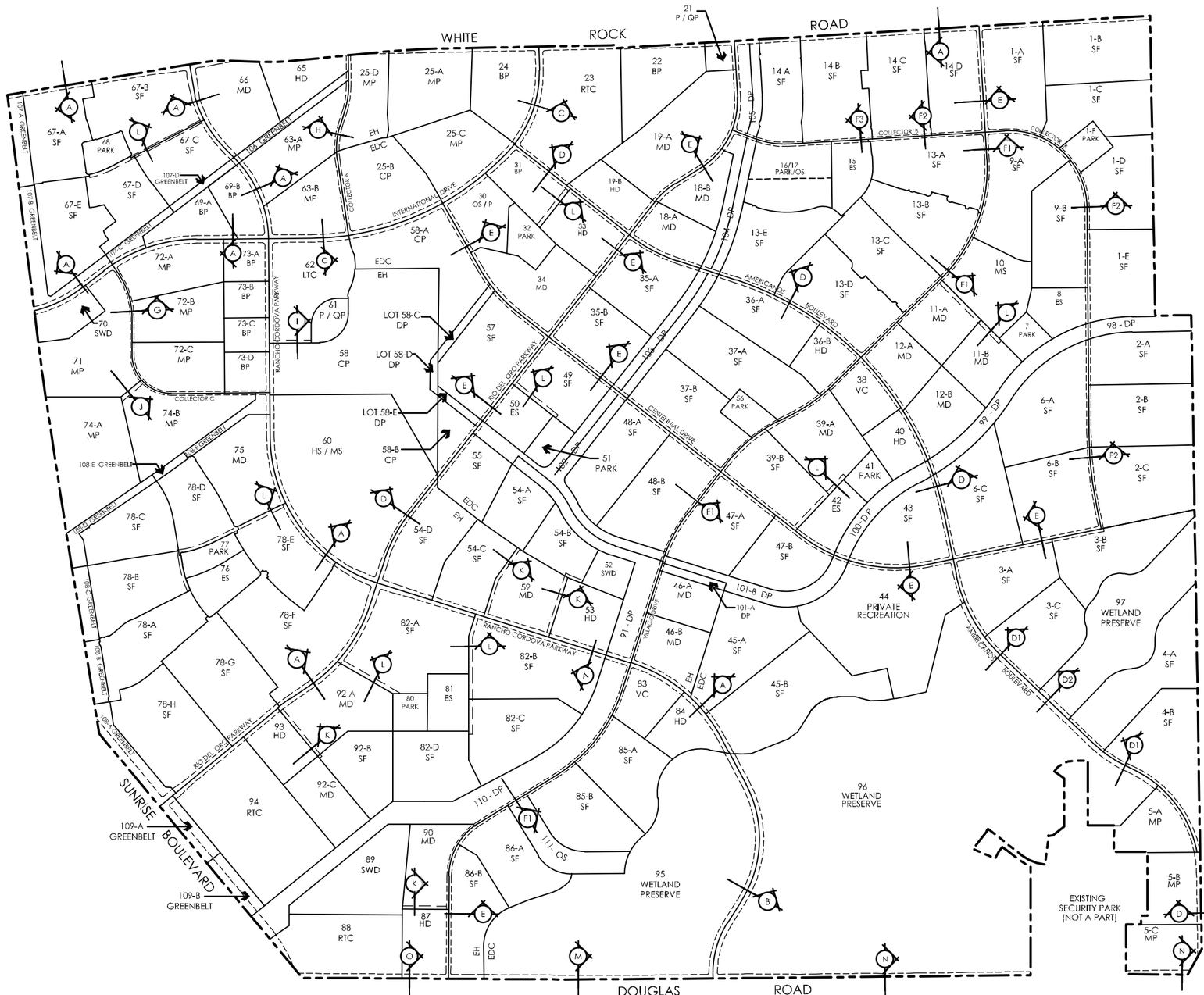
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MASTER SECTIONS EXHIBIT

RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA

JANUARY 7, 2016



NOTE

MAP CROSS SECTIONS G THROUGH L ARE PROVIDED TO ESTABLISH LEGAL ACCESS FOR INTERIOR PARCELS. THE LOCATION OF THESE ROADS MAY BE CHANGED, TO THE SATISFACTION OF THE CITY ENGINEER, AT THE SMALL LOT TENTATIVE MAP STAGE OR DURING DESIGN REVIEW FOR PARCELS THAT WILL NOT BE FURTHER SUBDIVIDED.

NORTH
NOT TO SCALE

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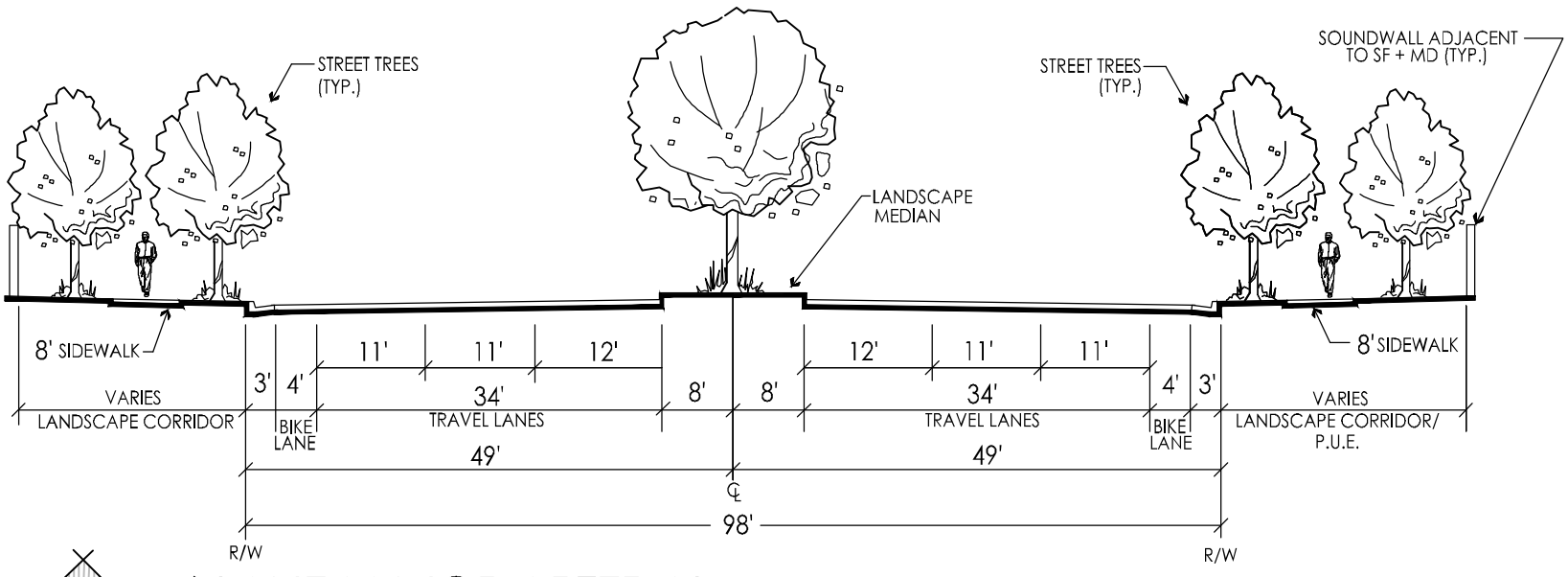
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SECTIONS

RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA

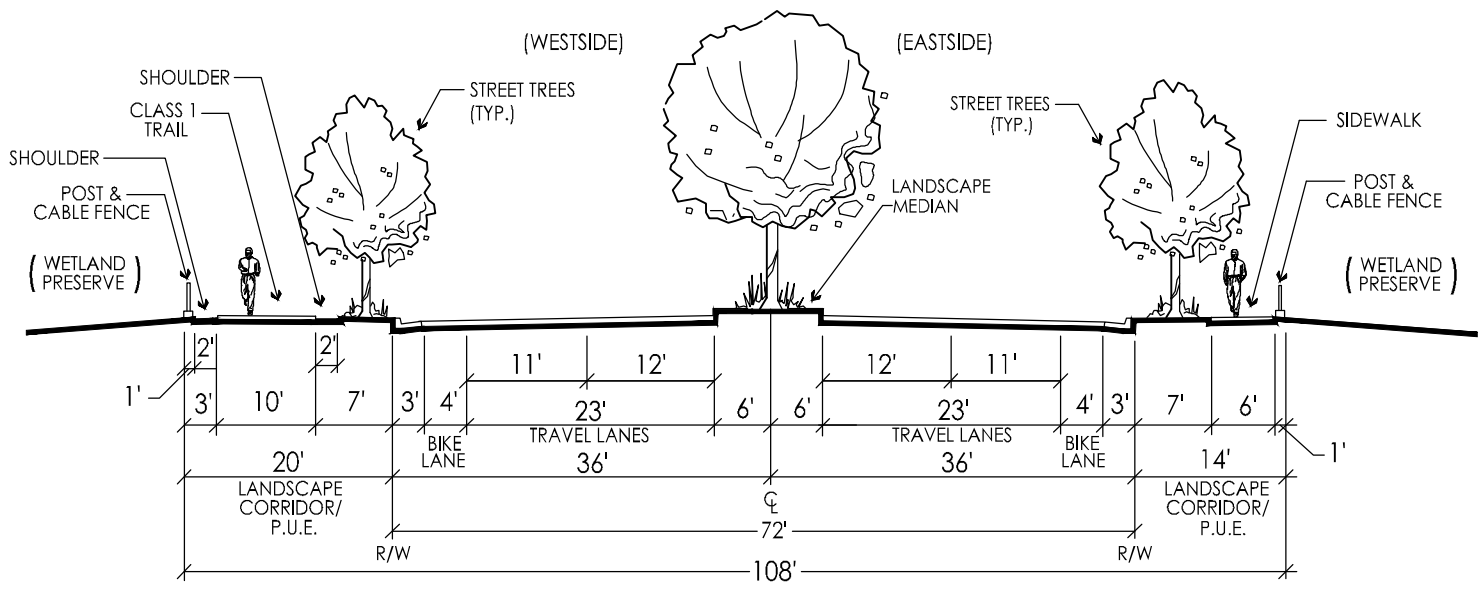
JANUARY 7, 2016



A 6 LANE MAJOR ARTERIAL

98' STREET SECTION
NOT TO SCALE

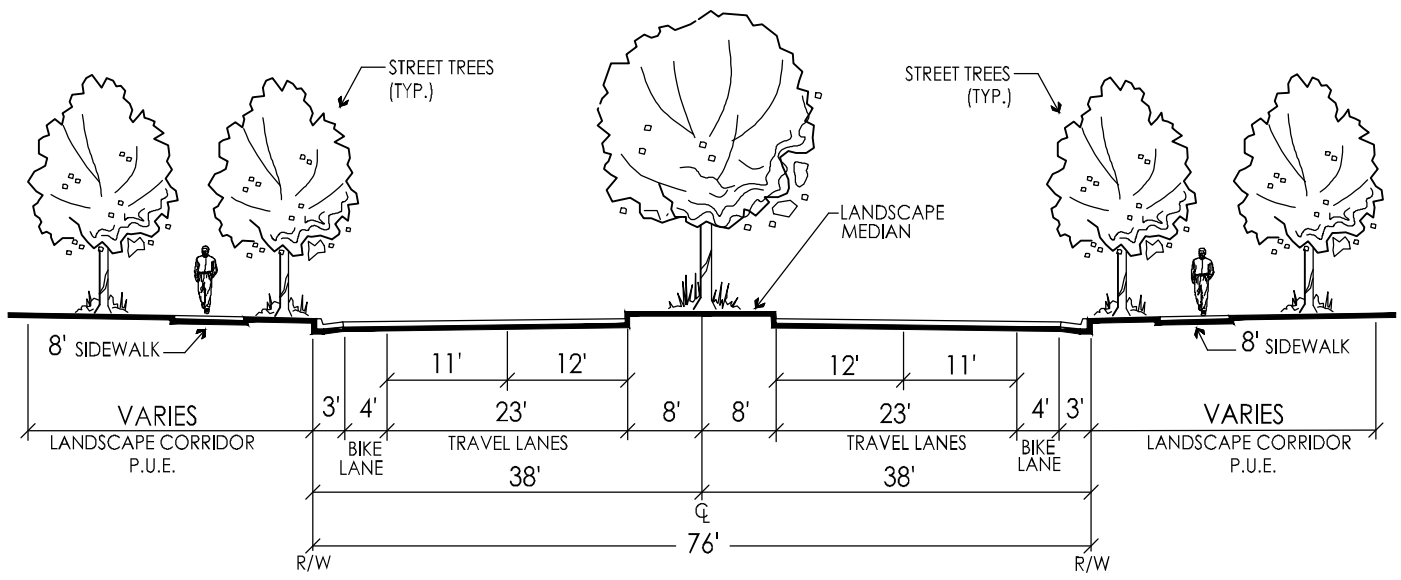
-RANCHO CORDOVA PARKWAY (NORTH OF WETLAND PRESERVE)
-RIO DEL ORO PARKWAY (WEST OF RANCHO CORDOVA PARKWAY)
-INTERNATIONAL DRIVE (WEST OF RANCHO CORDOVA PARKWAY)
-WHITE ROCK ROAD



B 4 LANE MAJOR ARTERIAL - SPECIAL SECTION

72' STREET SECTION
NOT TO SCALE

-RANCHO CORDOVA PARKWAY (WITHIN WETLAND PRESERVE)
-108' OVERALL INCLUDING LANDSCAPE CORRIDORS; AS CONSTRAINED BY WETLAND PRESERVE
-LANDSCAPED MEDIAN WIDTH MAY BE REDUCED TO 4' TOTAL WIDTH IF NEEDED FOR SLOPE EASEMENTS WITHIN THE 108' OVERALL CONSTRAINED DEVELOPMENT AREA.



C INTERNATIONAL DRIVE (EAST OF RANCHO CORDOVA PARKWAY)

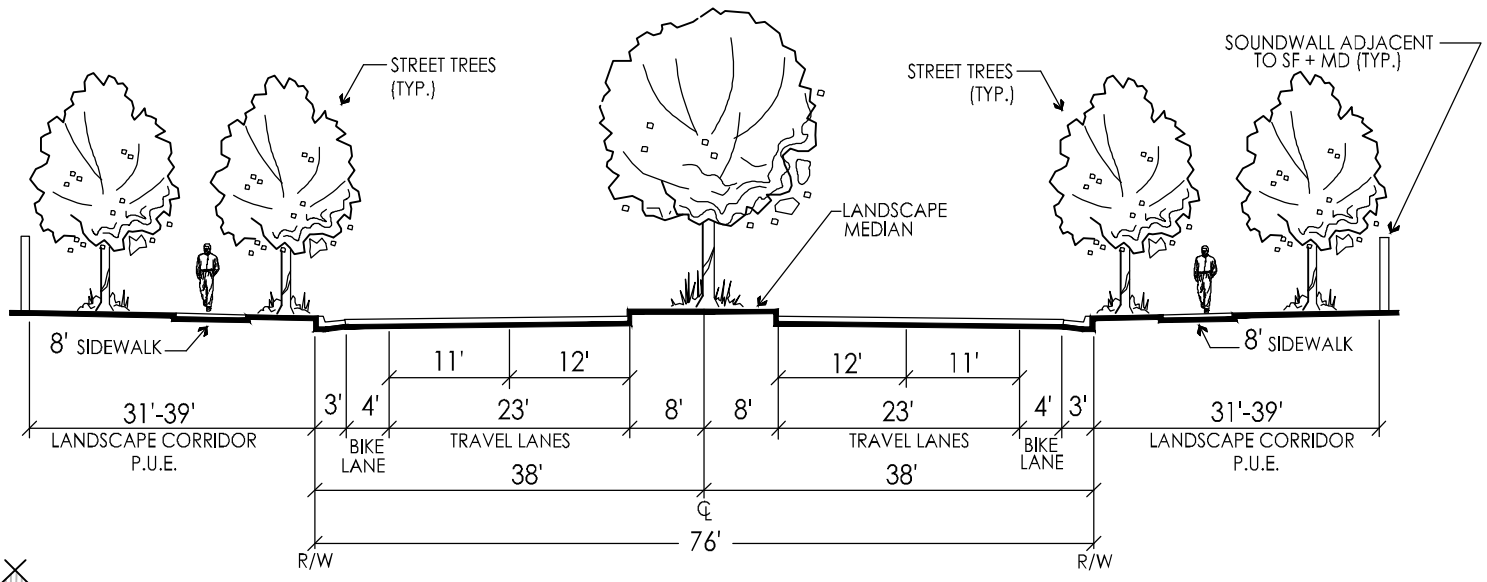
76' STREET SECTION
NOT TO SCALE

NOT TO SCALE

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SECTIONS
RIO DEL ORO
CITY OF RANCHO CORDOVA, CALIFORNIA
JANUARY 7, 2016

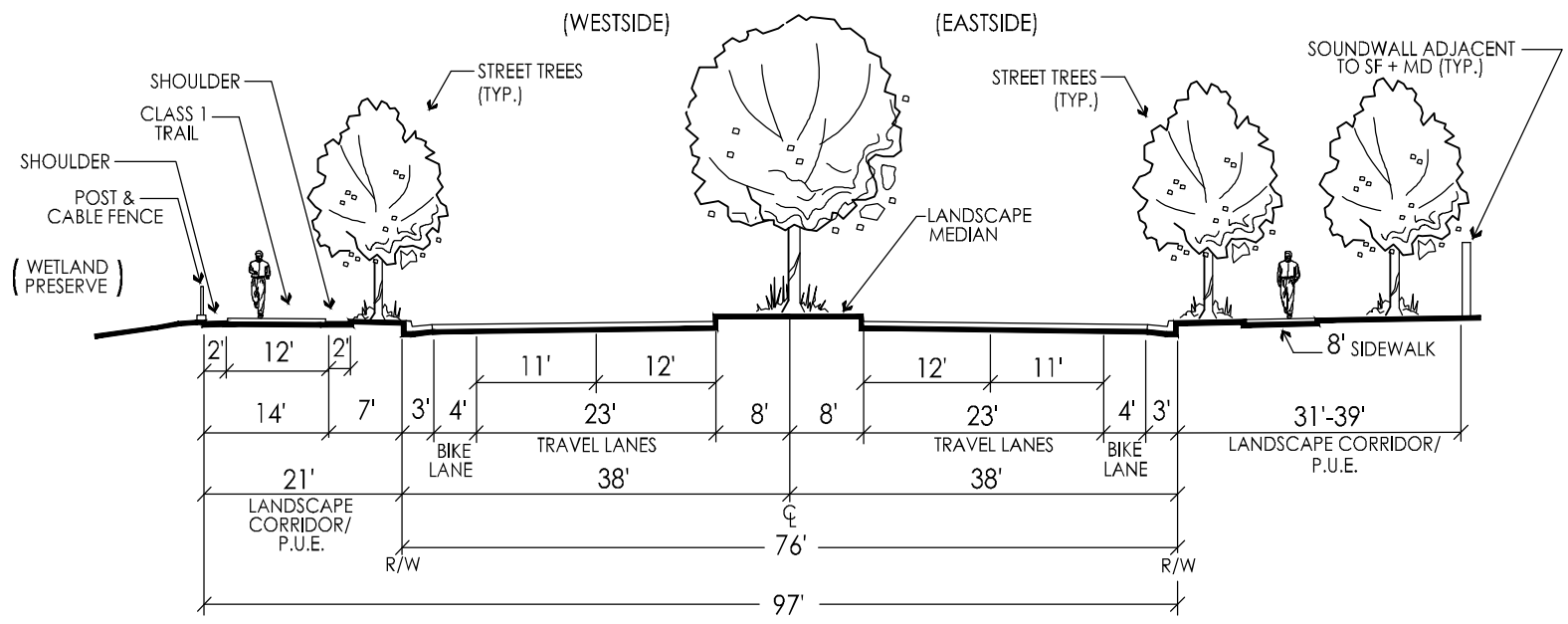


D

4 LANE MAJOR ARTERIAL

76' STREET SECTION
NOT TO SCALE

-AMERICANOS BOULEVARD
-PORTION OF RIO DEL ORO PARKWAY

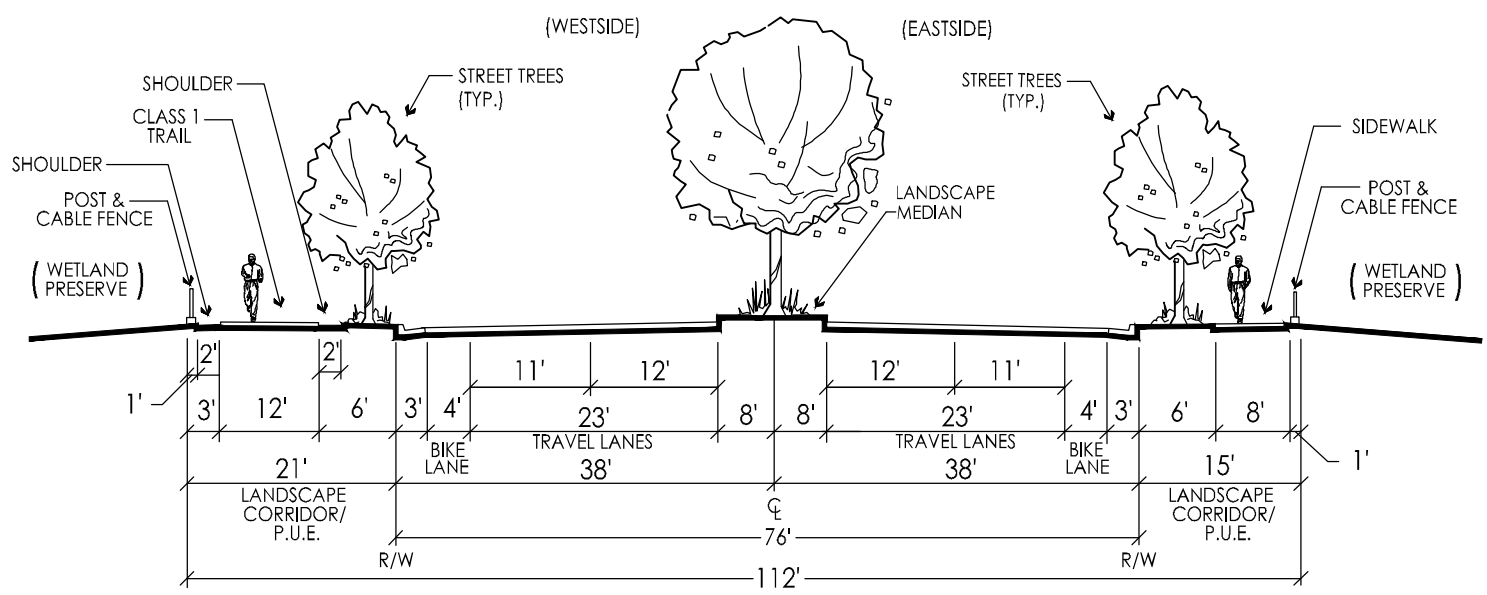


D-1

AMERICANOS BOULEVARD-SPECIAL SECTION

97' STREET SECTION
NOT TO SCALE

-WETLAND ON WESTSIDE , DEVELOPMENT ON EASTSIDE
-OVERALL WIDTH (97') INCLUDES LANDSCAPE CORRIDOR ON WESTSIDE ONLY



D-2

AMERICANOS BOULEVARD-SPECIAL SECTION

76' STREET SECTION
NOT TO SCALE

-WETLAND ON BOTH SIDES
-OVERALL WIDTH (112') INCLUDES LANDSCAPE CORRIDORS AS CONSTRAINED BY WETLAND PERMIT

NOT TO SCALE

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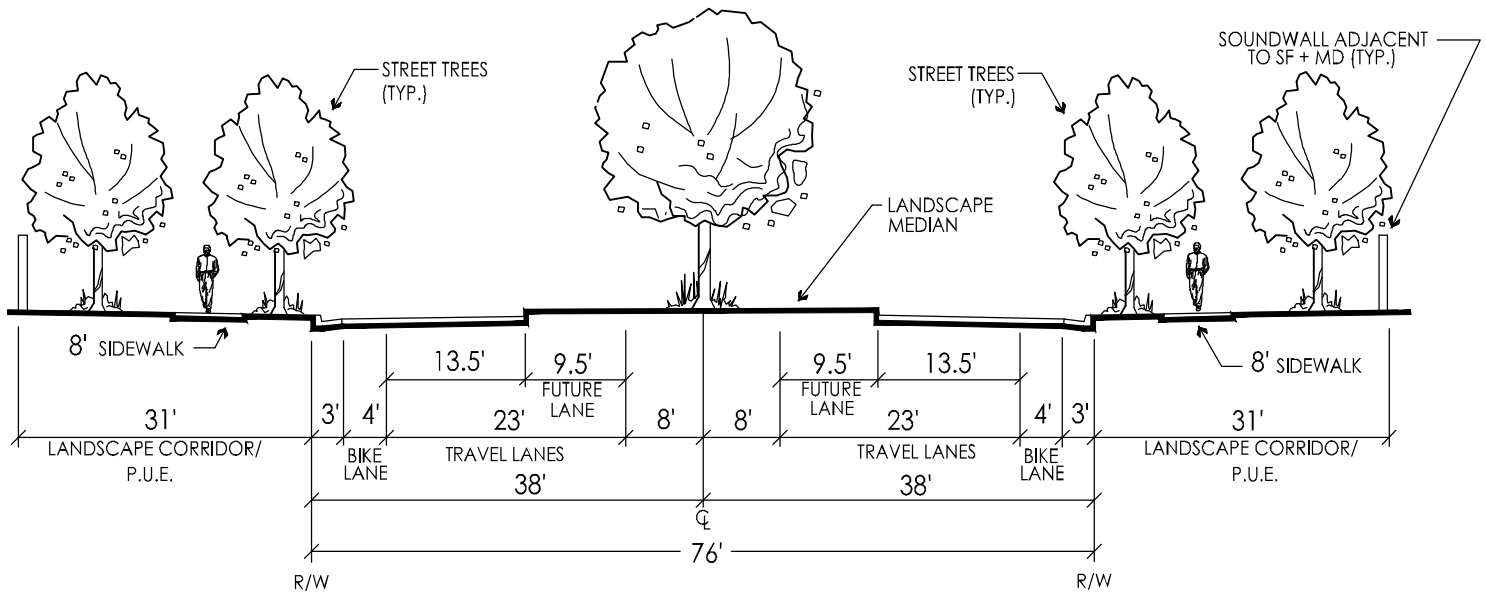
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SECTIONS

RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA

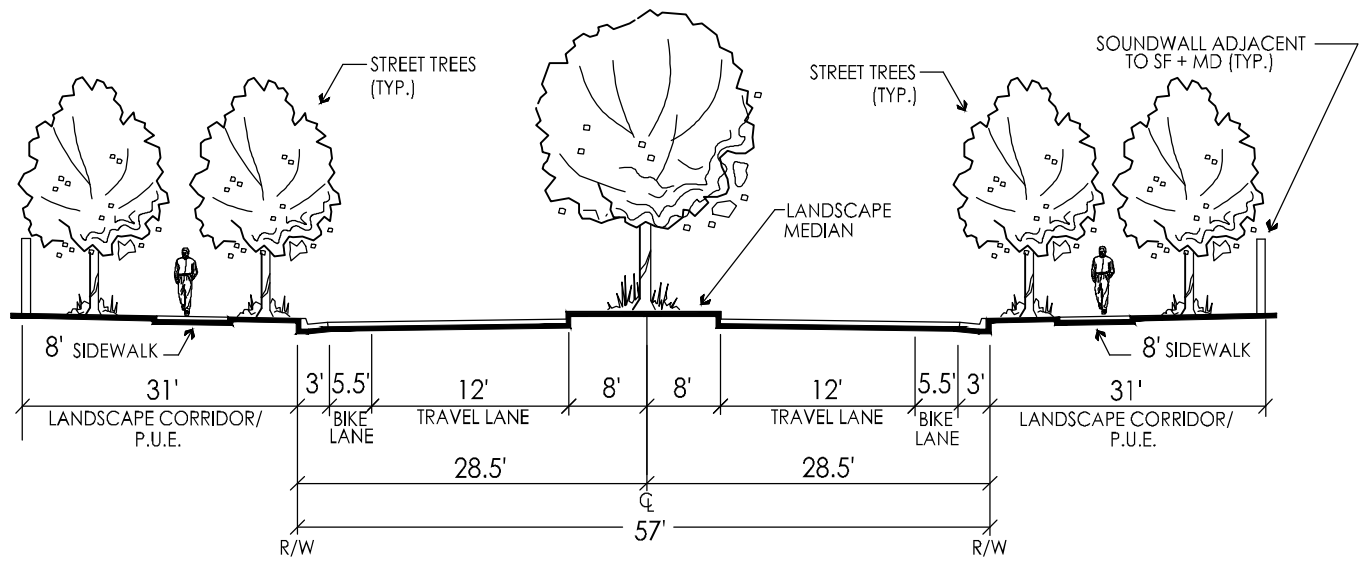
JANUARY 7, 2016



E — 2 LANE SECONDARY ROAD WITH EXPANSION TO 4 LANES

76' STREET SECTION
NOT TO SCALE

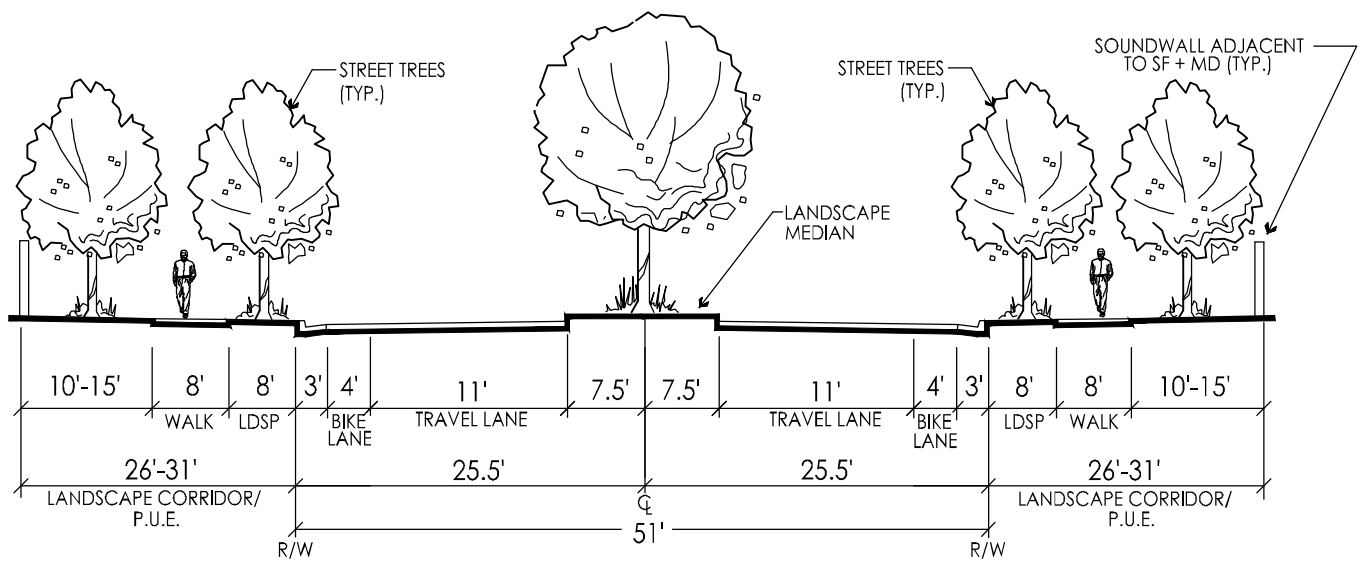
-RIO DEL ORO PARKWAY (NORTH OF THE DRAINAGE PARKWAY)
-CENTENNIAL DRIVE
-VILLAGIO DRIVE FROM WHITE ROCK TO COLLECTOR-B AND FROM DOUGLAS ROAD TO THE MORRISON CREEK BRIDGE



F1 — 2 LANE SPECIAL ACCESS COLLECTOR

57' STREET SECTION
NOT TO SCALE

-CENTRAL PORTION OF VILLAGIO DRIVE



F2 — RESIDENTIAL COLLECTOR WITH MEDIAN

51' STREET SECTION
NOT TO SCALE

-COLLECTOR B

NOT TO SCALE

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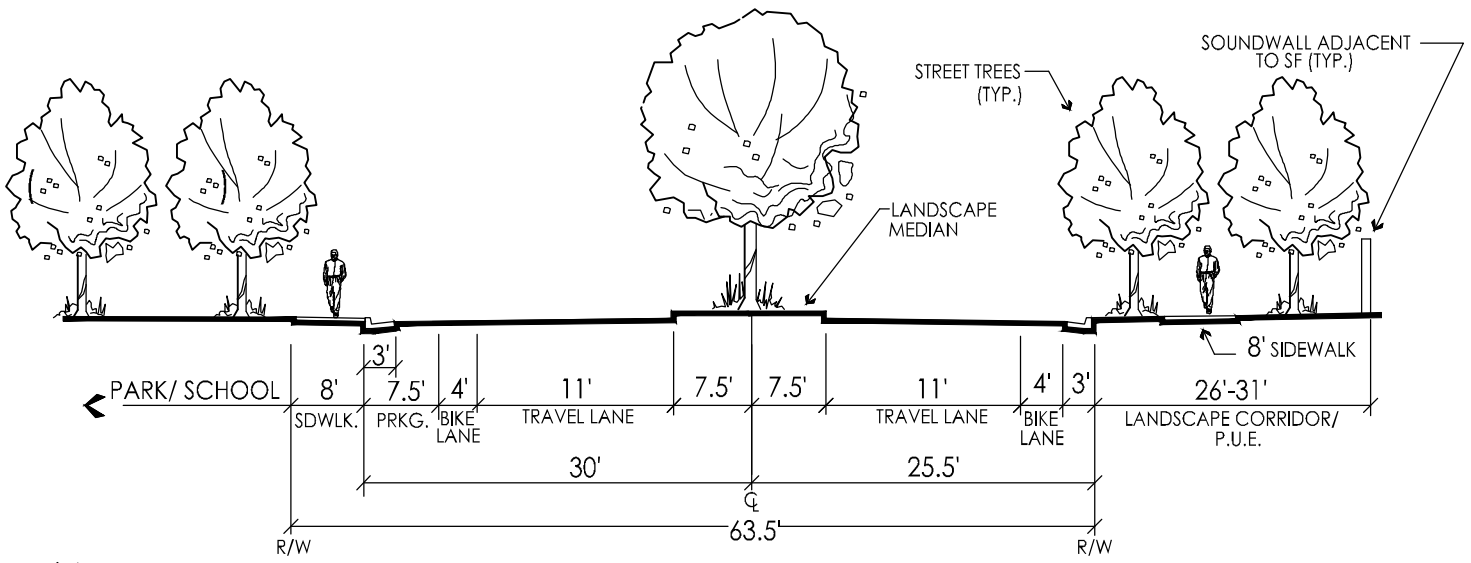
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SECTIONS

RIO DEL ORO

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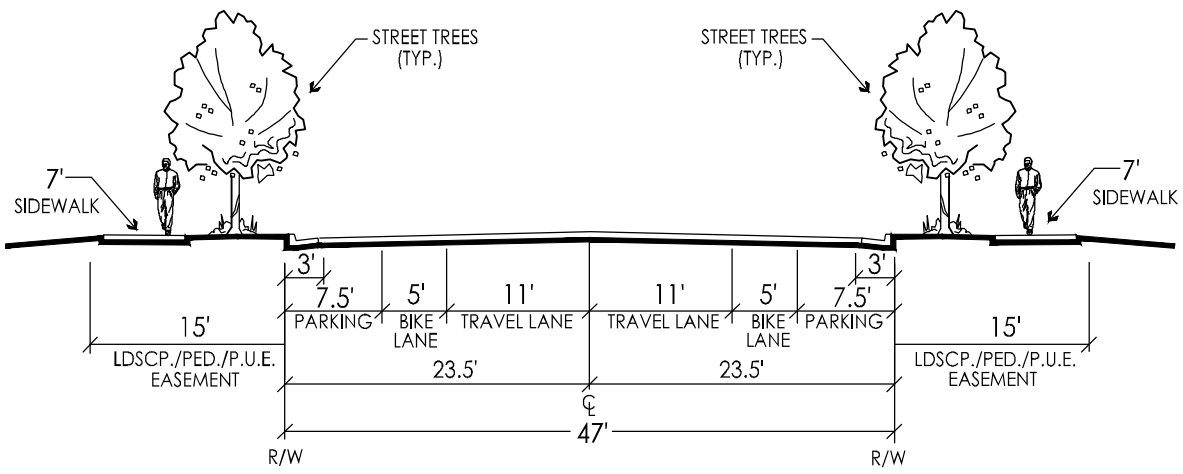
JANUARY 7, 2016



F-3 RESIDENTIAL COLLECTOR

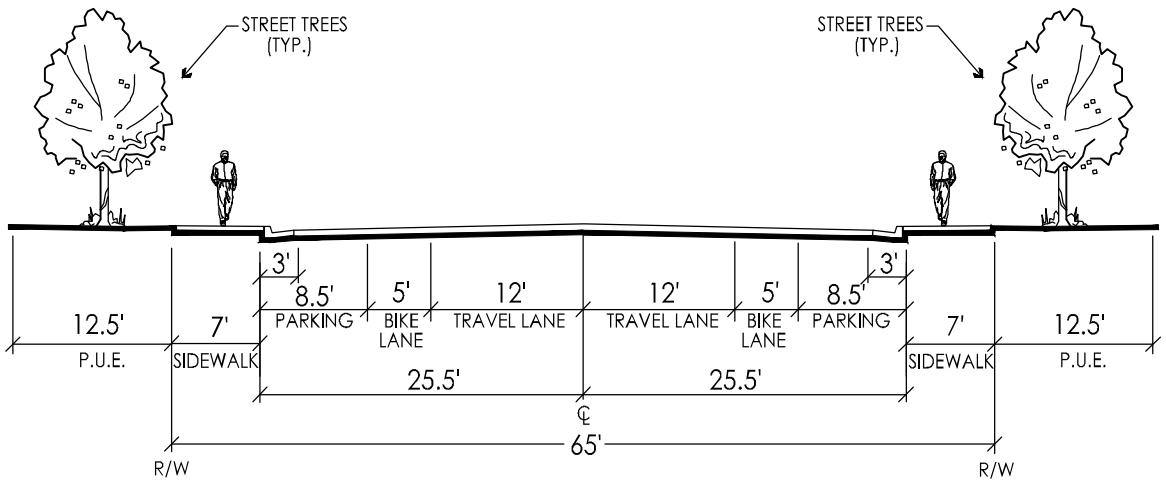
63.5' STREET SECTION
NOT TO SCALE

-COLLECTOR B, ADJACENT TO PARK AND SCHOOL
-PARKING ADJACENT TO PARK AND SCHOOL



G COMMERCIAL/BUSINESS PARK COLLECTOR

47' STREET SECTION
NOT TO SCALE



H INDUSTRIAL PARK COLLECTOR

65' STREET SECTION
NOT TO SCALE

NOT TO SCALE

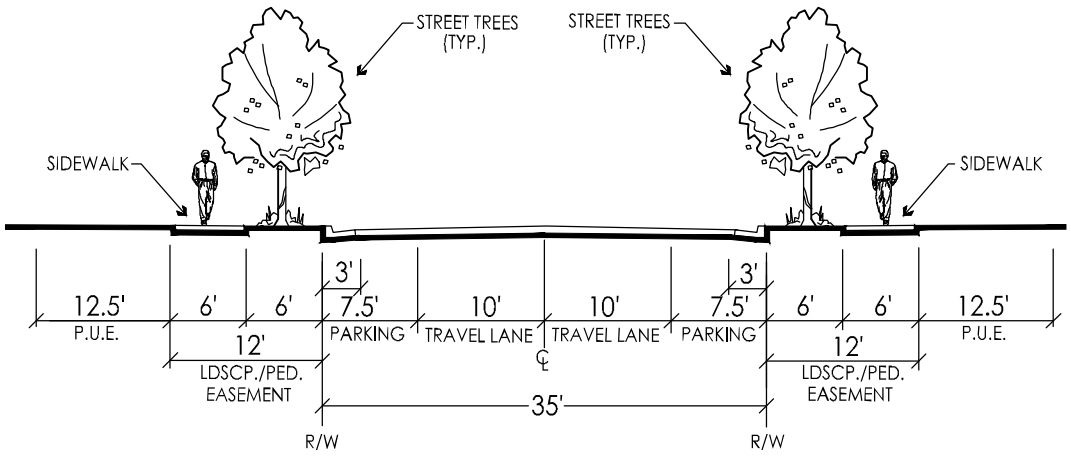
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SECTIONS

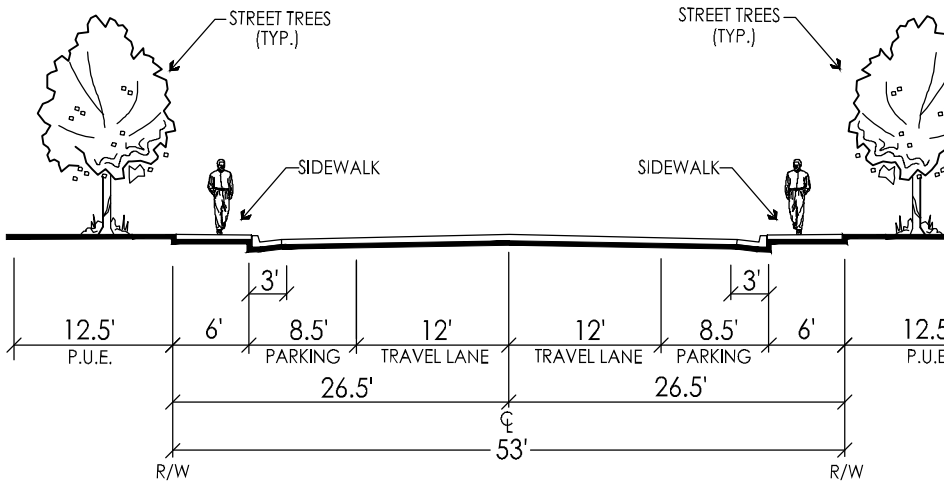
RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA
JANUARY 7, 2016



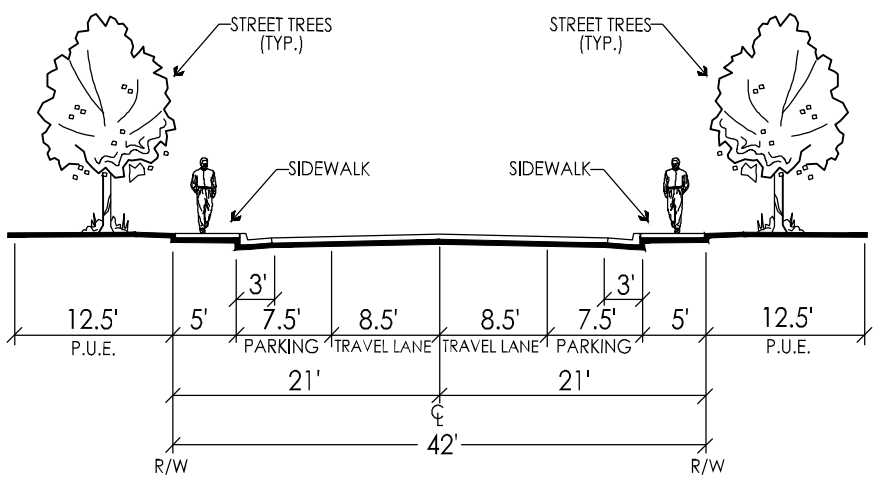
I COMMERCIAL/BUSINESS PARK LOCAL STREET

35' STREET SECTION
NOT TO SCALE



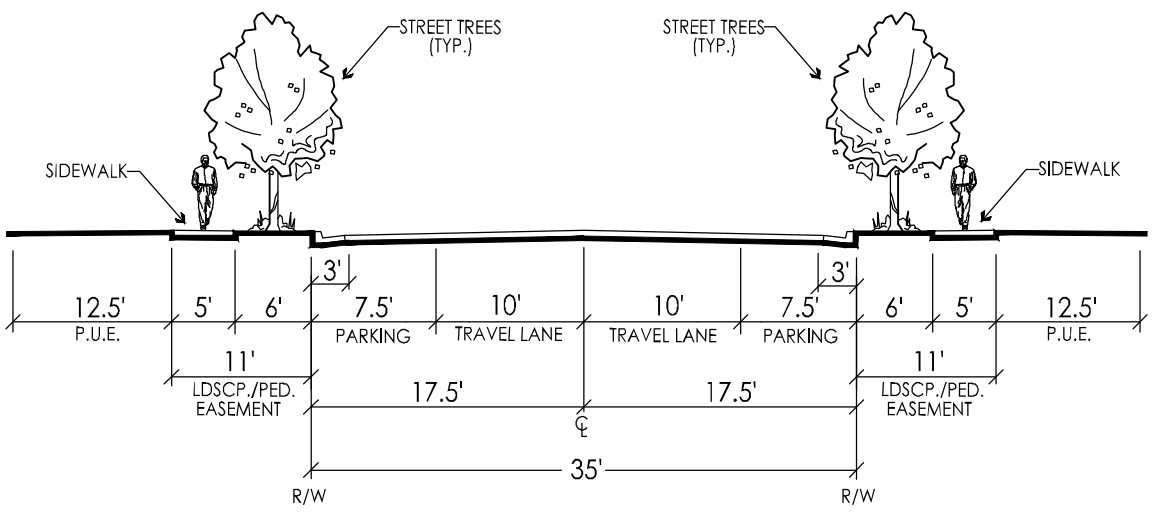
J INDUSTRIAL LOCAL STREET

53' STREET SECTION
NOT TO SCALE



K MINOR RESIDENTIAL WITH ATTACHED WALK

42' STREET SECTION
NOT TO SCALE



L PRIMARY RESIDENTIAL WITH PARKING

35' STREET SECTION
NOT TO SCALE

NOT TO SCALE

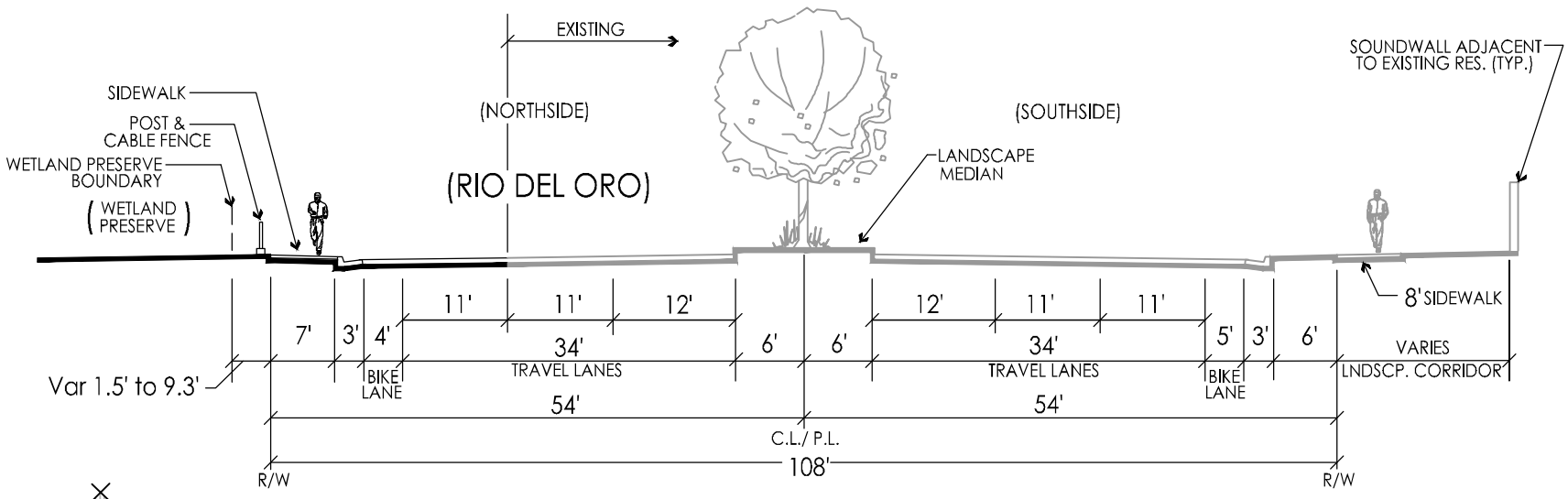
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SECTIONS

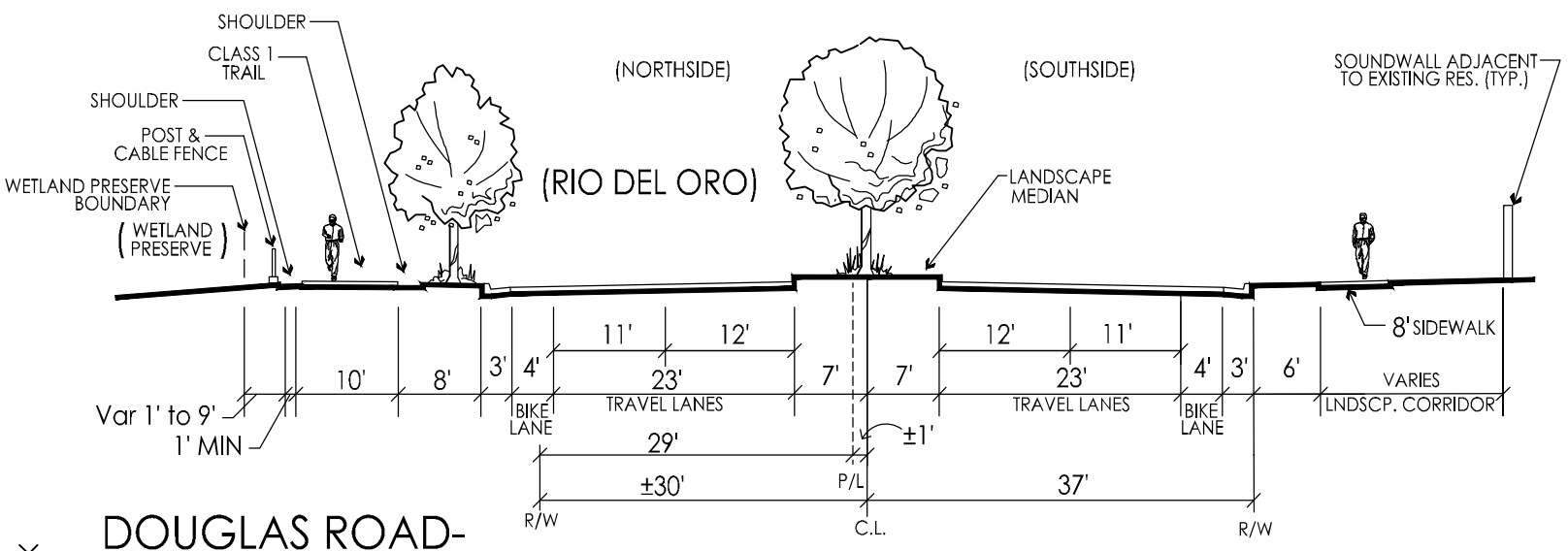
RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA
JANUARY 7, 2016



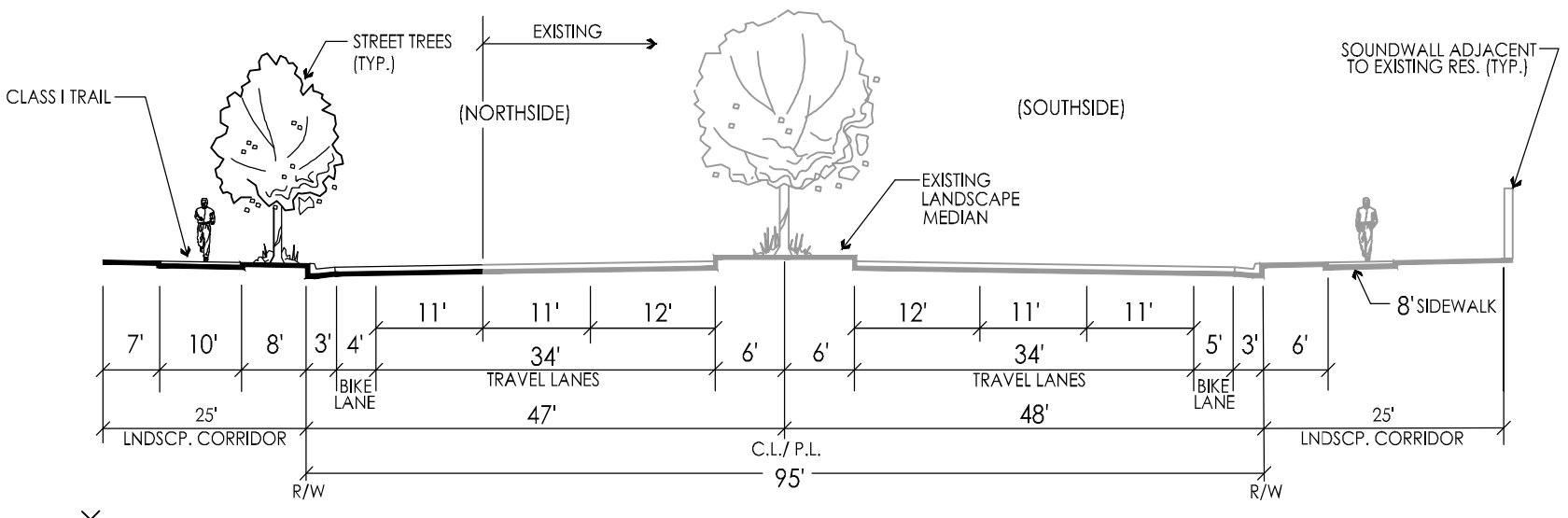
DOUGLAS ROAD-WEST OF RANCHO CORDOVA PARKWAY

108' STREET SECTION
NOT TO SCALE



DOUGLAS ROAD-BETWEEN RANCHO CORDOVA PARKWAY & AMERICANOS BOULEVARD

±67' STREET SECTION
NOT TO SCALE



DOUGLAS ROAD-WEST OF WETLAND PRESERVE

95' STREET SECTION
NOT TO SCALE

NOT TO SCALE

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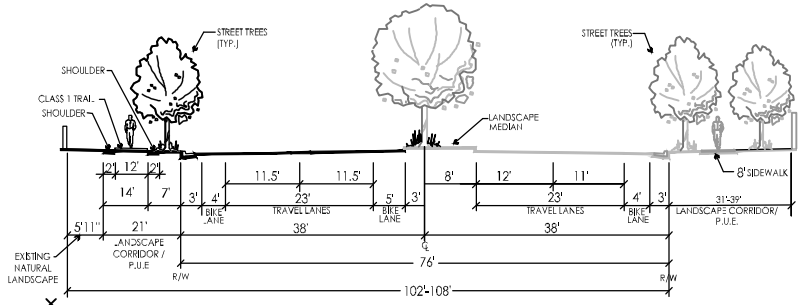
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TYPICAL 4-LANE CONSTRUCTION PHASING OPTIONS

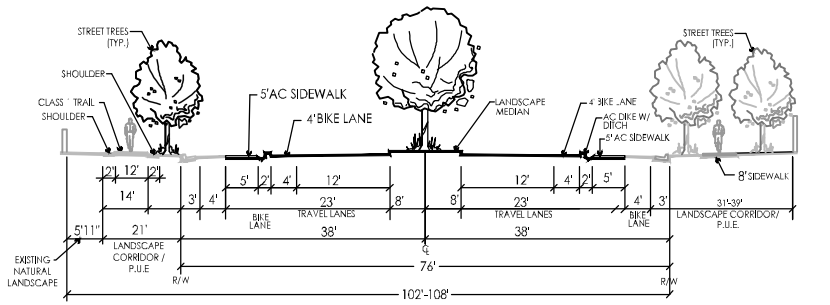
RIO DEL ORO

CITY OF RANCHO CORDOVA CALIFORNIA

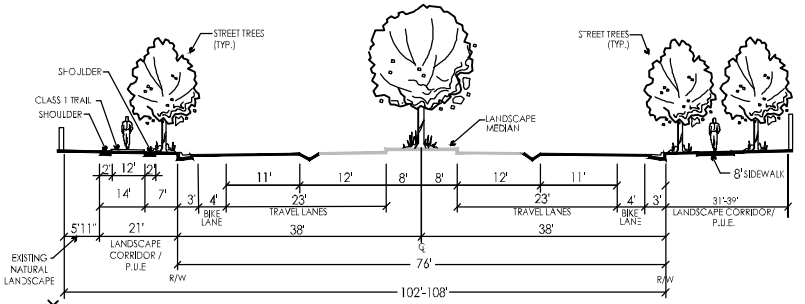
JANUARY, 2016



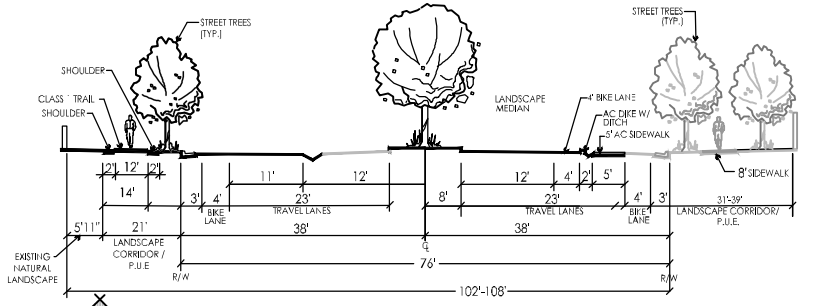
A 4 LANE MAJOR ARTERIAL
76' STREET SECTION
NOT TO SCALE



B 4 LANE MAJOR ARTERIAL
76' STREET SECTION
NOT TO SCALE



C AMERICANOS BOULEVARD - SPECIAL SECTION
76' STREET SECTION
NOT TO SCALE



D 4 LANE MAJOR ARTERIAL
76' STREET SECTION
NOT TO SCALE

Exhibit B–12
APPENDIX H: INFRASTRUCTURE PHASING
Rio Del Oro Finance Plan

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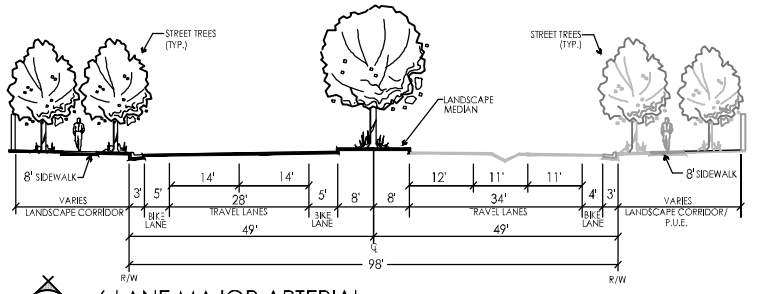
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TYPICAL 6-LANE CONSTRUCTION PHASING OPTIONS

RIO DEL ORO

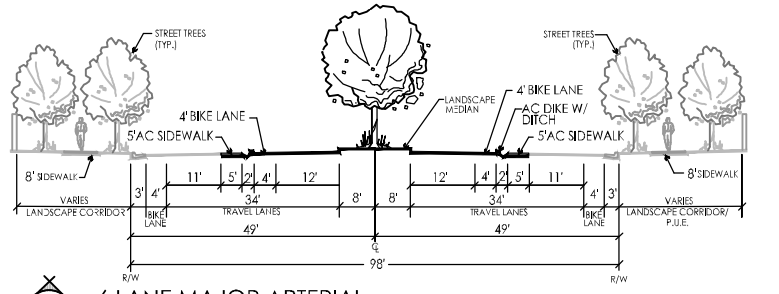
CITY OF RANCHO CORDOVA CALIFORNIA

JANUARY, 2016



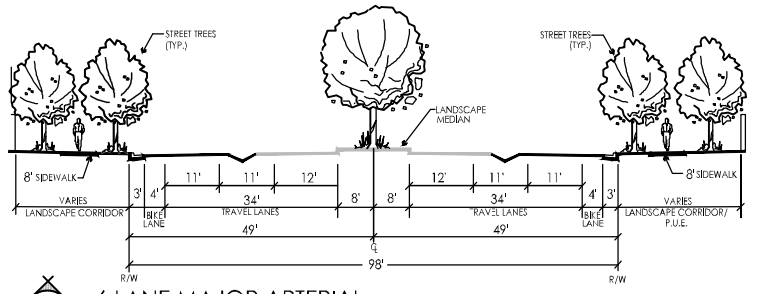
A 6 LANE MAJOR ARTERIAL

98' STREET SECTION
NOT TO SCALE



B 6 LANE MAJOR ARTERIAL

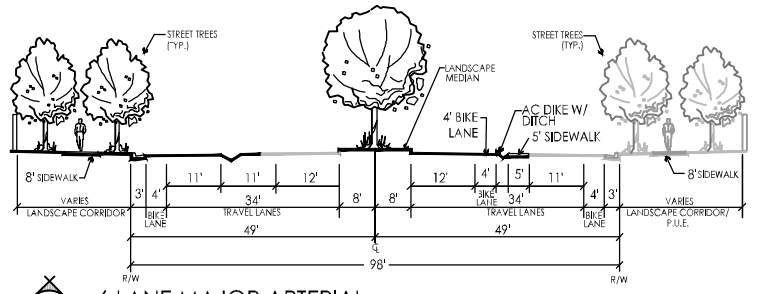
98' STREET SECTION
NOT TO SCALE



C 6 LANE MAJOR ARTERIAL

98' STREET SECTION
NOT TO SCALE

NOTE: INTERIM CONDITION WITH WIDENED MEDIAN AND LANDSCAPING NOT SHOWN.



D 6 LANE MAJOR ARTERIAL

98' STREET SECTION
NOT TO SCALE

Exhibit B–13
APPENDIX H: INFRASTRUCTURE PHASING
Rio Del Oro Finance Plan

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Table D.2-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro Drainage System Costs

DRAIN COST BY PHASE	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
Phase 1				
12" Storm Drain	83	LF	$ 77.00	$6,391
36" Storm Drain	1,010	LF	$ 135.00	$136,350
42" Storm Drain	691	LF	$ 205.00	$141,655
72" Storm Drain	429	LF	$ 455.00	$195,195
Manhole	4	EA	$ 15,700.00	$62,800
36" Culvert Headwall/Endwa	6	EA	$ 22,150.00	$132,900
42" Culvert Headwall/Endwa	3	EA	$ 25,500.00	$76,500
72" Culvert Headwall/Endwa	4	EA	$ 44,800.00	$179,200
Caltrans Class III Rip Rap	9,600	Ton	$ 64.00	$614,400
West Channel Excavation	28,000	CY	$ 3.15	$88,200
South Channel Excavation	164,500	CY	$ 3.15	$518,175
Detention Basin Excavation	394,600	CY	$ 3.15	$1,242,990
Access Road 3"AC/6"AB	31,102	SF	$ 3.25	$101,082
Access Ramp 6"PCC/4"AB	9,731	SF	$ 20.75	$201,918
Post & Cable Fence 3'	2,099	LF	$ 21.00	$44,079
Erosion Control/Hydroseed Channels/Basin	12.2	AC	$ 4,000.00	$48,800
S/T				$3,790,635
Contingency (15%)				$568,595
Engineering (20%)				$758,127
Phase 1 Total				**$5,117,357**
Phase 2				
42" Storm Drain	2,830	LF	$ 175.00	$495,250
48" Storm Drain	1,625	LF	$193	$313,625
60" Storm Drain	1,990	LF	$260	$517,400
Manhole	17	EA	$12,000	$204,000
Channel Improvements	3,510	LF	$250	$877,500
Detention Basin	25	AC	$150,235	$3,755,864
Pump Station	33	CFS	$138,708	$4,577,364
S/T				$10,741,003
Contingency (15%)				$1,611,150
Engineering (20%)				$2,148,201
Phase 2 Total				**$14,500,354**
Phase 3				
30" Storm Drain	1,835	LF	$102	$187,170
36" Storm Drain	930	LF	$135	$125,550
54" Storm Drain	2,430	LF	$235	$571,050
60" Storm Drain	2,610	LF	$260	$678,600
72" Storm Drain	1,265	LF	$ 345.00	$436,425
Manhole	17	LF	$12,000	$204,000
Channel Improvements	4,810	LF	$250	$1,202,500
S/T				$3,405,295
Contingency (15%)				$510,794
Engineering (20%)				$681,059
Phase 3 Total				**$4,597,148**
Phase 4				
36" Storm Drain	1,065	LF	$ 125.00	$133,125
42" Storm Drain	1,810	LF	$ 175.00	$316,750
54" Storm Drain	1,375	LF	$235	$323,125
Manhole	13	EA	$12,000	$156,000
Detention Basin	6	AC	$150,235	$901,407
Pump Station	5	CFS	$138,708	$693,540
Channel Improvements	6,500	LF	$250	$1,625,000
S/T				$4,148,947
Contingency (15%)				$622,342
Engineering (20%)				$829,789
Phase 4 Total				**$5,601,079**
Phase 5				
42" Storm Drain	4,010	LF	$ 175.00	$701,750
48" Storm Drain	1,020	LF	$193	$196,860
Manhole	16	EA	$12,000	$192,000
Channel Improvements	1,750	LF	$250	$437,500
S/T				$1,528,110
Contingency (15%)				$229,217
Engineering (20%)				$305,622
Phase 5 Total				**$2,062,949**
TOTAL PHASES 1-5				**$31,878,887**

Table D.2-2
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Drainage System Credits/Reimbursment

DRAIN CR/RE BY PHASE	QUANTITY	UNIT	UNIT PRICE	TOTAL CR/RE
Phase 1				
12" Storm Drain	83	LF	$ 55.82	$4,633
36" Storm Drain	1,010	LF	$ 127.92	$129,199
42" Storm Drain	691	LF	$ 162.81	$112,502
72" Storm Drain	429	LF	$ 285.00	$122,265
Manhole	4	EA	$ 9,245.00	$36,980
36" Culvert Headwall/Endwa	6	EA	$ 12,264.00	$73,584
42" Culvert Headwall/Endwa	3	EA	$ 18,834.00	$56,502
72" Culvert Headwall/Endwa	4	EA	$ 32,850.00	$131,400
Caltrans Class III Rip Rap	9,600	Ton	$66.29	$636,384
West Channel Excavation	28,000	CY	$ 4.54	$127,120
South Channel Excavation	164,500	CY	$ 4.54	$746,830
Detention Basin	394,600	CY	$ 4.54	$1,791,484
Access Road 3"AC/6"AB	31,102	SF	$ 3.75	$116,633
Access Ramp 6"PCC/4"AB	9,731	SF	$ 24.00	$233,544
Post & Cable Fence 3'	2,099	LF	$18.61	$39,062
Erosion Control/Hydroseed Channels/Basin	12.2	AC	$3,011.97	$36,746
S/T				$4,394,868
Contingency (15%)				$659,230
Engineering (20%)				$878,974
Phase 1 Total				**$5,933,072**
Phase 2				
42" Storm Drain	2,830	LF	$ 126.06	$356,750
48" Storm Drain	1,625	LF	$ 145.12	$235,820
60" Storm Drain	1,990	LF	$ 171.73	$341,743
Manhole	17	EA	$ 6,675.66	$113,486
Channel Improvements	3,510	LF	$ 250.00	$877,500
Detention Basin	25	AC	$ 150,234.56	$3,755,864
Pump Station	33	CFS	$ -	$0
S/T				$5,681,163
Contingency (15%)				$852,174
Engineering (20%)				$1,136,233
Phase 2 Total				**$7,669,570**
Phase 3				
30" Storm Drain	1,835	LF	$ 75.30	$138,176
36" Storm Drain	930	LF	$ 92.10	$85,653
54" Storm Drain	2,430	LF	$ 154.09	$374,439
60" Storm Drain	2,610	LF	$ 171.73	$448,215
72" Storm Drain	1,265	LF	$ 253.34	$320,475
Manhole	17	LF	$ 6,675.66	$113,486
Channel Improvements	4,810	LF	$ 250.00	$1,202,500
S/T				$2,682,944
Contingency (15%)				$402,442
Engineering (20%)				$536,589
Phase 3 Total				**$3,621,974**
Phase 4				
36" Storm Drain	1,065	LF	$ 92.10	$98,087
42" Storm Drain	1,810	LF	$ 126.06	$228,169
54" Storm Drain	1,375	LF	$ 154.09	$211,874
Manhole	13	EA	$ 6,675.66	$86,784
Detention Basin	6	AC	$ 150,234.56	$901,407
Pump Station	5	CFS	$ -	$0
Channel Improvements	6,500	LF	$ 250.00	$1,625,000
S/T				$3,151,320

Contingency (15%)				$472,698
Engineering (20%)				$630,264
Phase 4 Total				**$4,254,282**
Phase 5				
42" Storm Drain	4,010	LF	$ 126.06	$505,501
48" Storm Drain	1,020	LF	$ 145.12	$148,022
Manhole	16	EA	$ 6,675.66	$106,811
Channel Improvements	1,750	LF	$ 250.00	$437,500
S/T				$1,197,834
Contingency (15%)				$179,675
Engineering (20%)				$239,567
Phase 5 Total				**$1,617,075**
TOTAL PHASES 1-5				**$23,095,973**

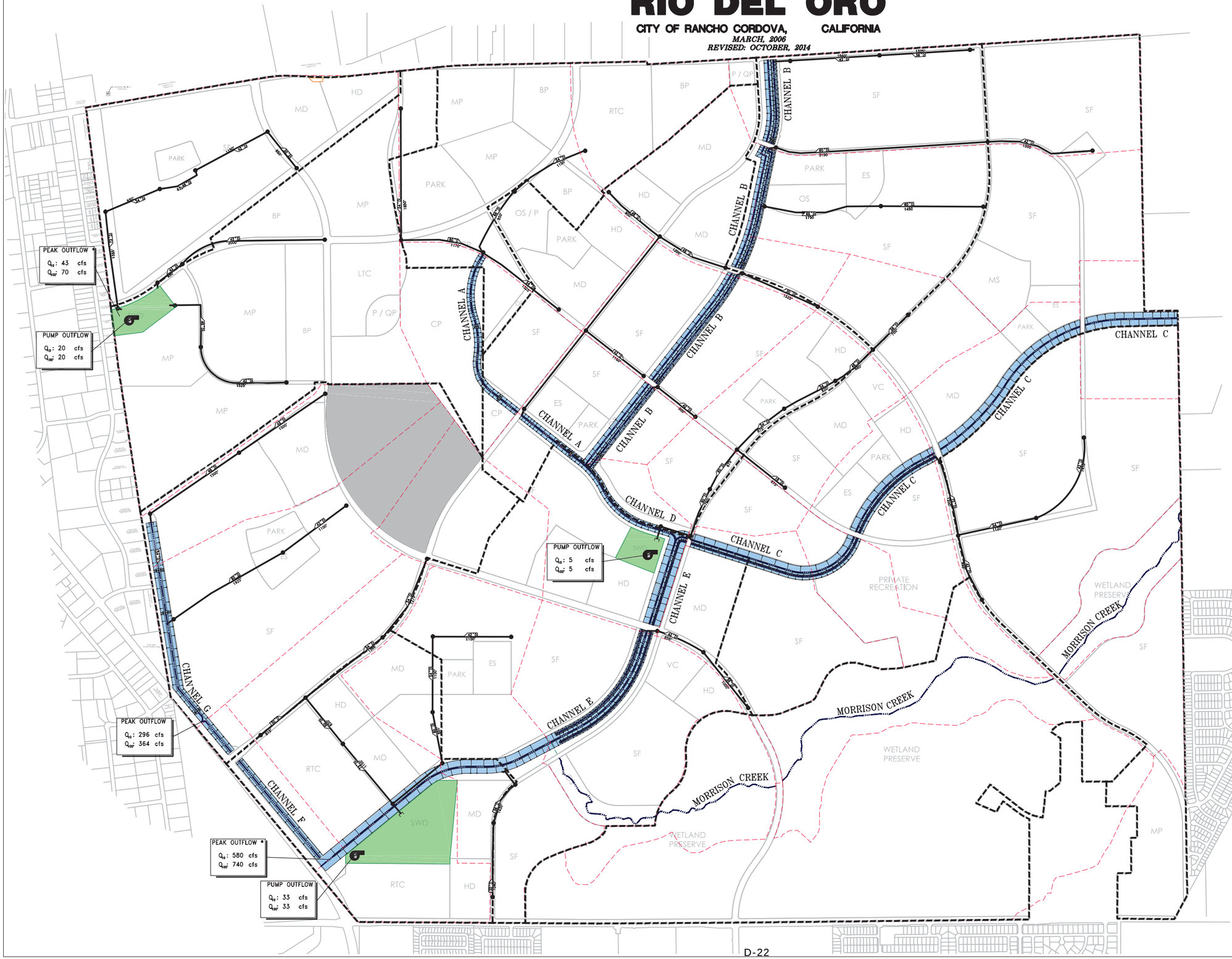
MAP D.2-1

PRELIMINARY ONSITE DRAINAGE SYSTEM

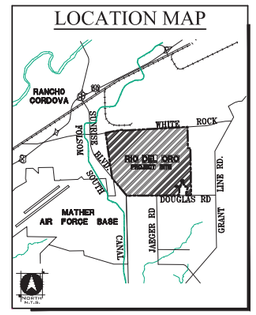
RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA

MARCH, 2006
REVISED: OCTOBER, 2014



LOCATION MAP



LEGEND

- PROPERTY/PHASE BOUNDARY
- PROPOSED TRUNK DRAIN PIPE W/ MANHOLE
- PROPOSED ONSITE SUB-WATERSHED
- PROPOSED DRAIN PIPE SIZE & DIRECTION
- 1360' PIPE LENGTH
- DRAINAGE CHANNELS
- STORMWATER DETENTION BASIN LOCATION
- PUMP STATION

NOTES:

- 10 YR NODAL PEAK FLOWS APPROXIMATE
- TRUNK LINE LOCATIONS APPROXIMATE
- LAND USE REVISED BY WOOD RODGERS ON 9/24/2014
- * PEAK OUTFLOW AT NORTHWEST BASIN DOES NOT INCLUDE UPSTREAM OFFSITE FLOW.
- * PEAK OUTFLOW AT SOUTHWEST BASIN INCLUDES UPSTREAM OFFSITE FLOW. FLOW LEAVING RIO DEL ORO BORDER IS SPLIT TO ACCOMODATE BOTH DOWNSTREAM OVERCHUTE CAPACITIES.

CHANNEL LENGTHS

CHANNEL A	3,500 LF
CHANNEL B	6,300 LF
CHANNEL C	8,300 LF
CHANNEL D	1,730 LF
CHANNEL E	7,100 LF
CHANNEL F	1,770 LF
CHANNEL G	3,400 LF
MORRISON CREEK	11,800 LF
TOTAL	43,900 LF

600' 300' 0 600' 1200'

SCALE: 1" = 600'

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J:\1000-s\1032-RioDelOro\RioDelOro-DA\Civil\Finance Plan\2014_Update\2014 Updated Exhibits\MAPC-1_ONSITE_DRAINAGE.dwg 10/16/14 12:27pm cdavis

Table D.3-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro Water System Costs

Water System Costs

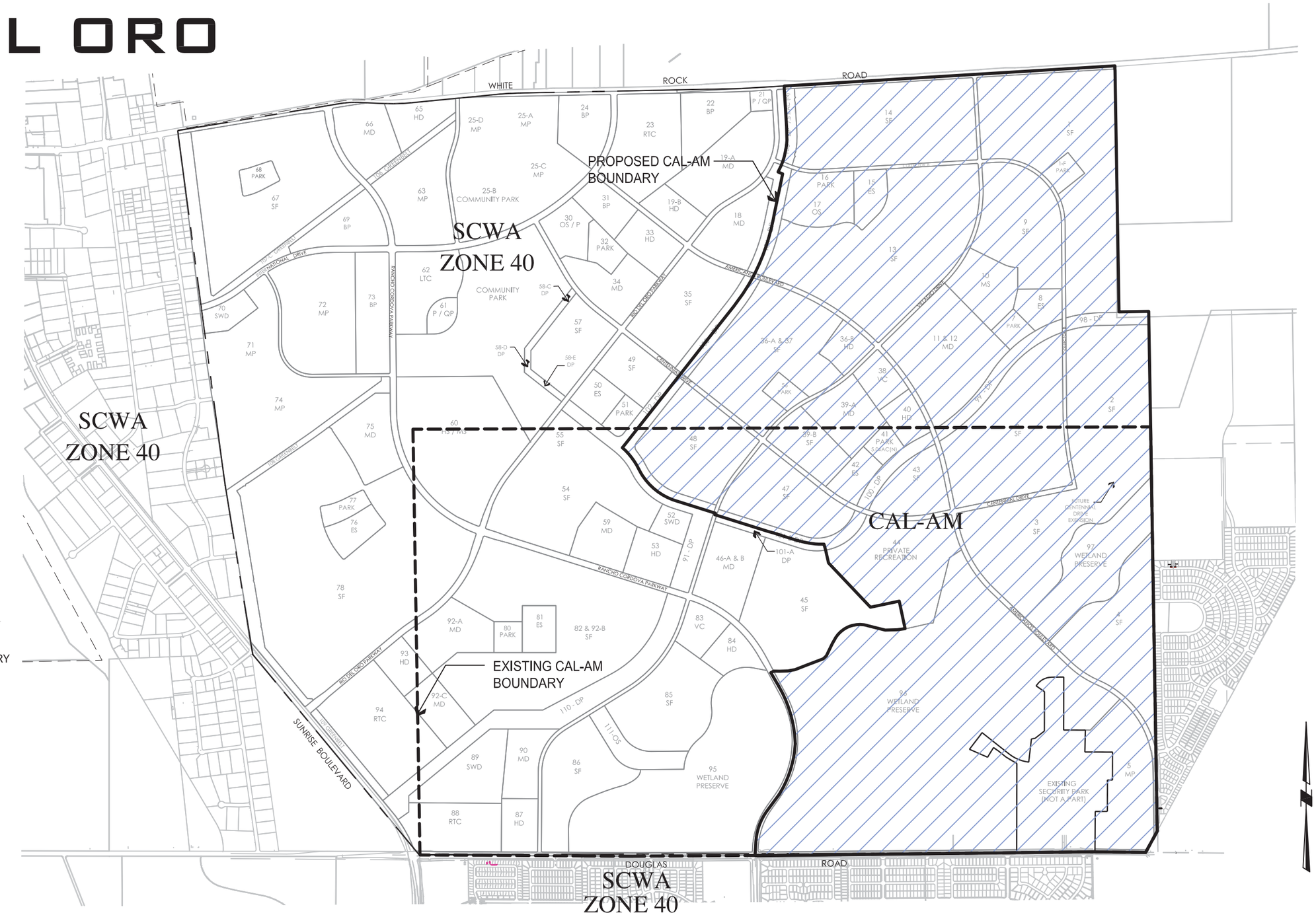
WATER COST BY PHASE	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
Phase 1				
24" Water	1465	LF	$238	$349,110
24" Butterfly Valve	1	EA	$12,793	$12,793
S/T				$361,903
Contingency (15%)				$54,285
Engineering (20%)				$72,381
Phase 1 Total				**$488,568**
Phase 2				
24" Water	9490	LF	$238	$2,261,467
24" Butterfly Valve	5	EA	$12,793	$63,965
1.5 MG Water Tank	1	EA	$1,333,425	$1,333,425
Booster Pump Station	1	EA	$1,244,500	$1,244,500
S/T				$4,903,357
Contingency (15%)				$735,504
Engineering (20%)				$980,671
Phse 2 Total				**$6,619,532**
Phase 3				
12" Water	2080	LF	$118.60	$246,688
12" Butterfly Valve	1	EA	$4,309	$4,309
S/T				$250,997
Contingency (15%)				$37,650
Engineering (20%)				$50,199
Phase 3 Total				**$338,846**
Phase 4				
12" Water	4395	LF	$118.60	$521,247
24" Water	7600	LF	$238.30	$1,811,080
12" Butterfly Valve	2	EA	$4,309	$8,618
24" Butterfly Valve	2	EA	$12,793	$25,586
S/T				$2,366,531
Contingency (15%)				$354,980
Engineering (20%)				$473,306
Phase 4 Total				**$3,194,817**
Phase 5				
12" Water	1075	LF	$118.60	$127,495
24" Water	3090	LF	$238.30	$736,347
12" Butterfly Valve	2	EA	$4,309	$8,618
24" Butterfly Valve	2	EA	$12,793	$25,586
S/T				$898,046
Contingency (15%)				$134,707
Engineering (20%)				$179,609
Phase 5 Total				**$1,212,362**
TOTAL PHASES 1-5				**$11,854,125**

Table D.3-2
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Water System Credits/Reimbursement

WATER CR/RE BY PHASE	QUANTITY	UNIT	UNIT PRICE	TOTAL CR/RE
Phase 1				
24" Water	1465	LF	$238.30	$349,110
24" Butterfly Valve	1	EA	$12,793	$12,793
S/T				$361,903
Contingency (15%)				$54,285
Engineering (20%)				$72,381
Phase 1 Total				**$488,568**
Phase 2				
24" Water	9490	LF	$238.30	$2,261,467
24" Butterfly Valve	5	EA	$12,793	$63,965
1.5 MG Water Tank	1	EA	$1,333,425	$1,333,425
Booster Pump Station	1	EA	$1,244,500	$1,244,500
S/T				$4,903,357
Contingency (15%)				$735,504
Engineering (20%)				$980,671
Phase 2Total				**$6,619,532**
Phase 3				
12" Water	2080	LF	$ 118.60	$246,688
12" Butterfly Valve	1	EA	$ 4,309	$4,309
S/T				$250,997
Contingency (15%)				$37,650
Engineering (20%)				$50,199
Phase 3 Total				**$338,846**
Phase 4				
12" Water	4395	LF	$ 118.60	$521,247
24" Water	7600	LF	$ 238.30	$1,811,080
12" Butterfly Valve	2	EA	$ 4,309.00	$8,618
24" Butterfly Valve	2	EA	$12,793	$25,586
S/T				$2,366,531
Contingency (15%)				$354,980
Engineering (20%)				$473,306
Phase 4 Total				**$3,194,817**
Phase 5				
12" Water	1075	LF	$ 118.60	$127,495
24" Water	3090	LF	$238.30	$736,347
12" Butterfly Valve	2	EA	$ 4,309	$8,618
24" Butterfly Valve	2	EA	$12,793	$25,586
S/T				$898,046
Contingency (15%)				$134,707
Engineering (20%)				$179,609
Phase 5 Total				**$1,212,362**
TOTAL PHASES 1-5				**$11,854,125**

WATER SERVICE BOUNDARIES

RIO DEL ORO



LEGEND

- EXISTING CAL-AM SERVICE BOUNDARY
- PROPOSED CAL-AM SERVICE BOUNDARY

PROPOSED WATER TRANSMISSION LAYOUT

RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA
DECEMBER 2014

PROPOSED WHITE ROCK ROAD STORAGE TANKS AND PUMP STATION

EMERGENCY BOOSTER PUMP INTERCONNECTION WITH CAL–AM AND SCWA

EMERGENCY VALVE (TYP.)

Wetlands

PROPOSED CAL–AM STORAGE TANKS AND BOOSTER PUMP STATION

LEGEND

- DEMAND JUNCTION
- EMERGENCY VALVE
- 12 INCH DISTRIBUTION MAIN
- 16–18 INCH TRANSMISSION MAIN
- 24 INCH TRANSMISSION MAIN
- 36 INCH AND GREATER TRANSMISSION MAIN
- OFFSITE DISTRIBUTION OR TRANSMISSION MAIN
- RIO DEL ORO PROJECT BOUNDARY
- CAL–AM PROPOSED SERVICE AREA
- RIO DEL ORO PHASING BOUNDARY
- RIO DEL ORO OWNERSHIP BOUNDARY

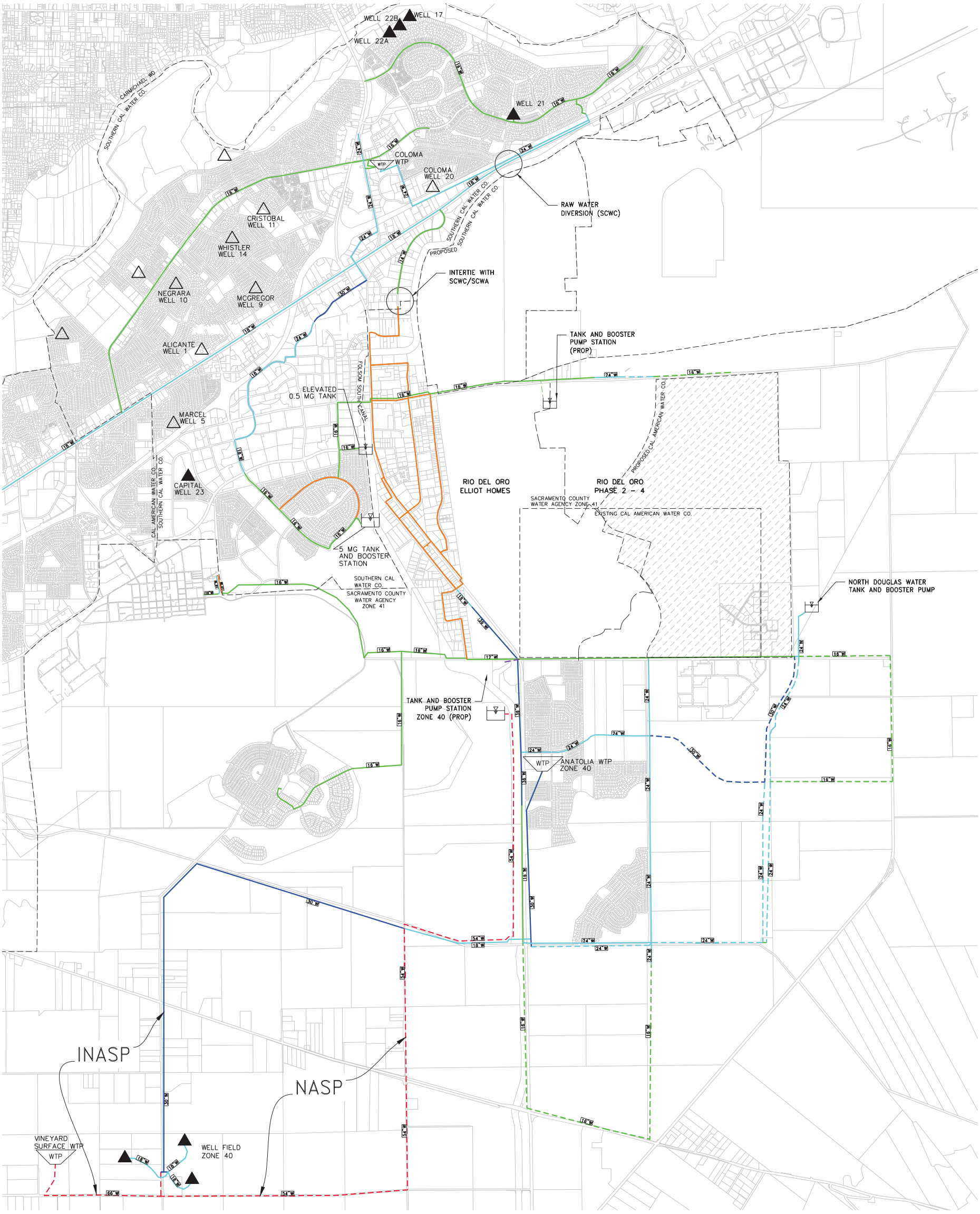
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RIO DEL ORO OFF-SITE WATER IMPROVEMENTS

RANCHO CORDOVA, CALIFORNIA
DECEMBER, 2014



LEGEND:

- EXISTING DISTRIBUTION LINE
- EXIST. TRANSMISSION LINE (12" – 16")
- EXIST. TRANSMISSION LINE (18" – 24")
- EXIST. TRANSMISSION LINE (30" – 36")
- EXIST. TRANSMISSION LINE (42" – 48")
- EXIST. TRANSMISSION LINE (54" – 60")
- FUTURE TRANSMISSION LINE (14" – 16")
- FUTURE TRANSMISSION LINE (18" – 24")
- FUTURE TRANSMISSION LINE (30" – 36")
- FUTURE TRANSMISSION LINE (42" – 48")
- FUTURE TRANSMISSION LINE (54" – 60")
- (F): FUTURE BUILDOUT SCWA SYSTEM NOT REQUIRED FOR RDO
- (P): PROPOSED PHASE 1
- TANK AND/OR BOOSTER PUMP STATION
- WTP: WATER TREATMENT PLANT
- WELL
- WELL – NO LONGER IN SERVICE
- "INASP" INTERIM NORTH AREA SERVICE PIPELINE
- "NASP" NORTH AREA SERVICE PIPELINE

NORTH
0 4000
2000 8000

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\\SACFILE01\Jobs\1000-s\1032-RioDelOro\RioDelOro-OA\Civil\Finance Plan\2014_Update\2014_Updated_Exhibits\MAPB-2_OFFSITE_WATER.dwg 12/18/14 1:33pm cdavis

Table D.4-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro Sewer System Cost

Sewer System Costs

SEWER COST BY PHASE	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
Phase 1				
12" Trunk Sewer	4395	LF	$ 90.00	$395,550
Manhole	6	EA	$ 11,112.00	$66,672
S/T				$462,222
Contingency (15%)				$69,333
Engineering (20%)				$92,444
Total				**$624,000**
Sewer Lift Station (S-70)	1	EA	$ 546,000.00	$546,000
S/T				$546,000
Contingency (15%)				$81,900
Engineering (20%)				$109,200
Total				**$737,100**
Phase 1 Total				**$1,361,100**
Phase 2				
12" Trunk Sewer	865	LF	$ 90.00	$77,850
30" Trunk Sewer	2085	LF	$ 297.00	$619,245
36" Trunk Sewer	2020	LF	$ 321.00	$648,420
Manhole	12	EA	$ 11,112.00	$133,344
S/T				$1,478,859
Contingency (15%)				$221,829
Engineering (20%)				$295,772
TotaL Trunk Sewer				**$1,996,460**
Sewer Lift Station	7.04	MGD	$ 685,000.00	$4,822,400
S/T				$4,822,400
Contingency (15%)				$723,360
Engineering (20%)				$964,480
Total Sewer Lift Station				**$6,510,240**
Phase 2 Total				**$8,506,700**
Phase 3				
12" Trunk Sewer	2515	LF	$ 90.00	$226,350
15" Trunk Sewer	2070	LF	$ 182.00	$376,740
Manhole	10	EA	$ 11,112.00	$111,120
S/T				$714,210
Contingency (15%)				$107,132
Engineering (20%)				$142,842
Phase 3 Total				**$964,184**
Phase 4				
30” Trunk Sewer	4690	LF	$ 297.00	$1,392,930
Manhole	8	EA	$ 11,112.00	$88,896
S/T				$1,481,826
Contingency (15%)				$222,274
Engineering (20%)				$296,365
Phase 4 Total				**$2,000,465**
Phase 5				
36” Trunk Sewer	4210	LF	$ 321.00	$1,351,410
Manhole	9	EA	$ 11,112.00	$100,008
S/T				$1,451,418
Contingency (15%)				$217,713
Engineering (20%)				$290,284
Total Trunk Sewer Pipe				**$1,959,414**

Table D.4-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro Sewer System Cost

Sewer Lift Station	6.56	MGD	$ 685,000.00	$4,493,600
S/T				$4,493,600
Contingency (15%)				$674,040
Engineering (20%)				$898,720
Total Sewer Lift Station				**$6,066,360**
Phase 5 Total				**$8,025,774**

TOTAL PHASES 1-5				**$20,858,222**

INTERIM FACILITIES

SEWER COST BY PHASE	**QUANTITY**	**UNIT**	**UNIT PRICE**	**TOTAL COST**

Phase 2

12” Force Main	15000	LF	$ 214.00	$3,210,000
18” Force Main	15000	LF	$ 303.00	$4,545,000
S/T				$3,210,000
Contingency (15%)				$481,500
Engineering (20%)				$642,000
Phase 2 Total				**$4,333,500**

Phase 3

12" Trunk Sewer	600	LF	$ 90.00	$54,000
18" Trunk Sewer	1870	LF	$ 195.00	$364,650
Manhole	5	LF	$ 11,112.00	$55,560
S/T				$474,210
Contingency (15%)				$71,132
Engineering (20%)				$94,842
Phase 3 Total				**$640,184**

TOTAL INTERIM FACILITIES PHASES 1-5				**$4,973,684**

Table D.4-2
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Sewer System Credits/Reimbursments

SEWER CR/RE BY PHASE	QUANTITY	UNIT	UNIT PRICE	TOTAL CR/RE
Phase 1				
12" Trunk Sewer	4395	LF	$ 90.00	$395,550
Manhole	6	EA	$ 11,112.00	$66,672
S/T				$462,222
Contingency (15%)				$69,333
Engineering (20%)				$92,444
Total				**$624,000**
Sewer Lift Station (S-70)	1	EA	$ 546,000.00	$546,000
S/T				$546,000
Contingency (15%)				$81,900
Engineering (20%)				$109,200
Total				**$737,100**
Phase 1 Total				**$1,361,100**
Phase 2				
12" Trunk Sewer	865	LF	$ 90.00	$77,850
30" Trunk Sewer	2085	LF	$ 297.00	$619,245
36" Trunk Sewer	2020	LF	$ 321.00	$648,420
Manhole	12	EA	$ 11,112.00	$133,344
S/T				$1,478,859
Contingency (15%)				$221,829
Engineering (20%)				$295,772
Total				**$1,996,460**
Sewer Lift Station	7.04	MGD	$ 685,000.00	$4,822,400
S/T				$4,822,400
Contingency (15%)				$723,360
Engineering (20%)				$964,480
Total				**$6,510,240**
Phase 2 Total				**$8,506,700**
Phase 3				
12" Trunk Sewer	2515	LF	$ 90.00	$226,350
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S/T				$714,210
Contingency (15%)				$107,132
Engineering (20%)				$142,842
Phase 3 Total				**$964,184**
Phase 4				
30” Trunk Sewer	4690	LF	$ 297.00	$1,392,930
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S/T				$1,481,826
Contingency (15%)				$222,274
Engineering (20%)				$296,365
Phase 4 Total				**$2,000,465**
Phase 5				
36” Trunk Sewer	4210	LF	$ 321.00	$1,351,410
Manhole	9	EA	$ 11,112.00	$100,008
S/T				$1,451,418
Contingency (15%)				$217,713
Engineering (20%)				$290,284
Total Trunk Sewer Pipe				**$1,959,414**

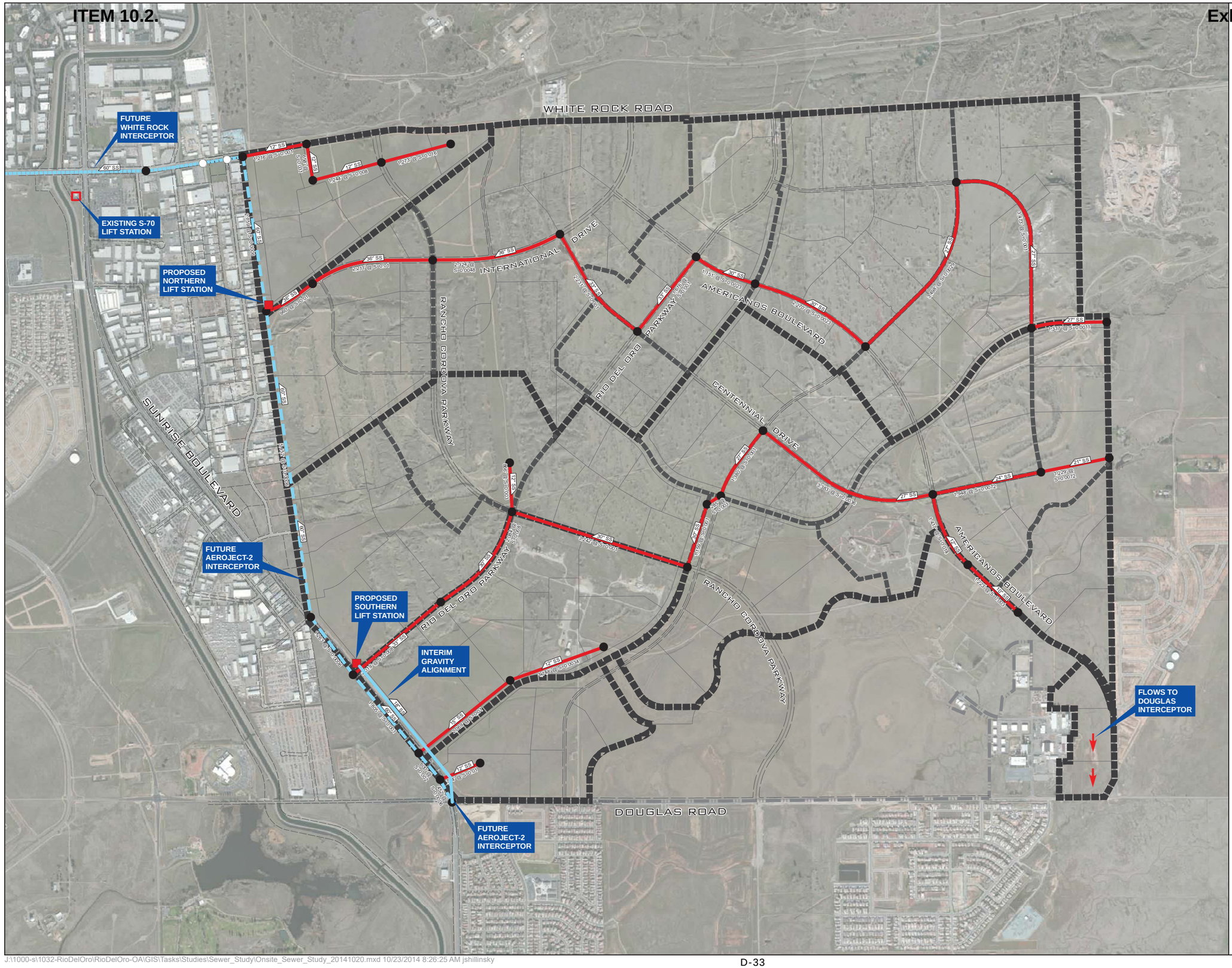
Sewer Lift Station	6.56	MGD	$ 685,000.00	$4,493,600
S/T				$4,493,600
Contingency (15%)				$674,040
Engineering (20%)				$898,720
Total Sewer Lift Station				**$6,066,360**
Phase 5 Total				**$8,025,774**
TOTAL PHASES 1-5				**$20,858,222**

INTERIM FACILITIES

SEWER CR/RE BY PHASE	QUANTITY	UNIT	UNIT PRICE	TOTAL CR/RE
Phase 2				
12” Force Main	15000	LF	$ 214.00	$3,210,000
18” Force Main	15000	LF	$ 303.00	$4,545,000
S/T				$3,210,000
Contingency (15%)				$481,500
Engineering (20%)				$642,000
Total				**$4,333,500**
Phase 3				
12" Trunk Sewer	600	LF	$ 90.00	$54,000
18" Trunk Sewer	1870	LF	$ 195.00	$364,650
Manhole	5	LF	$ 11,112.00	$55,560
S/T				$474,210
Contingency (15%)				$71,132
Engineering (20%)				$94,842
Total				**$640,184**
TOTAL INTERIM FACILITIES PHASES 1-5				**$4,973,684**

ATTACHMENT 2
Exhibit A to the Resolution

RIO DEL ORO
ONSITE SEWER IMPROVEMENTS
CITY OF RANCHO CORDOVA, CA
OCTOBER, 2014



- Sewer Manhole
- Existing Sewer Manhole
- Lift Station
- Existing Lift Station
- Proposed Sewer Pipe
- Future Aeroject-2 Interceptor
- Future Whiterock Interceptor
- Sewer Shed Major
- Sewer Shed Minor
- Proposed Mass Grade Contour

MAP D.4-1

NOTES:
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP,

PRELIMINARY

NORTH

0 800 1,600
FEET

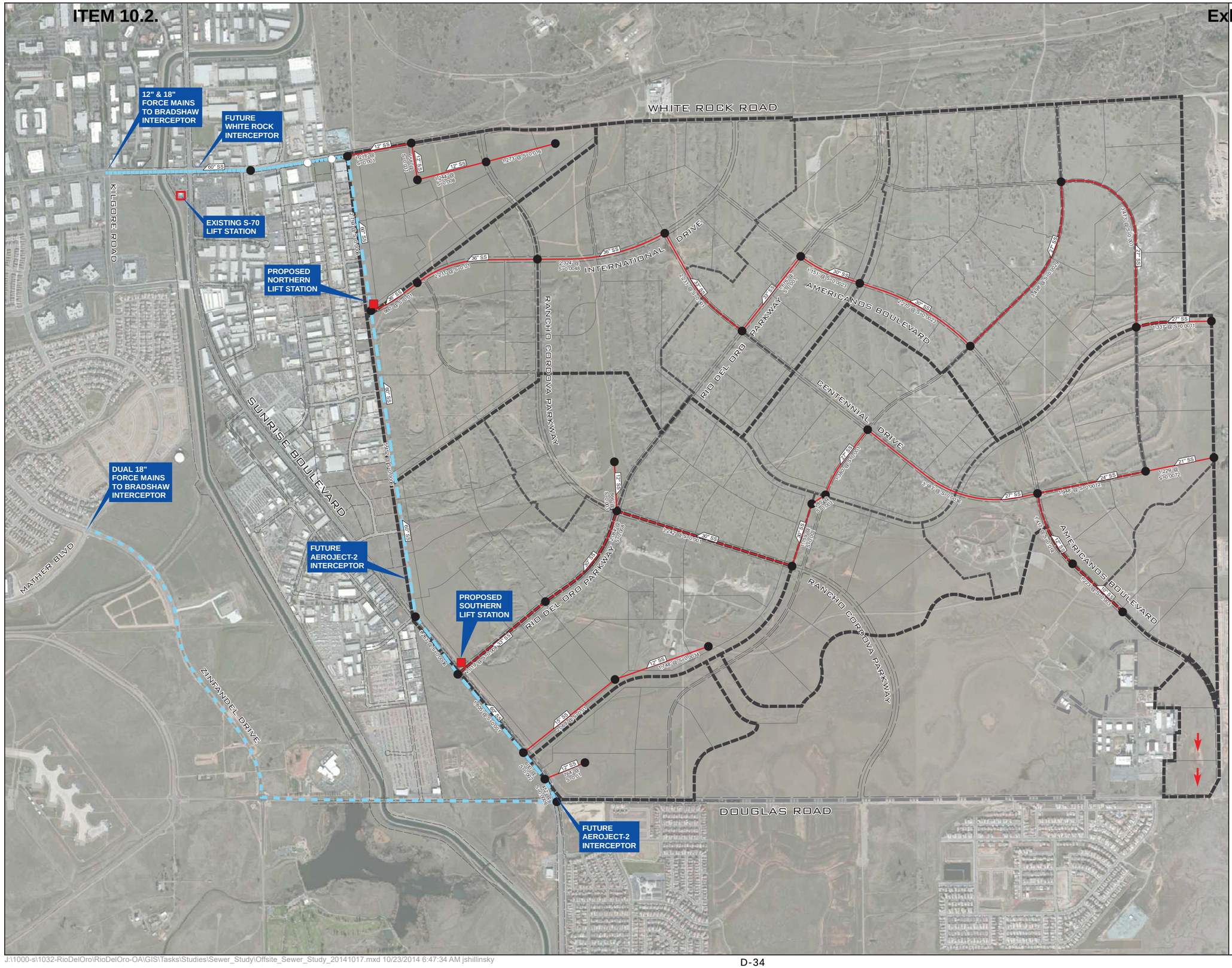
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3301 C Street, Bldg. 100-B Tel: 916.341.7760
Sacramento, CA 95816 Fax: 916.341.7767

RIO DEL ORO

OFFSITE SEWER IMPROVEMENTS

CITY OF RANCHO CORDOVA, CA

OCTOBER, 2014



Sewer Manhole
Existing Sewer Manhole
Lift Station
Existing Lift Station
Proposed Sewer Pipe
Future Aeroject-2 Interceptor
Future Whiterock Interceptor
Future Zinfandel Interceptor
Sewer Shed Major
Sewer Shed Minor
Proposed Mass Grade Contour

MAP D.4-2

NOTES:
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP,

PRELIMINARY

NORTH

0 800 1,600
FEET

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C Street, Bldg. 100-B Tel: 916.341.7760
Sacramento, CA 95816 Fax: 916.341.7767

Table D.5-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio Del Oro Open Space and Trails Total Cost Estimate

PHASE	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
1.	33.6	AC	Open Space-Green Infrastructure	$115,000.00	$3,864,000.00
	5.1	AC	Open Space-Parks	$231,000.00	$1,178,100.00
	7361	LF	Trails	$77.00	$566,797.00
			TOTAL PHASE 1		**$5,608,897.00**
2.	15.9652	AC	Open Space-Green Infrastructure	$115,000.00	$1,835,998.00
	5.4	AC	Open Space-Parks	$231,000.00	$1,247,400.00
	3900	LF	Trails	$77.00	$300,300.00
			TOTAL PHASE 2		**$3,383,698.00**
3.	49.0226	AC	Open Space-Green Infrastructure	$115,000.00	$5,637,599.00
	0	AC	Open Space-Parks	$231,000.00	$0.00
	8018	LF	Trails	$77.00	$617,386.00
			TOTAL PHASE 3		**$6,254,985.00**
4.	56.7678	AC	Open Space-Green Infrastructure	$115,000.00	$6,528,297.00
	5	AC	Open Space-Parks	$231,000.00	$1,155,000.00
	9483	LF	Trails	$77.00	$730,191.00
			TOTAL PHASE 4		**$8,413,488.00**
5.	17.03	AC	Open Space-Green Infrastructure	$115,000.00	$1,958,450.00
	64.3	AC	Open Space-Parks	$231,000.00	$14,853,300.00
	11958	LF	Trails	$77.00	$920,766.00
			TOTAL PHASE 5		**$17,732,516.00**
			TOTAL PHASE 1		$5,608,897.00
			TOTAL PHASE 2		$3,383,698.00
			TOTAL PHASE 3		$6,254,985.00
			TOTAL PHASE 4		$8,413,488.00
			TOTAL PHASE 5		$17,732,516.00
			TOTAL PRELIMINARY OPINION OF COST		**$41,393,584.00**

Table D.5-2
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio Del Oro Open Space and Trails Summary

Open Space[1] [AC]	**Phase 1**	**Phase2**	**Phase 3**	**Phase 4**	**Phase 5**
Park / Community Park	5.1	5.4	---	5	64.3
Drainage Parkways	---	---	17.3	36.3	1.1
Landscape Corridors / Greenbelts	21.6	14.32	5	---	15.93
Open Space Preserve / Wetland Preserve	---	---	---	12	---
Private Recreation	---	---	---	---	---
Storm Water Detention	12	---	24.9	6	---
Neighborhood Green Area / Urban Plaza[3]	---	1.65	1.82	2.47	---
Total Open Space	**38.7**	**21.37**	**49.02**	**61.77**	**81.33**
Trails[2] [LF]					
12' Off Street Trail	**2339**	**3900**	**3026**	**---**	**9332**
10' Off Street Trail	**5022**	**---**	**4992**	**9483**	**2626**

[1] Quantities based on XR_Fill_Prpsd_EX_updated_2020-12-14.dwg
[2] Quantities based on Trails and Open Spaces exhibit dated August 30, 2018
[3] Approximate acreage. Final location and acreage to be determined at by T-Map

Table D.5-3
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio Del Oro Green Infrastructure (Open Space-Drainage Parkways-Greenbelts-Detention) Unit Cost

	ITEM	QUANTITY	UNIT	UNIT PRICE	PER AC COST
1.	Subgrade Preparation	43,560.0	s.f.	$0.15	$6,534.00
2.	Excavation/Fine Grading-43,560 SF x 1 Ft x 1/27	1,613.0	c.y.	$3.50	$5,645.50
3.	Planting-Native Drainage Corridors	43,560	s.f.	$1.00	$43,560.00
4.	Temporary Irrigation	43,560	s.f.	$1.00	$43,560.00
			Total		**$99,299.50**
	Cost Escalation to 2020			**15.59%**	
			Use		**$115,000.00**

Table D.5-4
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio Del Oro Parks Unit Cost

	ITEM	QUANTITY	UNIT	UNIT PRICE	PER AC COST
1.	Subgrade Preparation	43,560.0	s.f.	$0.15	$6,534.00
2.	Excavation/Fine Grading-43,560 SF x 1 Ft x 1/27	1,613.0	c.y.	$3.50	$5,645.50
3.	Planting-Parks	43,560	s.f.	$2.00	$87,120.00
4.	Irrigation-Parks	43,560	s.f.	$1.50	$65,340.00
5.	Playground Equipment	1	LS	$35,000.00	$35,000.00
			Total		**$199,639.50**
	Cost Escalation to 2020			**15.59%**	
			Use		**$231,000.00**

Table D.5-5
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio Del Oro Trails Unit Cost

	ITEM	QUANTITY	UNIT	UNIT PRICE	PER LF COST
1.	Subgrade Preparation	12.0	s.f.	$0.15	$1.80
2.	Excavation/Fine Grading	2.0	c.y.	$3.50	$7.00
3.	Paving	12	s.f.	$3.50	$42.00
4.	Fencing	1	l.f.	$8.00	$8.00
5.	DG Shoulder	4	s.f.	$2.00	$8.00
			Total		**$66.80**
	Cost Escalation to 2020			**15.59%**	
			Use		**$77.00**

CONCEPTUAL PARK & OPEN SPACE MASTER PLAN

RIO DEL ORO

LEGEND

QUIMBY PARKS

- NEIGHBORHOOD PARK
- COMMUNITY PARK

COMMUNITY PLACES*

- NEIGHBORHOOD GREENS / URBAN PLAZAS (LOCATION FLEXIBLE; TBD BY T-MAP)

GREEN INFRASTRUCTURE

- DRAINAGE PARKWAYS
- LANDSCAPE CORRIDORS / GREENBELTS
- STORM WATER DETENTION
- GREEN STREETS / SEPARATED SIDEWALK (LOCATION FLEXIBLE; TBD BY T-MAP)
- NEIGHBORHOOD PASEOS (LOCATION FLEXIBLE; TBD BY T-MAP)
- LANDSCAPE CORRIDORS

OTHER OPEN SPACE

- OPEN SPACE PRESERVE / WETLAND PRESERVE
- PRIVATE RECREATION

* 16.6 acres are intended to be provided as Community Places identified during the small lot tentative mapping phase.



BIKEWAY AND TRAILS PLAN

RIO DEL ORO

ELLIOTT HOMES

CITY OF RANCHO CORDOVA, CALIFORNIA

SEPTEMBER 23, 2021

LEGEND

PHASE LINE

CLASS I 12' OFF-STREET REGIONAL TRAIL

- WEST TRAIL
- AMERICANOS TRAIL

CLASS I 10' OFF-STREET TRAIL

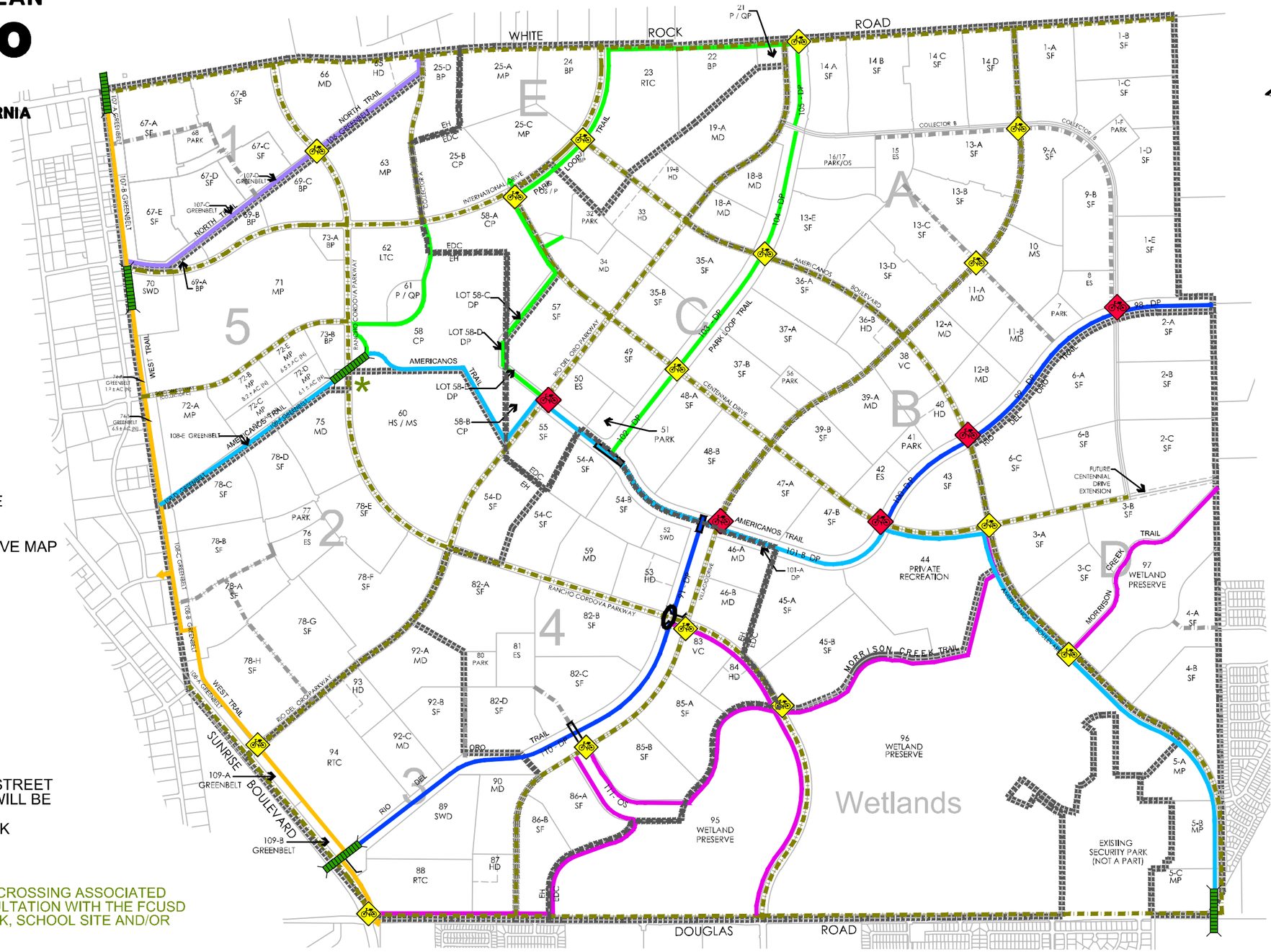
- NORTH TRAIL
- RIO DEL ORO TRAIL
- PARK LOOP TRAIL
- MORRISON CREEK TRAIL

CLASS II BIKE LANE

- LOCATION OF ON-STREET BIKE LANE
- NEIGHBORHOOD BIKE ROUTE TO BE SPECIFICALLY LOCATED AT TENTATIVE MAP

CROSSINGS

- GRADE SEPARATED STRUCTURE FUNDED BY CIP
- LOW FLOW CHANNEL CROSSING
- UNDER CROSSING
- AT GRADE STREET CROSSING
- FEASIBILITY OF A TRAIL UNDER CROSSING TO REPLACE AT GRADE STREET CROSSINGS AT THESE LOCATIONS WILL BE EVALUATED AT THE TENTATIVE SUBDIVISION MAP OR SCHOOL / PARK DESIGN REVIEW PHASES



* ACTUAL LOCATION OF TRAIL AND GRADE SEPARATED CROSSING ASSOCIATED WITH COMMUNITY PARK TO BE DETERMINED IN CONSULTATION WITH THE FCUSD AND THE CRPD PRIOR TO DESIGN OF COMMUNITY PARK, SCHOOL SITE AND/OR SEPARATED CROSSING.

NOTE:

IMPROVEMENTS SHOWN SHALL BE CONSTRUCTED BY THE DEVELOPER CONSISTENT WITH THE APPROVED PHASING PLAN FOR EACH DEVELOPMENT PHASE. GRADE SEPARATED STRUCTURES TO BE FUNDED AND CONSTRUCTED BY CITY.

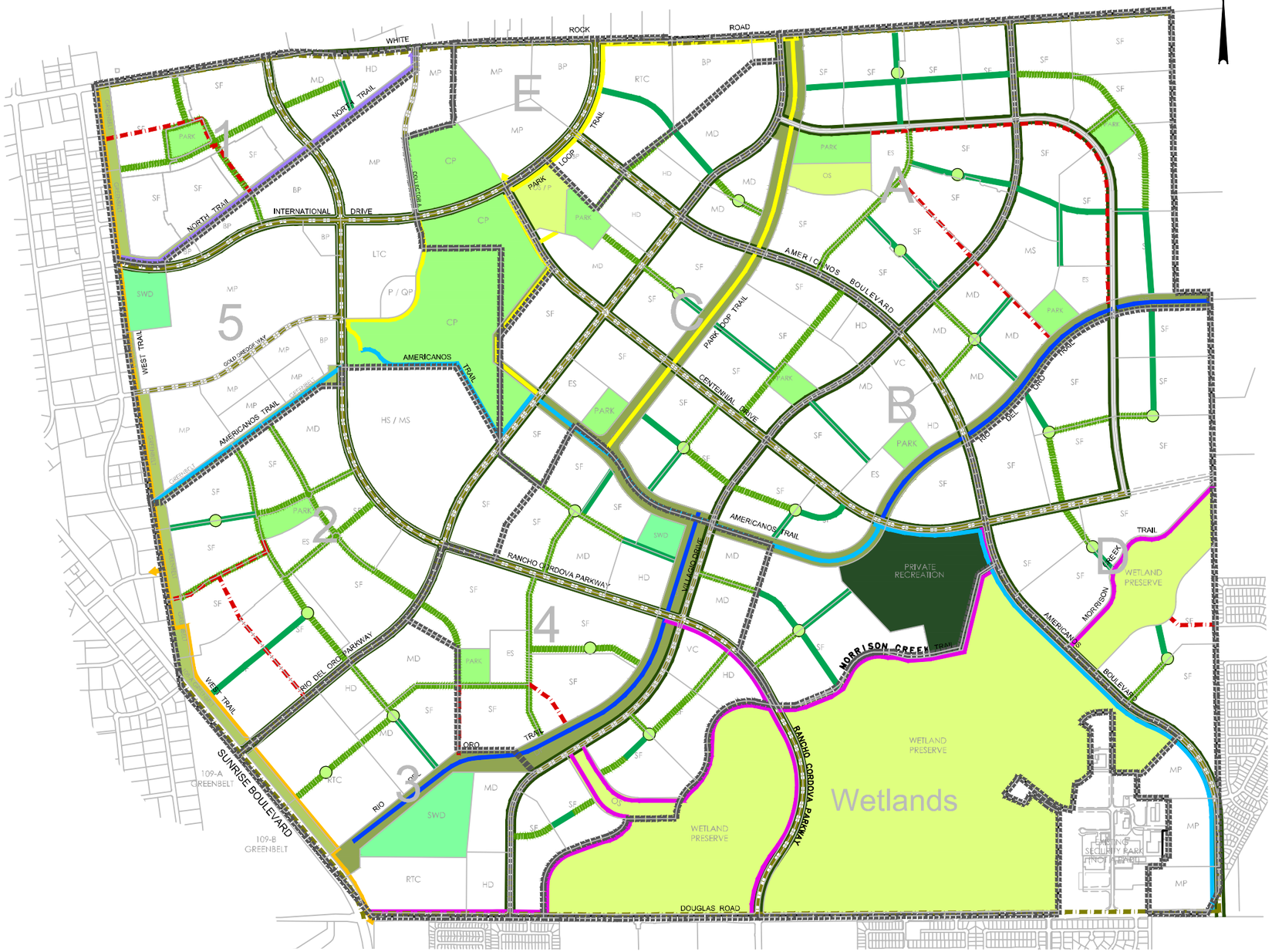
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ROSEVILLE, CA 95678
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FAX 916.341.7767

J:\1000-s\1032-RioDelOro\RioDelOro-Phase1\RDO-OA\Civil\Docs\FinancePlan\Table B-7 Quantities\EXH-4-6-BIKEWAY-TRAILS-RDO-OA.dwg 9/27/2021 2:31 PM Marisol Contreras

TRAILS AND OPEN SPACES PLAN
RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA

SEPTEMBER 23, 2021



LEGEND:

PHASE LINE

CLASS I 12' OFF-STREET REGIONAL TRAIL
- WEST TRAIL
- AMERICANOS TRAIL

CLASS I 10' OFF-STREET TRAIL
- NORTH TRAIL
- RIO DEL ORO TRAIL
- PARK LOOP TRAIL
- MORRISON CREEK TRAIL

CLASS II BIKE LANE
- LOCATION OF ON-STREET BIKE LANE
- NEIGHBORHOOD BIKE ROUTE TO BE SPECIFICALLY LOCATED AT TENTATIVE MAP

PARK/OPEN SPACE
- PARK
- COMMUNITY PARK
- DRAINAGE PARKWAYS
- LANDSCAPE CORRIDORS / GREENBELTS
- OPEN SPACE PRESERVE / WETLAND PRESERVE
- PRIVATE RECREATION
- STORM WATER DETENTION
- NEIGHBORHOOD GREEN/URBAN PLAZA (LOCATION FLEXIBLE; TBD BY T-MAP)
- GREEN STREETS / SEPARATED SIDEWALK (LOCATION FLEXIBLE; TBD BY T-MAP)
- NEIGHBORHOOD PASEOS (LOCATION FLEXIBLE; TBD BY T-MAP)
- LANDSCAPE CORRIDORS

NOTE:

IMPROVEMENTS SHOWN SHALL BE CONSTRUCTED BY THE DEVELOPER CONSISTENT WITH THE APPROVED PHASING PLAN FOR EACH DEVELOPMENT PHASE.

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

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APPENDIX E:

Phase 1 Project Phasing Example

Map E-1	Parcel 67 Tentative Subdivision Map Existing Conditions
Map E-2	Parcel 67 Tentative Subdivision Map Proposed Conditions
Map E-3	Parcel 67 Sub-Phase A Infrastructure Phasing
Map E-4	Parcel 67 Sub-Phase B Infrastructure Phasing
Map E-5	Parcel 67 Sub-Phase C Infrastructure Phasing
Map E-6	Parcel 67 Sub-Phase D Infrastructure Phasing
Map E-7	Parcel 67 Sub-Phase E Infrastructure Phasing
Map E-8	Parcel 67 Bikeway System

PARCEL 67 - TENTATIVE SUBDIVISION MAP

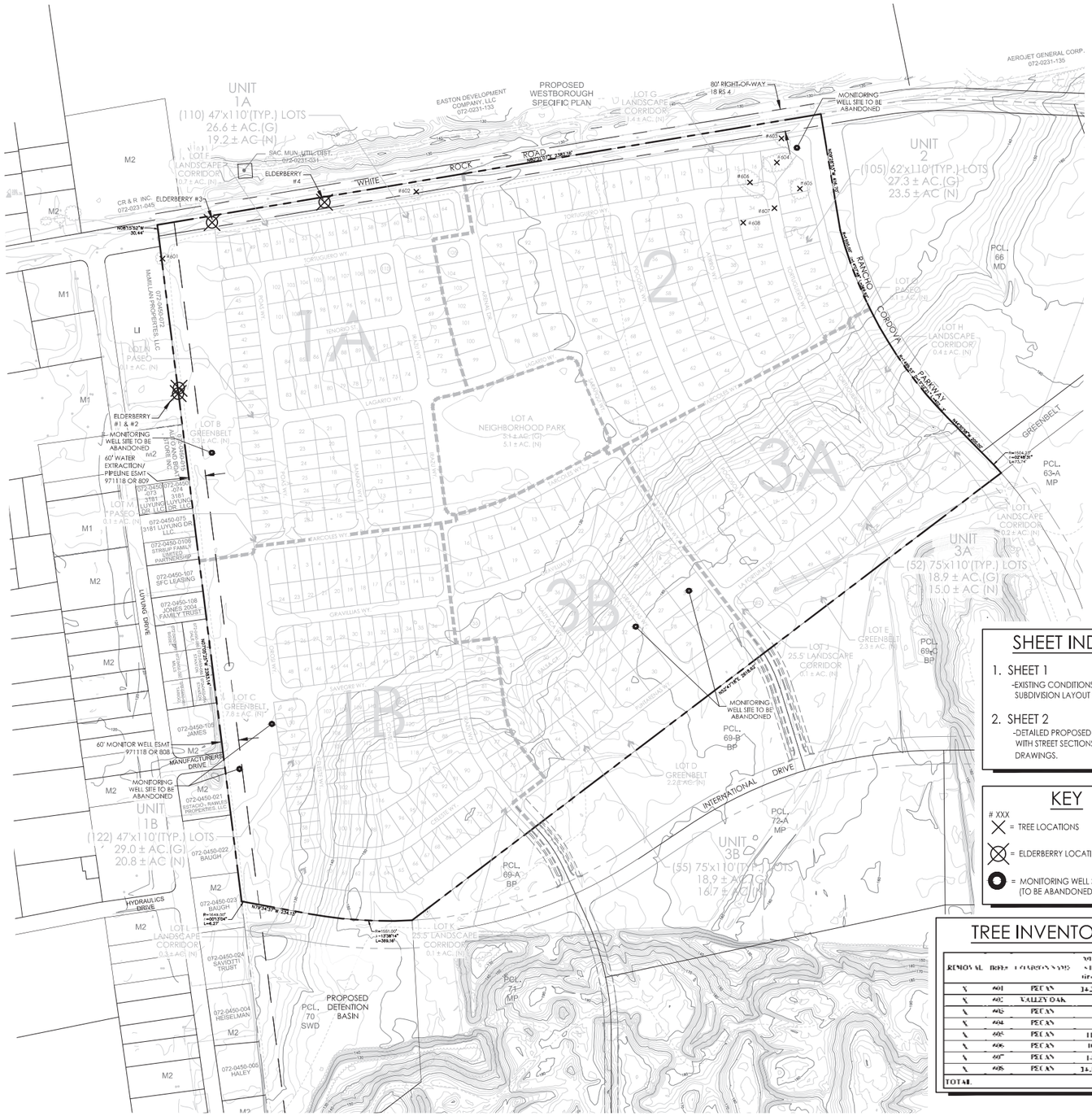
UNITS 1A, 1B, 2, 3A, 3B

RIO DEL ORO

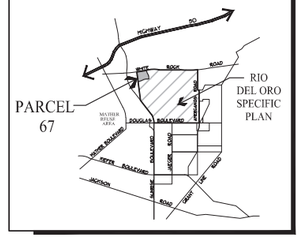
CITY OF RANCHO CORDOVA, CALIFORNIA

MAY 30, 2017

SHEET 1 OF 2



LOCATION MAP



PROJECT NOTES

RECORD OWNER/ APPLICANT
STONECREEK INDUSTRIAL LLC
C/O ELLIOTT HOMES
340 PALLADIO PARKWAY, SUITE 521
FOLSOM, CA 95630
(916) 984-1300
CONTACT: PRICE WALKER

PLANNER/ ENGINEER
WOOD RODGERS INC.
3301 'C' STREET, BLDG. 100 B
SACRAMENTO, CA 95816
CONTACT / PLANNER: TIMOTHY DENHAM, AICP
ENGINEER: TIMOTHY CRUSH, PE# 41978
PHONE: (916) 341-7760

ASSESSOR'S PARCEL NUMBERS
PORTION OF 072 0370 071

AREA
125.8 ± ACRES

EXISTING USE
VACANT

PROPOSED USE
SEE LAND USE SUMMARY

EXISTING & PROPOSED ZONING
RIO DEL ORO SPECIFIC PLANNING AREA (ORD. # SZC 95-0014)

NUMBER OF PROPOSED LOTS

444	RESIDENTIAL LOTS
1	NEIGHBORHOOD PARK LOT
4	GREENBELT LOTS
7	LANDSCAPE CORRIDOR LOTS
3	PASEO LOTS
459	TOTAL LOTS

PARK DISTRICT
CORDOVA RECREATION AND PARK DISTRICT

FIRE PROTECTION
SACRAMENTO METRO FIRE DISTRICT

SCHOOL DISTRICT
FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT

SEWER
SACRAMENTO COUNTY SANITATION DISTRICT 1

STORM DRAIN
COUNTY OF SACRAMENTO

WATER
COUNTY OF SACRAMENTO

ELECTRICITY
PG&E

NATURAL GAS
PG&E

NOTE: SEE SHEET 2 FOR LOT SQUARE FOOTAGE INFORMATION.

SHEET INDEX

1. SHEET 1
-EXISTING CONDITIONS WITH SUBDIVISION LAYOUT & NOTES.

2. SHEET 2
-DETAILED PROPOSED CONDITIONS WITH STREET SECTIONS & DETAIL DRAWINGS.

KEY

XXX = TREE LOCATIONS

= ELDERBERRY LOCATIONS

= MONITORING WELL SITE LOCATIONS (TO BE ABANDONED)

TREE INVENTORY

REMOVAL	TREE #	TREE SPECIES	SIZE (DBH)	DRIP LINE (RADIUS)
X	601	PECAN	34.2,32.2	35
X	602	VALLEY OAK	36	44
X	603	PECAN	36	31
X	604	PECAN	22	22
X	605	PECAN	11.26	25
X	606	PECAN	16.19	35
X	607	PECAN	14.15	25
X	608	PECAN	24.17,24	35
TOTAL				312

MAP NOTES

LAND USE SUMMARY

UNIT / LOT DESIGNATION	LAND USE	LOT SIZE (TYP)	GENERAL PLAN DESIGNATION	SPECIFIC PLAN AND ZONING DESIGNATION	AREA (G)	AREA (N)	DWELLING UNITS	NET DENSITY
1A	SINGLE FAMILY RESIDENTIAL	(47' X 110' TYP)	RDOSP (ORD. # SZC 95-0014)	SF (2.1-6.0 DU/AC)	26.6	19.2	110	5.73
1B	SINGLE FAMILY RESIDENTIAL	(47' X 110' TYP)	RDOSP (ORD. # SZC 95-0014)	SF (2.1-6.0 DU/AC)	29.0	20.8	122	5.87
2	SINGLE FAMILY RESIDENTIAL	(62' X 110' TYP)	RDOSP (ORD. # SZC 95-0014)	SF (2.1-6.0 DU/AC)	27.3	23.5	105	4.47
3A	SINGLE FAMILY RESIDENTIAL	(75' X 110' TYP)	RDOSP (ORD. # SZC 95-0014)	SF (2.1-6.0 DU/AC)	18.9	15.0	52	3.47
3B	SINGLE FAMILY RESIDENTIAL	(75' X 110' TYP)	RDOSP (ORD. # SZC 95-0014)	SF (2.1-6.0 DU/AC)	18.9	16.7	55	3.29
SUBTOTAL RESIDENTIAL					**120.7**	**95.2**	**444**	**4.66**
A	NEIGHBORHOOD PARK	-	RDOSP (ORD. # SZC 95-0014)	NP	5.1	5.1	-	
B-E	GREENBELT	-	RDOSP (ORD. # SZC 95-0014)	GB	-	17.6	-	
F-L	LANDSCAPE CORRIDOR	-	RDOSP (ORD. # SZC 95-0014)	SF (2.1-6.0 DU/AC)	-	3.2	-	
M-O	PASEO	-	RDOSP (ORD. # SZC 95-0014)	SF (2.1-6.0 DU/AC)	-	0.3	-	
RANCHO CORDOVA PKWY. & WHITE ROCK RD. R.O.W.	MAJOR ROADS	-	RDOSP (ORD. # SZC 95-0014)	N/A	-	4.4	-	
SUB-TOTAL NON RESIDENTIAL					**5.1**	**30.6**	**0**	
TOTAL					**125.8 AC.**	**125.8 AC.**	**444 DU**	

-UNIT GROSS ACREAGE EXCLUDES RANCHO CORDOVA PARKWAY/ WHITE ROCK ROAD AND GREENBELTS.

-UNIT NET ACREAGE EXCLUDES WHITE ROCK ROAD AND RANCHO CORDOVA PARKWAY, ALL LANDSCAPE CORRIDORS, PASEOS, NEIGHBORHOOD PARK, AND GREENBELTS, BUT INCLUDES ALL INTERNAL RESIDENTIAL STREETS.

RDOSP= RIO DEL ORO SPECIFIC PLAN

NORTH 0 200 400 800

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

J:\1000-x\1032-RioDelOro\RioDelOro-Elliott\Planning\Exhibits\TSM_PARCEL_67.dwg 6/12/2017 9:31 AM Lorenzo Ibarra

PARCEL 67 - TENTATIVE SUBDIVISION MAP

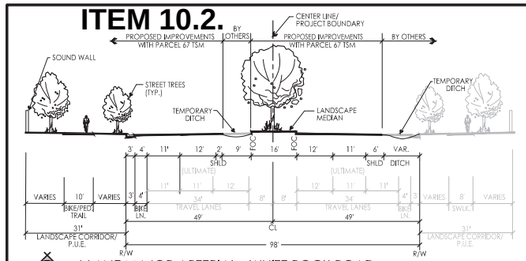
UNITS 1A, 1B, 2, 3A, 3B

RIO DEL ORO

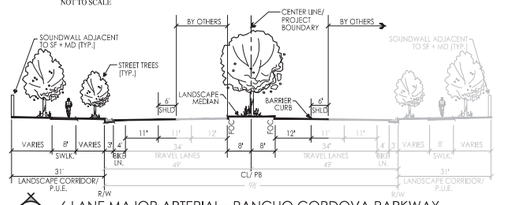
CITY OF RANCHO CORDOVA, CALIFORNIA

MAY 30, 2016

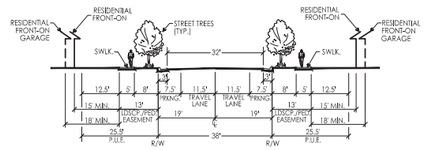
SHEET 2 OF 2



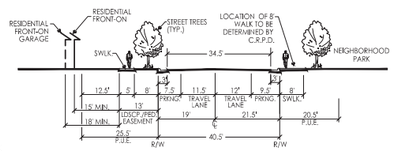
A 6 LANE MAJOR ARTERIAL - WHITE ROCK ROAD
98' STREET SECTION
NOT TO SCALE



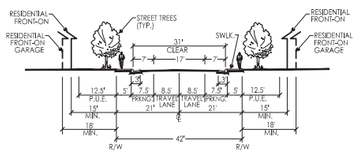
B 6 LANE MAJOR ARTERIAL - RANCHO CORDOVA PARKWAY
98' STREET SECTION
NOT TO SCALE



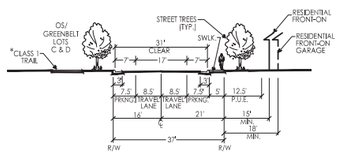
C PRIMARY RESIDENTIAL STREET WITH PARKING
38' STREET SECTION
NOT TO SCALE



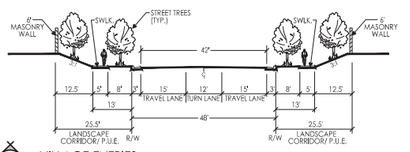
D PRIMARY RESIDENTIAL STREET ADJACENT TO PARK
40.5' STREET SECTION
NOT TO SCALE



E MINOR RESIDENTIAL STREET WITH ATTACHED WALK
42' STREET SECTION
NOT TO SCALE

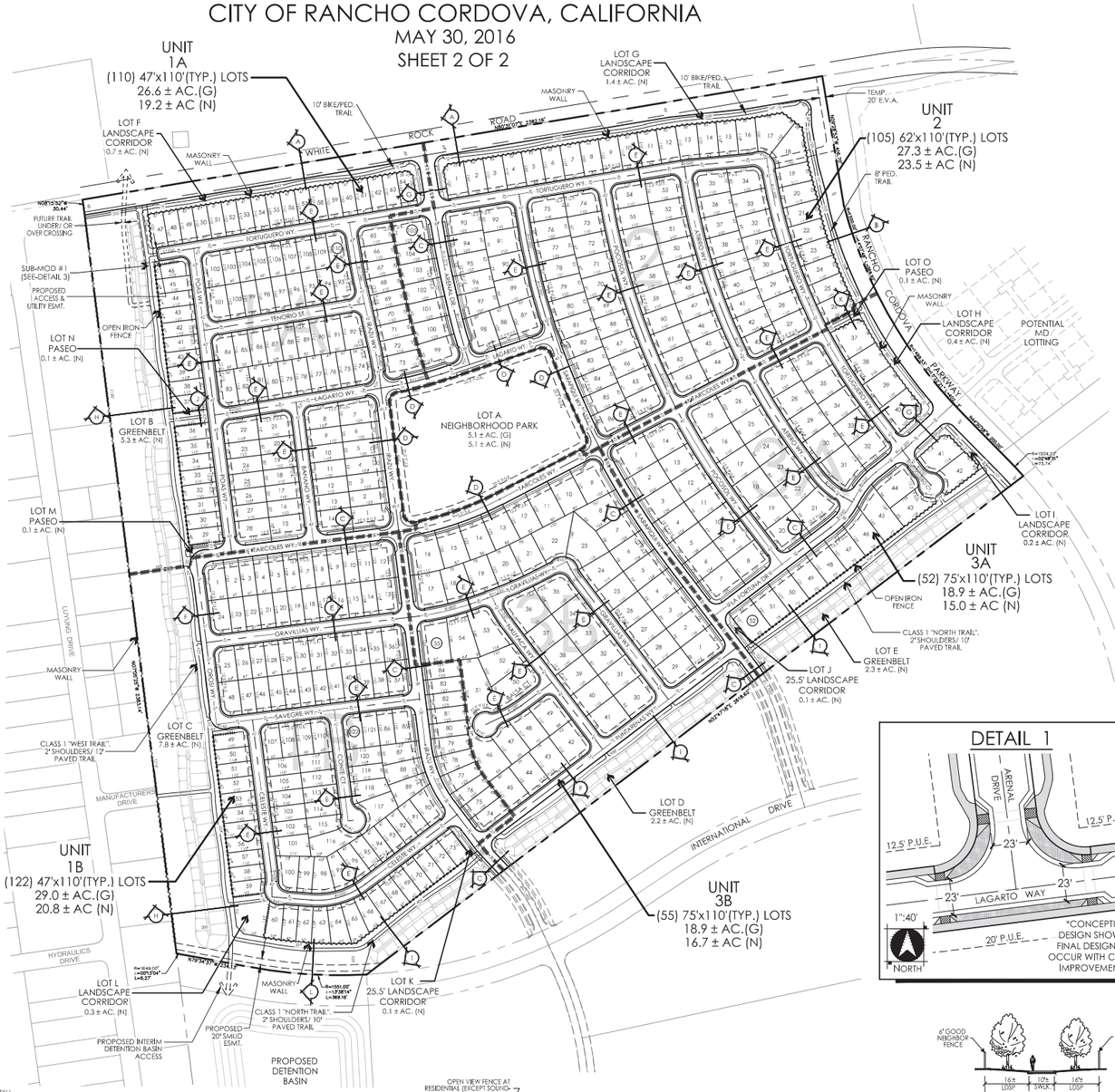


F MINOR RESIDENTIAL STREET - ADJACENT TO GREENBELT
37' STREET SECTION
NOT TO SCALE
* SEE GREENBELT SECTIONS 'H' AND 'I' FOR SECTION DETAIL



G VILLAGE ENTRIES
48' STREET SECTION
NOT TO SCALE
-AT PROJECT ENTRIES
-NO PARKING
-PILASTER AND SIGNAGE WITHIN P.U.E.

NORTH 0 200 400 800

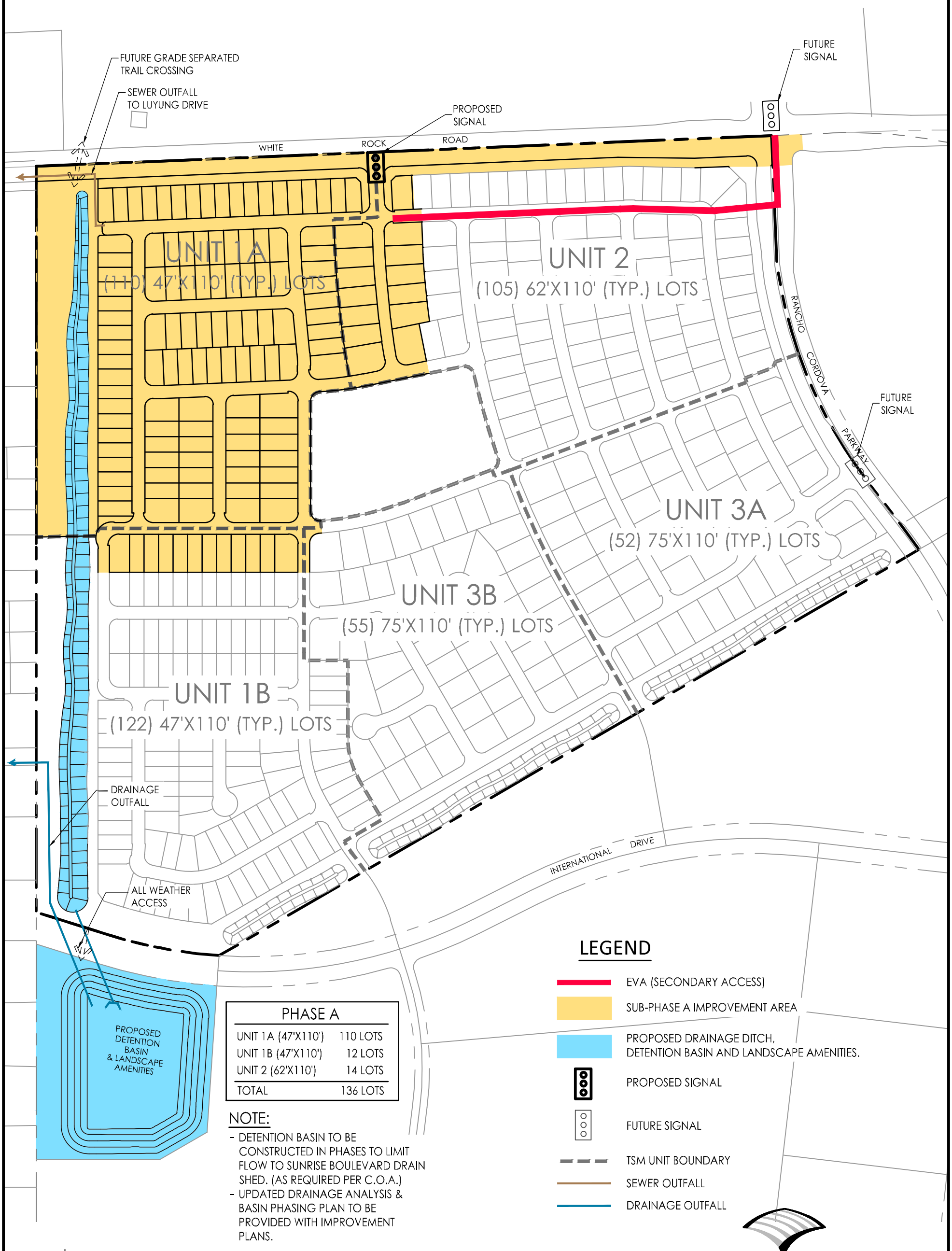

UNIT 1A
(110) 47'x110'(TYP.) LOTS
26.6 ± AC.(G)
19.2 ± AC (N)
UNIT 2
(105) 62'x110'(TYP.) LOTS
27.3 ± AC.(G)
23.5 ± AC (N)
UNIT 1B
(122) 47'x110'(TYP.) LOTS
29.0 ± AC.(G)
20.8 ± AC (N)
UNIT 3A
(52) 75'x110'(TYP.) LOTS
18.9 ± AC.(G)
15.0 ± AC (N)
UNIT 3B
(55) 75'x110'(TYP.) LOTS
18.9 ± AC.(G)
16.7 ± AC (N)
LOT A NEIGHBORHOOD PARK
5.1 ± AC. (G)
5.1 ± AC. (N)
LOT B GREENBELT
5.3 ± AC. (N)
LOT C GREENBELT
7.8 ± AC. (N)
LOT D GREENBELT
2.2 ± AC. (N)
LOT E GREENBELT
2.3 ± AC. (N)
LOT F LANDSCAPE CORRIDOR
0.7 ± AC. (N)
LOT G LANDSCAPE CORRIDOR
1.4 ± AC. (N)
LOT H LANDSCAPE CORRIDOR
0.4 ± AC. (N)
LOT I LANDSCAPE CORRIDOR
0.2 ± AC. (N)
LOT J 25.5' LANDSCAPE CORRIDOR
0.1 ± AC. (N)
LOT K 25.5' LANDSCAPE CORRIDOR
0.1 ± AC. (N)
LOT L LANDSCAPE CORRIDOR
0.3 ± AC. (N)
LOT M PASEO
0.1 ± AC. (N)
LOT N PASEO
0.1 ± AC. (N)
LOT O PASEO
0.1 ± AC. (N)
WHITE ROCK ROAD
RANCHO CORDOVA PARKWAY
10' BIKE/PED. TRAIL
MASONRY WALL
OPEN IRON FENCE
SUB-MOD #1 (SEE-DETAIL 3)
PROPOSED ACCESS & UTILITY ESMT.
FUTURE TRAIL UNDER/ OR OVER CROSSING
CLASS 1 "WEST TRAIL", 2' SHOULDERS/ 12' PAVED TRAIL
CLASS 1 "NORTH TRAIL", 2' SHOULDERS/ 10' PAVED TRAIL
PROPOSED INTERIM DETENTION BASIN ACCESS
PROPOSED 20' SMUD ESMT.
PROPOSED DETENTION BASIN
POTENTIAL MD LOTTING
INTERNATIONAL DRIVE
MANUFACTURERS DRIVE
HYDRAULICS DRIVE
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RIO DEL ORO

PARCEL 67 - SUB-PHASE A INFRASTRUCTURE PHASING PLAN

CITY OF RANCHO CORDOVA, CALIFORNIA

MAY, 2017



PHASE A	
UNIT 1A (47'X110')	110 LOTS
UNIT 1B (47'X110')	12 LOTS
UNIT 2 (62'X110')	14 LOTS
TOTAL	136 LOTS

NOTE:

- DETENTION BASIN TO BE CONSTRUCTED IN PHASES TO LIMIT FLOW TO SUNRISE BOULEVARD DRAIN SHED. (AS REQUIRED PER C.O.A.)
- UPDATED DRAINAGE ANALYSIS & BASIN PHASING PLAN TO BE PROVIDED WITH IMPROVEMENT PLANS.

LEGEND

- EVA (SECONDARY ACCESS)
- SUB-PHASE A IMPROVEMENT AREA
- PROPOSED DRAINAGE DITCH, DETENTION BASIN AND LANDSCAPE AMENITIES.
- PROPOSED SIGNAL
- FUTURE SIGNAL
- TSM UNIT BOUNDARY
- SEWER OUTFALL
- DRAINAGE OUTFALL

NORTH

0 300 600

WOOD RODGERS
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SACRAMENTO, CA 95816 FAX 916.341.7767

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RIO DEL ORO

PARCEL 67 - SUB-PHASE B INFRASTRUCTURE PHASING PLAN

CITY OF RANCHO CORDOVA, CALIFORNIA

MAY, 2017

NOTE:

SUB-PHASE 'A' INFRASTRUCTURE WILL BE EXISTING AT THIS POINT OF PHASING.

FUTURE GRADE SEPARATED TRAIL CROSSING

EXISTING SIGNAL

PROPOSED SIGNAL

WHITE ROCK ROAD

UNIT 1A
(110) 47'X110' (TYP.) LOTS

UNIT 2
(105) 62'X110' (TYP.) LOTS

RANCHO CORDOVA PARKWAY

FUTURE SIGNAL

NEIGHBORHOOD PARK

UNIT 3A
(52) 75'X110' (TYP.) LOTS

UNIT 3B
(55) 75'X110' (TYP.) LOTS

UNIT 1B
(122) 47'X110' (TYP.) LOTS

INTERNATIONAL DRIVE

ALL WEATHER ACCESS

EXISTING/ PROPOSED DETENTION BASIN & LANDSCAPE AMENITIES

110 ACRE-FT DETENTION BASIN & PUMP STATION

PHASE B	
UNIT 2 (62'X110')	91 LOTS
UNIT 3A (75'X110')	18 LOTS
UNIT 3B (75'X110')	8 LOTS
TOTAL	117 LOTS

NOTE:

- DETENTION BASIN TO BE CONSTRUCTED IN PHASES TO LIMIT FLOW TO SUNRISE BOULEVARD DRAIN SHED. (AS REQUIRED PER C.O.A.)
- UPDATED DRAINAGE ANALYSIS & BASIN PHASING PLAN TO BE PROVIDED WITH IMPROVEMENT PLANS.

LEGEND

- SUB-PHASE B IMPROVEMENT AREA
- PROPOSED DETENTION BASIN AND LANDSCAPE AMENITIES (IF NOT FULLY CONSTRUCTED WITH PHASE 1)
- EXISTING SIGNAL
- PROPOSED SIGNAL
- FUTURE SIGNAL
- TSM UNIT BOUNDARY

NORTH

0 300 600

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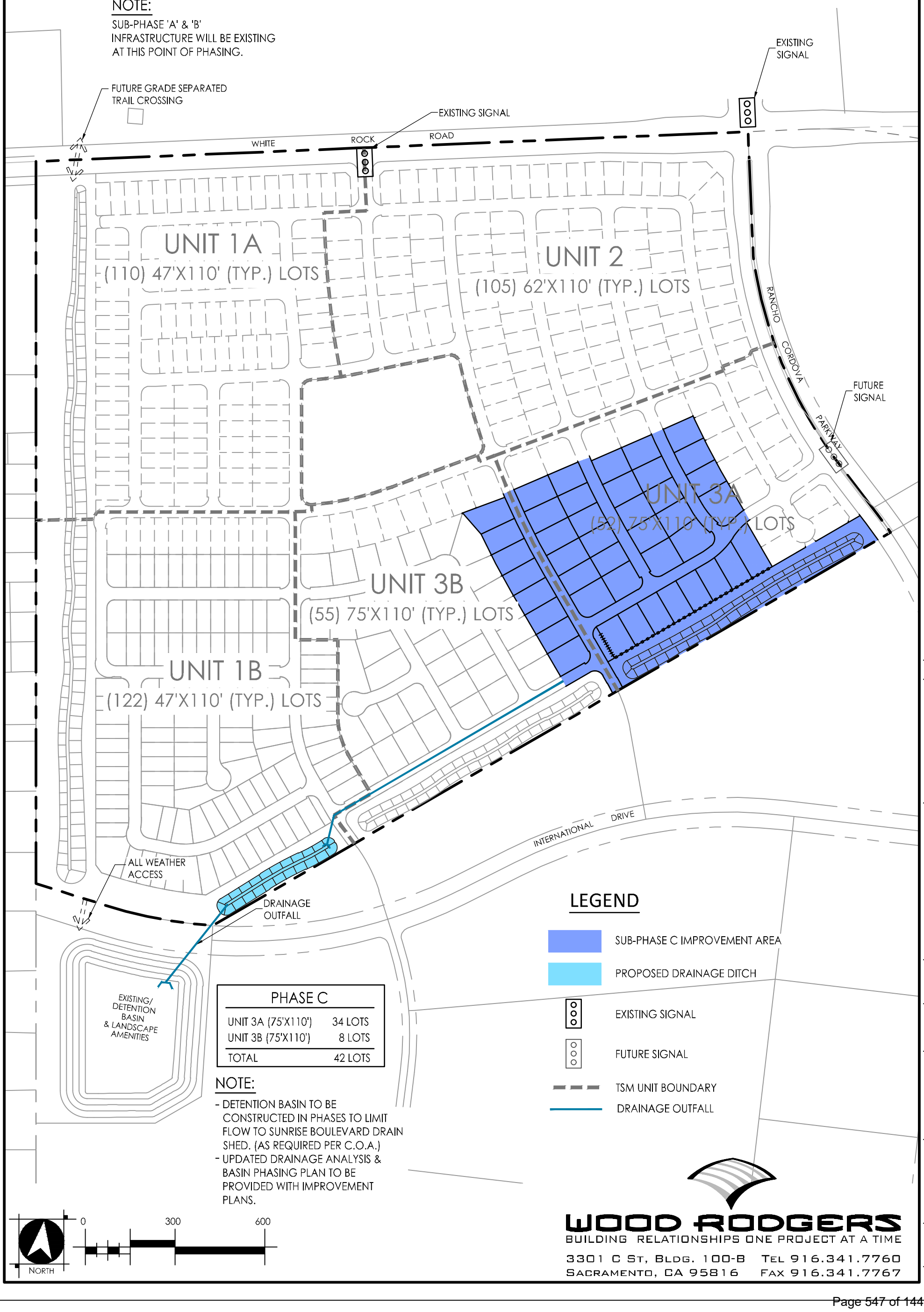
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PARCEL 67 - SUB-PHASE C INFRASTRUCTURE PHASING PLAN

CITY OF RANCHO CORDOVA, CALIFORNIA

MAY, 2017

NOTE:
SUB-PHASE 'A' & 'B'
INFRASTRUCTURE WILL BE EXISTING
AT THIS POINT OF PHASING.



PHASE C	
UNIT 3A (75'X110')	34 LOTS
UNIT 3B (75'X110')	8 LOTS
TOTAL	42 LOTS

NOTE:
- DETENTION BASIN TO BE CONSTRUCTED IN PHASES TO LIMIT FLOW TO SUNRISE BOULEVARD DRAIN SHED. (AS REQUIRED PER C.O.A.)
- UPDATED DRAINAGE ANALYSIS & BASIN PHASING PLAN TO BE PROVIDED WITH IMPROVEMENT PLANS.

LEGEND
- SUB-PHASE C IMPROVEMENT AREA
- PROPOSED DRAINAGE DITCH
- EXISTING SIGNAL
- FUTURE SIGNAL
- TSM UNIT BOUNDARY
- DRAINAGE OUTFALL

NORTH 0 300 600

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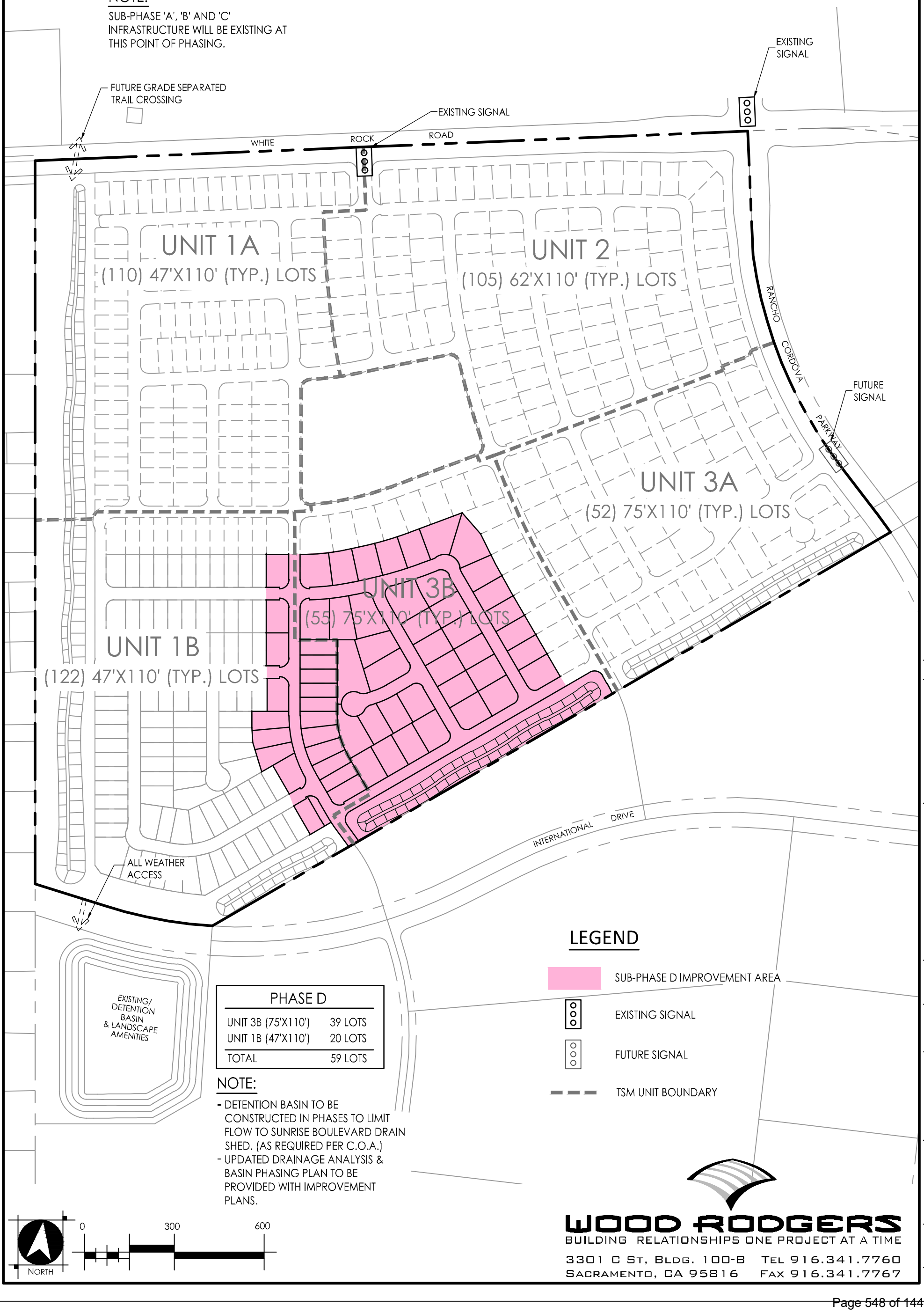
RIO DEL ORO

PARCEL 67 - SUB-PHASE D INFRASTRUCTURE PHASING PLAN

CITY OF RANCHO CORDOVA, CALIFORNIA

MAY, 2017

NOTE:
SUB-PHASE 'A', 'B' AND 'C' INFRASTRUCTURE WILL BE EXISTING AT THIS POINT OF PHASING.



PHASE D	
UNIT 3B (75'X110')	39 LOTS
UNIT 1B (47'X110')	20 LOTS
TOTAL	59 LOTS

NOTE:
- DETENTION BASIN TO BE CONSTRUCTED IN PHASES TO LIMIT FLOW TO SUNRISE BOULEVARD DRAIN SHED. (AS REQUIRED PER C.O.A.)
- UPDATED DRAINAGE ANALYSIS & BASIN PHASING PLAN TO BE PROVIDED WITH IMPROVEMENT PLANS.

LEGEND

- SUB-PHASE D IMPROVEMENT AREA
- EXISTING SIGNAL
- FUTURE SIGNAL
- TSM UNIT BOUNDARY

NORTH

0 300 600

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RIO DEL ORO

PARCEL 67 - SUB-PHASE E INFRASTRUCTURE PHASING PLAN

CITY OF RANCHO CORDOVA, CALIFORNIA

MAY, 2017

NOTE:

SUB-PHASE 'A', 'B', 'C' AND 'D' INFRASTRUCTURE WILL BE EXISTING AT THIS POINT OF PHASING.

FUTURE GRADE SEPARATED TRAIL CROSSING

EXISTING SIGNAL

EXISTING SIGNAL

WHITE ROCK ROAD

UNIT 1A
(110) 47'X110' (TYP.) LOTS

UNIT 2
(105) 62'X110' (TYP.) LOTS

RANCHO CORDOVA PARKWAY

FUTURE SIGNAL

UNIT 3A
(52) 75'X110' (TYP.) LOTS

UNIT 3B
(55) 75'X110' (TYP.) LOTS

UNIT 1B
(122) 47'X110' (TYP.) LOTS

INTERNATIONAL DRIVE

ALL WEATHER ACCESS

EXISTING/ DETENTION BASIN & LANDSCAPE AMENITIES

PHASE E	
UNIT 1B (47'X110')	90 LOTS
TOTAL	90 LOTS

NOTE:

- DETENTION BASIN TO BE CONSTRUCTED IN PHASES TO LIMIT FLOW TO SUNRISE BOULEVARD DRAIN SHED. (AS REQUIRED PER C.O.A.)
- UPDATED DRAINAGE ANALYSIS & BASIN PHASING PLAN TO BE PROVIDED WITH IMPROVEMENT PLANS.

LEGEND

- SUB-PHASE E IMPROVEMENT AREA
- EXISTING SIGNAL
- FUTURE SIGNAL
- TSM UNIT BOUNDARY

NORTH

0 300 600

WOOD RODGERS
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PARCEL 67 - BIKEWAY SYSTEM EXHIBIT

RIO DEL ORO

CITY OF RANCHO CORDOVA, CALIFORNIA

MAY 30, 2017



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Sacramento, CA 95816 Fax 916.341.7767

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APPENDIX F:

White Rock Road Cost Detail

Table F-1 Overall Cost Share Estimate—White Rock Road F-1

Table F-2 Phase I Cost Sharing Details F-2

Table F-3 Cost Share Estimate—White Rock Road–
Fitzgerald Road to 0.5 Mile East of Rancho
Cordova Parkway (3 pages) F-3

Table F-4 Cost Share Estimate—White Rock Road–
Fitzgerald Road to West Elliott Boundary &
East of Elliott/Aerojet Boundary (4 pages) F-6

Table F-5 Cost Share Estimate—White Rock Road–
Fitzgerald Road to 0.5 Mile East of Rancho
Cordova Parkway (2 pages) F-10

Table F-6 Rio del Oro White Rock Road Costs and
Credits/Reimbursements F-12

Table F-7 Rio del Oro Major White Rock Road
Developer Costs F-13

Table F-8 White Rock Road Intersection Costs and
Credits/Reimbursements F-14

Table F-9 White Rock Road—Aerojet Portion
Drainage Costs F-15

Exhibit F-1 White Rock Road—Surface Improvements

Table F-1
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Overall Cost Share Estimate - White Rock Road

	PHASE 1 WEST RDO BOUNDARY TO ELLIOTT/AEROJET PROPERTY LINE [4964 LF]				
	CITY COST	**+**	**ELLIOTT COST (PER DA'S) [2] [3] [4]**	**=**	**TOTAL COST**
SURFACE IMPROVEMENTS	$5,759,592	+	$972,427	=	$6,732,018
DRAINAGE IMPROVEMENTS	$1,359,769	+	$304,465	=	$1,664,234
JOINT TRENCH	$0	+	$600,148	=	$600,148
TOTAL	$7,119,361	+	$1,877,039	=	$8,996,400
	AEROJET/EASTON PORTION ELLIOTT/AEROJET PROPRTY LINE TO EAST RDO BOUNDARY [9829 LF]				
	CITY COST	**+**	**DEVELOPER COST (PER DA'S) [7]**	**=**	**TOTAL COST [6] [8]**
SURFACE IMPROVEMENTS	$10,112,044	+	$3,226,693	=	$13,338,737
DRAINAGE IMPROVEMENTS	$1,136,134	+	$1,100,946	=	$2,237,080
JOINT TRENCH	$0	+	$1,188,326		$1,188,326
TOTAL	$11,248,178	+	$5,515,965	=	$16,764,144
	TOTAL WRR (WEST RDO BOUNDARY TO EAST RDO BOUNDARY) [14793 LF]				
	CITY COST	**+**	**DEVELOPER**	**=**	**TOTAL COST**
SURFACE IMPROVEMENTS	$15,871,636	+	$4,199,120	=	$20,070,756
DRAINAGE IMPROVEMENTS	$2,495,903	+	$1,405,411	=	$3,901,314
JOINT TRENCH	$0		$1,788,474		$1,788,474
TOTAL	$18,367,539	+	$7,393,005	=	$25,760,544

[1] Unit prices based on WRR Phase 1 awarded project bid
[2] See Table F-2 for detail on cost sharing for Phase I.
[3] Per 2019 Develpoment Agreement & White Rock Road Surface Improvements Elliott Pay Items Exhibit
[4] Per Rio Del Oro - White Rock Road Storm Drain Cost Breakdown and Credits by CORC
[5] Per WRR Phase 1 Improvement Plans and awarded project bid amount
[6] Per Table F-6 and F-7, adjusted with current costs
[7] Per Finance Plan Table B-5 (98' R.O.W-WRR) for developer pay items only and adjusted with current costs
[8] Per 2013 Rancho Cordova Fee Program 2013 Update adjusted with current costs
[9] Per 2013 Rancho Cordova Fee Program 2013 Update & Rancho Cordova Storm Drain Schedule

Table F-2
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Phase I Cost Sharing Details

	Elliott Direct	Elliott to City	TOTAL
Surface	n/a	$972,427	$972,427
Joint Trench	$600,148	n/a	$600,148
Drainage	n/a	$304,465	$304,465
TOTAL	**$600,148**	**$1,276,892**	**$1,877,039**

Table F-3
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to 0.5 Mile East of Rancho Cordova Parkway

AWARDED BID						ELLIOTT PORTION							
Item No.	Item Description	Unit	Quantity	Unit Price	Amount	Quantity (Total)	Total Elliott Portion Costs	Quantity (East of RCP)	Unit Price	Amount (East of RCP)	Quantity (West of RCP)	Amount (West of RCP)	Notes
1	Mobilization	LS	1	$555,000.00	$ 555,000.00								
2	Clearing and Grubbing	LS	1	$100,000.00	$ 100,000.00	0.18	$18,000.00	0.09	$100,000.000	$9,000.00	0.09	$9,000.00	*Proportion of hard construction cost. Split b/w East and West based on LF proportion*
3	Construction Staking	LS	1	$150,000.00	$ 150,000.00	0.18	$27,000.00	0.09	$150,000.000	$13,500.00	0.09	$13,500.00	*Proportion of hard construction cost. Split b/w East and West based on LF proportion*
4	Prepare Storm Water Pollution Prevention Plan	LS	1	$15,000.00	$ 15,000.00	0.18	$2,700.00	0.09	$15,000.000	$1,350.00	0.09	$1,350.00	*Proportion of hard construction cost. Split b/w East and West based on LF proportion*
5	Temporary Check Dam	LF	4,880	$3.00	$ 14,640.00								
6	Temporary Drainage Inlet Protection	EA	51	$115.00	$ 5,865.00	19.00	$2,185.00	9.00	$115.000	$1,035.00	10.00	$1,150.00	
7	Fiber Roll	LF	12,050	$2.20	$ 26,510.00	1943.00	$4,274.60	1943.00	$2.200	$4,274.60	0.00	$0.00	*Only adjacent to Parcels 65 and 66. Elliott constructing landscape adjacent to Parcel 67.*
8	Hydroseed	ACRE	6	$2,600.00	$ 15,600.00	1.200	$3,120.00	1.20	$2,600.000	$3,120.00	0.00	$0.00	*Only adjacent to Parcels 65 and 66. Elliott constructing landscape adjacent to Parcel 67.*
9	Traffic Control System	LS	1	$574,714.50	$ 574,714.50	0.18	$103,448.61	0.09	$574,714.500	$51,724.31	0.09	$51,724.31	*Proportion of hard construction cost. Split b/w East and West based on LF proportion*
10	Construction Area Signs	LS	1	$25,000.00	$ 25,000.00	0.18	$4,500.00	0.09	$25,000.000	$2,250.00	0.09	$2,250.00	*Proportion of hard construction cost. Split b/w East and West based on LF proportion*
11	Alternative Temporary Crash Cushion	EA	1	$2,550.00	$ 2,550.00	0.18	$459.00	0.18	$2,550.000	$459.00	0.00	$0.00	
12	Temporary Railing (Type K)	LF	950	$25.00	$ 23,750.00	69.91	$1,747.75	69.91	$25.000	$1,747.75	0.00	$0.00	
13	Temporary High-Visibility Fence	LF	350	$2.30	$ 805.00	350.00	$805.00	350.00	$2.300	$805.00	0.00	$0.00	*Located on southside east of RCP.*
14	Roadway Excavation (F)	CY	54,900	$12.50	$ 686,250.00	1536.00	$19,200.00	723.00	$12.500	$9,037.50	813.00	$10,162.50	
15	Unsuitable Material Excavation and Replacement (Contingency)	CY	2,700	$21.00	$ 56,700.00								
16	Remove Base and Surfacing	SF	27,110	$2.00	$ 54,220.00								
17	Remove Sidewalk	LF	465	$6.75	$ 3,138.75								
18	Remove Curb and Gutter	LF	565	$6.75	$ 3,813.75								
19	Remove Curb Ramp	EA	6	$500.00	$ 3,000.00								
20	Remove Culvert	LF	40	$40.00	$ 1,600.00								
21	Remove Fence	LF	10,050	$1.50	$ 15,075.00								
22	Remove Barricade	EA	4	$450.00	$ 1,800.00								
23	Remove Sign	EA	15	$100.00	$ 1,500.00								
24	Hot Mix Asphalt (Type A)	TON	18,430	$66.00	$ 1,216,380.00	459.00	$30,294.00	190.00	$66.000	$12,540.00	269.00	$17,754.00	*Refer to surface exhibit.*
25	Place HMA Dike (Type A)	LF	45	$11.00	$ 495.00								
26	Place HMA Dike (Type E)	LF	970	$14.00	$ 13,580.00								
27	Place HMA Overside Drain	EA	2	$1,100.00	$ 2,200.00								
28	Cold Plane AC Pavement	SY	12,660	$2.75	$ 34,815.00								
29	Aggregate Base (Class 2)	CY	26,620	$30.00	$ 798,600.00	998.00	$29,940.00	300.00	$30.000	$9,000.00	698.00	$20,940.00	*AB includes streets, curb ramps, C&G, sidewalk where attached.*
30	Shoulder Backing	TON	340	$45.00	$ 15,300.00								
31	PCC Type 2 Curb & Gutter	LF	7,090	$25.00	$ 177,250.00	4801.00	$120,025.00	2577.00	$25.000	$64,425.00	2224.00	$55,600.00	
32	PCC Type 3 Curb	LF	210	$65.00	$ 13,650.00								
33	PCC Type 5 Curb	LF	10,040	$15.00	$ 150,600.00								
34	PCC Cross Gutter	SF	610	$60.00	$ 36,600.00								
35	PCC Driveway	SF	760	$14.00	$ 10,640.00								
36	PCC Sidewalk	SF	12,300	$10.00	$ 123,000.00	4197.00	$41,970.00	2571.00	$10.000	$25,710.00	1626.00	$16,260.00	*Where attached only.*
37	PCC Stamped & Colored	SF	5,150	$17.00	$ 87,550.00								
38	Curb Ramp	EA	34	$3,700.00	$ 125,800.00	10.00	$37,000.00	6.00	$3,700.000	$22,200.00	4.00	$14,800.00	
39	Detectable Warning Surface	EA	34	$525.00	$ 17,850.00	10.00	$5,250.00	6.00	$525.000	$3,150.00	4.00	$2,100.00	
40	Adjust Valve to Finished Grade	EA	1	$850.00	$ 850.00								
41	Adjust Manhole to Finished Grade	EA	12	$1,200.00	$ 14,400.00								
42	Sidewalk Barricade	EA	2	$750.00	$ 1,500.00								

Table F-3
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to 0.5 Mile East of Rancho Cordova Parkway

AWARDED BID						ELLIOTT PORTION							
Item No.	Item Description	Unit	Quantity	Unit Price	Amount	Quantity (Total)	Total Elliott Portion Costs	Quantity (East of RCP)	Unit Price	Amount (East of RCP)	Quantity (West of RCP)	Amount (West of RCP)	Notes
43	Street Closure Barricade	EA	4	$2,000.00	$ 8,000.00								
44	Type II Barricade	EA	10	$50.00	$ 500.00								
45	Type III Barricade	EA	40	$110.00	$ 4,400.00								
46	Security Fence	LF	5,200	$27.30	$ 141,960.00								
47	16’ Security Gate	EA	4	$3,050.00	$ 12,200.00								
48	Fence (Type BW)	LF	510	$14.00	$ 7,140.00								
49	16’ Wire Mesh Gate	EA	1	$1,200.00	$ 1,200.00								
50	Decorative Metal Fence	LF	65	$259.00	$ 16,835.00								
51	Decorative Metal Gate	EA	1	$20,150.00	$ 20,150.00								
52	Midwest Guardrail System	LF	125	$57.00	$ 7,125.00								
53	Alternative In-Line Terminal System	EA	2	$3,700.00	$ 7,400.00								
54	Type B Drop Inlet	EA	22	$3,000.00	$ 66,000.00	SEE TABLE F-9 FOR DETAILS	$304,465.00	SEE TABLE F-9 FOR DETAILS COSTS REFLECT HARD CONSTRUCTION COSTS LESS CITY ROADWAY AND DRAINAGE FEE PROGRAM CREDITS.					
55	OCP Drop Inlet	EA	9	$3,100.00	$ 27,900.00								
56	OMP Drop Inlet	EA	11	$2,000.00	$ 22,000.00								
57	12” C900 PVC Pipe	LF	1,850	$90.00	$ 166,500.00								
58	18” C900 PVC Pipe	LF	990	$130.00	$ 128,700.00								
59	24” C900 PVC Pipe	LF	1,500	$185.00	$ 277,500.00								
60	15” Class III RCP	LF	155	$75.00	$ 11,625.00								
61	30” HDPE Pipe	LF	735	$105.00	$ 77,175.00								
62	42” HDPE Pipe	LF	2,270	$150.00	$ 340,500.00								
63	48” Storm Drain Manhole	EA	11	$6,900.00	$ 75,900.00								
64	60” Storm Drain Manhole	EA	13	$9,000.00	$ 117,000.00								
65	15” Flared End Section	EA	2	$1,400.00	$ 2,800.00								
66	Install 8” DIP (Restrained)	LF	115	$120.00	$ 13,800.00	DIRECT REIMBURSEMENT FROM SACRAMENTO COUNTY WATER AGENCY TO CITY OF RANCHO CORDOVA							
67	Install 10” DIP (Restrained)	LF	470	$110.00	$ 51,700.00								
68	Install 12” DIP	LF	690	$80.00	$ 55,200.00								
69	Install 12” DIP (Restrained)	LF	570	$200.00	$ 114,000.00								
70	Install 16” DIP	LF	2,180	$115.00	$ 250,700.00								
71	Install 16” DIP (Restrained)	LF	610	$250.00	$ 152,500.00								
72	Install 24” DIP	LF	2,060	$145.00	$ 298,700.00								
73	Install 24” DIP (Restrained)	LF	870	$425.00	$ 369,750.00								
74	Install 30” DIP (Restrained)	LF	82	$675.00	$ 55,350.00								
75	Install 10” Gate Valve	EA	2	$3,400.00	$ 6,800.00								
76	Install 12” Butterfly Valve	EA	11	$5,500.00	$ 60,500.00								
77	Install 16” Butterfly Valve	EA	5	$8,900.00	$ 44,500.00								
78	Install 24” Butterfly Valve	EA	6	$20,000.00	$ 120,000.00								
79	Install 30” Butterfly Valve	EA	1	$35,000.00	$ 35,000.00								
80	Install 4” In-Line Blow Off Assembly	EA	2	$7,300.00	$ 14,600.00								
81	Install 4” Temporary Blow Off Assembly	EA	3	$6,400.00	$ 19,200.00								
82	Install 6” Temporary Blow Off Assembly	EA	2	$23,000.00	$ 46,000.00								
83	Install 8” Temporary Blow Off Assembly	EA	3	$19,000.00	$ 57,000.00								
84	Install 1” Combo Air Release / Vacuum Assembly	EA	1	$4,200.00	$ 4,200.00								
85	Install 2” Combo Air Release / Vacuum Assembly	EA	1	$8,000.00	$ 8,000.00								
86	Install Wire Locating Station	EA	5	$1,100.00	$ 5,500.00								
87	Install Fire Hydrant Assembly	EA	5	$12,500.00	$ 62,500.00								
88	Reconnect 6” Water Service	EA	1	$19,000.00	$ 19,000.00								
89	Tie-In to Existing Pipelines	EA	3	$8,000.00	$ 24,000.00								
90	Disinfection and Testing	LS	1	$150,000.00	$ 150,000.00								

Table F-3
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to 0.5 Mile East of Rancho Cordova Parkway

AWARDED BID						ELLIOTT PORTION							
Item No.	Item Description	Unit	Quantity	Unit Price	Amount	Quantity (Total)	Total Elliott Portion Costs	Quantity (East of RCP)	Unit Price	Amount (East of RCP)	Quantity (West of RCP)	Amount (West of RCP)	Notes
91	Pipe Abandon and Removal	LS	1	$5,000.00	$ 5,000.00								
92	Thermoplastic Traffic Stripe	LF	55,900	$0.45	$ 25,155.00								
93	Thermoplastic Pavement Marking	SF	3,890	$3.00	$ 11,670.00								
94	Temporary Traffic Stripe (Paint)	LF	34,200	$0.33	$ 11,286.00								
95	Roadside Sign	EA	18	$315.00	$ 5,670.00								
96	Relocate Sign	EA	2	$200.00	$ 400.00								
97	Object Marker	EA	7	$75.00	$ 525.00								
98	Channelizer (Surface Mounted)	EA	60	$33.00	$ 1,980.00								
99	Sound Wall	SF	2,400	$64.00	$ 153,600.00								
100	Traffic Signal – Fitzgerald Road	LS	1	$400,000.00	$ 400,000.00								
101	Traffic Signal – Rancho Cordova Pkwy	LS	1	$340,000.00	$ 340,000.00								
102	Traffic Signal – Collector A	LS	1	$320,000.00	$ 320,000.00	1.00	$320,000.00	1.00	$320,000.000	$320,000.00	0.00	$0.00	
103	Intersection Lighting/Traffic Signal Conduit – Luyung Drive	LS	1	$200,000.00	$ 200,000.00								
104	Traffic Signal Conduit – Future Collector (“Arenal Drive”)	LS	1	$44,000.00	$ 44,000.00	1.00	$44,000.00	1.00	$44,000.000	$44,000.00	0.00	$0.00	
105	Street Lighting	LS	1	$60,000.00	$ 60,000.00								
106	Traffic Signal Interconnect Conduit	LF	9,400	$57.00	$ 535,800.00								
107	12-Strand Single Mode Fiber Optic Cable	LF	600	$9.00	$ 5,400.00								
108	96-Strand Single Mode Fiber Optic Cable	LF	7,100	$6.00	$ 42,600.00								
109	Soil Amendment	SF	36,900	$ 0.65	$ 23,985.00								
110	1 Gallon Groundcover	EA	1,870	$ 45.50	$ 85,085.00								
111	4" Pot Groundcover	EA	5,400	$ 8.50	$ 45,900.00								
112	Mulch	CY	345	$ 80.00	$ 27,600.00								
113	Plant Establishment Period	LS	1	$ 6,000.00	$ 6,000.00								
114	4" PVC Irrigation Conduit	LF	1,700	$ 10.00	$ 17,000.00								
	TOTAL BASE BID PRICE (SURFACE IMPROVEMENTS)				**$ 7,562,588.00**		**$ 815,918.96**			**$ 599,328.16**		**$ 216,590.81**	
	TOTAL BASE BID PRICE (DRAINAGE)				**$ 1,313,600.00**		**$ 304,465.00**						
	TOTAL BASE BID PRICE (WATER)				**$ 2,043,500.00**		**$ -**						
	TOTAL (JOINT TRENCH) (ELLIOTT CONSTRUCTION RESPONSIBILTY)				**$ 461,652.00**		**$ -**						
	TOTAL BASE BID PRICE (LANDSCAPE)				**$ 205,570.00**		**$ -**						
	TOTAL BASE BID PRICE				**$ 11,586,910.00**								
	30% (SURVEYS, DESIGN, INSPECTION & CONTINGENCY)				**$ 3,476,073.00**								
	TOTAL				**$ 15,062,983.00**								

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Table F-4
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to West Elliott Boundary & East of Elliott/Aerojet Boundary (Non-Elliot Frontage)

Item No.	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization	LS	0.3	$555,000.00	$ 166,500.00
2	Clearing and Grubbing	LS	0.3	$100,000.00	$ 30,000.00
3	Construction Staking	LS	0.3	$150,000.00	$ 45,000.00
4	Prepare Storm Water Pollution Prevention Plan	LS	0.3	$15,000.00	$ 4,500.00
5	Temporary Check Dam	LF	75.0	$3.00	$ 225.00
6	Temporary Drainage Inlet Protection	EA	8.0	$115.00	$ 920.00
7	Fiber Roll	LF	1,845.0	$2.20	$ 4,059.00
8	Hydroseed	ACRE	0.7	$2,600.00	$ 1,820.00
9	Traffic Control System	LS	0.3	$574,714.50	$ 172,414.35
10	Construction Area Signs	LS	0.3	$25,000.00	$ 7,500.00
11	Alternative Temporary Crash Cushion	EA	1.0	$2,550.00	$ 2,550.00
12	Temporary Railing (Type K)	LF	950.0	$25.00	$ 23,750.00
13	Temporary High-Visibility Fence	LF	26.0	$2.30	$ 59.80
14	Roadway Excavation (F)	CY	1,050.0	$12.50	$ 13,125.00
15	Unsuitable Material Excavation and Replacement (Contingency)	CY	810.0	$21.00	$ 17,010.00
16	Remove Base and Surfacing	SF	0.0	$2.00	$ -
17	Remove Sidewalk	LF	465.0	$6.75	$ 3,138.75
18	Remove Curb and Gutter	LF	565.0	$6.75	$ 3,813.75
19	Remove Curb Ramp	EA	3.0	$500.00	$ 1,500.00
20	Remove Culvert	LF	0.0	$40.00	$ -
21	Remove Fence	LF	990.0	$1.50	$ 1,485.00
22	Remove Barricade	EA	3.0	$450.00	$ 1,350.00
23	Remove Sign	EA	11.0	$100.00	$ 1,100.00
24	Hot Mix Asphalt (Type A)	TON	4,210.0	$66.00	$ 277,860.00
25	Place HMA Dike (Type A)	LF	45.0	$11.00	$ 495.00
26	Place HMA Dike (Type E)	LF	581.0	$14.00	$ 8,134.00
27	Place HMA Overside Drain	EA	1.0	$1,100.00	$ 1,100.00
28	Cold Plane AC Pavement	SY	12,660.0	$2.75	$ 34,815.00
29	Aggregate Base (Class 2)	CY	4,115.0	$30.00	$ 123,450.00
30	Shoulder Backing	TON	108.0	$45.00	$ 4,860.00
31	PCC Type 2 Curb & Gutter	LF	930.0	$45.00	$ 41,850.00
32	PCC Type 3 Curb	LF	210.0	$65.00	$ 13,650.00
33	PCC Type 5 Curb	LF	243.0	$15.00	$ 3,645.00
34	PCC Cross Gutter	SF	610.0	$60.00	$ 36,600.00
35	PCC Driveway	SF	760.0	$14.00	$ 10,640.00
36	PCC Sidewalk	SF	4,813.0	$10.00	$ 48,130.00
37	PCC Stamped & Colored	SF	0.0	$17.00	$ -
38	Curb Ramp	EA	14.0	$3,700.00	$ 51,800.00
39	Detectable Warning Surface	EA	14.0	$525.00	$ 7,350.00
40	Adjust Valve to Finished Grade	EA	1.0	$850.00	$ 850.00
41	Adjust Manhole to Finished Grade	EA	10.0	$1,200.00	$ 12,000.00
42	Sidewalk Barricade	EA	1.0	$750.00	$ 750.00

Table F-4
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to West Elliott Boundary & East of Elliott/Aerojet Boundary (Non-Elliot Frontage)

Item No.	Item Description	Unit	Quantity	Unit Price	Amount
43	Street Closure Barricade	EA	0.0	$2,000.00	$ -
44	Type II Barricade	EA	10.0	$50.00	$ 500.00
45	Type III Barricade	EA	40.0	$110.00	$ 4,400.00
46	Security Fence	LF	320.0	$27.30	$ 8,736.00
47	16’ Security Gate	EA	1.0	$3,050.00	$ 3,050.00
48	Fence (Type BW)	LF	510.0	$14.00	$ 7,140.00
49	16’ Wire Mesh Gate	EA	1.0	$1,200.00	$ 1,200.00
50	Decorative Metal Fence	LF	65.0	$259.00	$ 16,835.00
51	Decorative Metal Gate	EA	1.0	$20,150.00	$ 20,150.00
52	Midwest Guardrail System	LF	125.0	$57.00	$ 7,125.00
53	Alternative In-Line Terminal System	EA	2.0	$3,700.00	$ 7,400.00
54	Type B Drop Inlet	EA	2.0	$3,000.00	$ 6,000.00
55	OCP Drop Inlet	EA	0.0	$3,100.00	$ -
56	OMP Drop Inlet	EA	0.0	$2,000.00	$ -
57	12” C900 PVC Pipe	LF	228.0	$90.00	$ 20,520.00
58	18” C900 PVC Pipe	LF	0.0	$130.00	$ -
59	24” C900 PVC Pipe	LF	0.0	$185.00	$ -
60	15” Class III RCP	LF	0.0	$75.00	$ -
61	30” HDPE Pipe	LF	0.0	$105.00	$ -
62	42” HDPE Pipe	LF	0.0	$150.00	$ -
63	48” Storm Drain Manhole	EA	1.0	$6,900.00	$ 6,900.00
64	60” Storm Drain Manhole	EA	0.0	$9,000.00	$ -
65	15” Flared End Section	EA	0.0	$1,400.00	$ -
66	Install 8” DIP (Restrained)	LF	115.0	$120.00	$ 13,800.00
67	Install 10” DIP (Restrained)	LF	470.0	$110.00	$ 51,700.00
68	Install 12” DIP	LF	690.0	$80.00	$ 55,200.00
69	Install 12” DIP (Restrained)	LF	570.0	$200.00	$ 114,000.00
70	Install 16” DIP	LF	2,180.0	$115.00	$ 250,700.00
71	Install 16” DIP (Restrained)	LF	610.0	$250.00	$ 152,500.00
72	Install 24” DIP	LF	2,060.0	$145.00	$ 298,700.00
73	Install 24” DIP (Restrained)	LF	870.0	$425.00	$ 369,750.00
74	Install 30” DIP (Restrained)	LF	82.0	$675.00	$ 55,350.00
75	Install 10” Gate Valve	EA	2.0	$3,400.00	$ 6,800.00
76	Install 12” Butterfly Valve	EA	11.0	$5,500.00	$ 60,500.00
77	Install 16” Butterfly Valve	EA	5.0	$8,900.00	$ 44,500.00
78	Install 24” Butterfly Valve	EA	6.0	$20,000.00	$ 120,000.00
79	Install 30” Butterfly Valve	EA	1.0	$35,000.00	$ 35,000.00
80	Install 4” In-Line Blow Off Assembly	EA	2.0	$7,300.00	$ 14,600.00
81	Install 4” Temporary Blow Off Assembly	EA	3.0	$6,400.00	$ 19,200.00
82	Install 6” Temporary Blow Off Assembly	EA	2.0	$23,000.00	$ 46,000.00
83	Install 8” Temporary Blow Off Assembly	EA	3.0	$19,000.00	$ 57,000.00
84	Install 1” Combo Air Release / Vacuum Assembly	EA	1.0	$4,200.00	$ 4,200.00

Table F-4
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to West Elliott Boundary & East of Elliott/Aerojet Boundary (Non-Elliot Frontage)

Item No.	Item Description	Unit	Quantity	Unit Price	Amount
85	Install 2” Combo Air Release / Vacuum Assembly	EA	1.0	$8,000.00	$ 8,000.00
86	Install Wire Locating Station	EA	5.0	$1,100.00	$ 5,500.00
87	Install Fire Hydrant Assembly	EA	5.0	$12,500.00	$ 62,500.00
88	Reconnect 6” Water Service	EA	1.0	$19,000.00	$ 19,000.00
89	Tie-In to Existing Pipelines	EA	3.0	$8,000.00	$ 24,000.00
90	Disinfection and Testing	LS	1.0	$150,000.00	$ 150,000.00
91	Pipe Abandon and Removal	LS	1.0	$5,000.00	$ 5,000.00
92	Thermoplastic Traffic Stripe	LF	20,590.0	$0.45	$ 9,265.50
93	Thermoplastic Pavement Marking	SF	755.0	$3.00	$ 2,265.00
94	Temporary Traffic Stripe (Paint)	LF	5,670.0	$0.33	$ 1,871.10
95	Roadside Sign	EA	9.0	$315.00	$ 2,835.00
96	Relocate Sign	EA	2.0	$200.00	$ 400.00
97	Object Marker	EA	2.0	$75.00	$ 150.00
98	Channelizer (Surface Mounted)	EA	0.0	$33.00	$ -
99	Sound Wall	SF	7,000.0	$64.00	$ 448,000.00
100	Traffic Signal – Fitzgerald Road	LS	1.0	$400,000.00	$ 400,000.00
101	Traffic Signal – Rancho Cordova Pkwy	LS	0.0	$340,000.00	$ -
102	Traffic Signal – Collector A	LS	0.0	$320,000.00	$ -
103	Intersection Lighting/Traffic Signal Conduit – Luyung Drive	LS	1.0	$200,000.00	$ 200,000.00
104	Traffic Signal Conduit – Future Collector (“Arenal Drive”)	LS	0.0	$44,000.00	$ -
105	Street Lighting	LS	1.0	$60,000.00	$ 60,000.00
106	Traffic Signal Interconnect Conduit	LF	2,820.0	$57.00	$ 160,740.00
107	12-Strand Single Mode Fiber Optic Cable	LF	180.0	$9.00	$ 1,620.00
108	96-Strand Single Mode Fiber Optic Cable	LF	2,130.0	$6.00	$ 12,780.00
109	Irrigation - Sleeving	LF	0.0	$ 10.00	$ -
110	Irrigation - POC / Master Valve / Flow Sensor	EA	0.0	$ 3,600.00	$ -
111	Irrigation - Controller	EA	0.0	$ 4,600.00	$ -
112	Irrigation - Mainline	LF	0.0	$ 14.50	$ -
113	Irrigation - Wire	LF	0.0	$ 1.25	$ -
114	Irrigation - Gate Valves	EA	0.0	$ 560.00	$ -
115	Irrigation - Quick Coupler Valves	EA	0.0	$ 460.00	$ -
116	Irrigation - Remote Control Valves	EA	0.0	$ 490.00	$ -
117	Irrigation - Laterals	LF	0.0	$ 7.00	$ -
118	Irrigation - Tree Bubblers	EA	0.0	$ 60.00	$ -
119	Irrigation - Audit	EA	0.0	$ 1,460.00	$ -
120	Soil Preparation - Amendment / Finish Grading	SF	0.0	$ 0.65	$ -
121	Planting - 15 Gallon Trees	EA	0.0	$ 400.00	$ -
122	Planting - Root Barriers	EA	0.0	$ 30.00	$ -
123	Planting - Bark Mulch	CY	0.0	$ 80.00	$ -
124	Plant Establishment Period - 120 Days	LS	0.0	$ 12,000.00	$ -

Table F-4
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to West Elliott Boundary & East of Elliott/Aerojet Boundary (Non-Elliot Frontage)

Item No.	Item Description	Unit	Quantity	Unit Price	Amount
	TOTAL BASE BID PRICE (SURFACE IMPROVEMENTS - ITEMS 1-53 AND 92-108)				$ 2,556,262.25
	TOTAL BASE BID PRICE (DRAINAGE - ITEMS 54 - 65)				$ 33,420.00
	TOTAL BASE BID PRICE (WATER - ITEMS 66 - 91)				$ 2,043,500.00
	TOTAL BASE BID PRICE (LANDSCAPE - ITEMS 109 - 124)				$ -
	TOTAL BASE BID PRICE				$ 4,633,182.25
	30% (SURVEYS, DESIGN, INSPECTION & CONTINGENCY)				$ 1,389,954.68
	TOTAL BASE BID PRICE				$ 6,023,136.93

Table F-5
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to 0.5 Mile East of Rancho Cordova Parkway (Elliot Pay Items - Surface Improvements)

East of Rancho Cordova Parkway					
Item No.	**Item Description**	**Unit**	**Quantity**	**Unit Price**	**Amount**
2	Clearing and Grubbing	LS	0.09	$100,000.00	$9,000.00
3	Construction Staking	LS	0.09	$150,000.00	$13,500.00
4	Prepare Storm Water Pollution Prevention Plan	LS	0.09	$15,000.00	$1,350.00
6	Temporary Drainage Inlet Protection	EA	9.00	$115.00	$1,035.00
7	Fiber Roll	LF	1943.00	$2.20	$4,274.60
8	Hydroseed	ACRE	1.20	$2,600.00	$3,120.00
9	Traffic Control System	LS	0.09	$574,714.50	$51,724.31
10	Construction Area Signs	LS	0.09	$25,000.00	$2,250.00
11	Alternative Temporary Crash Cushion	EA	0.18	$2,550.00	$459.00
12	Temporary Railing (Type K)	LF	69.91	$25.00	$1,747.75
13	Temporary High-Visibility Fence	LF	350.00	$2.30	$805.00
14	Roadway Excavation (F)	CY	723.00	$12.50	$9,037.50
24	Hot Mix Asphalt (Type A)	TON	190.00	$66.00	$12,540.00
29	Aggregate Base (Class 2)	CY	300.00	$30.00	$9,000.00
31	PCC Type 2 Curb & Gutter	LF	2577.00	$25.00	$64,425.00
36	PCC Sidewalk	SF	2571.00	$10.00	$25,710.00
38	Curb Ramp	EA	6.00	$3,700.00	$22,200.00
39	Detectable Warning Surface	EA	6.00	$525.00	$3,150.00
102	Traffic Signal – Collector A	LS	1.00	$320,000.00	$320,000.00
104	Traffic Signal Conduit – Future Collector (“Arenal Drive”)	LS	1.00	$44,000.00	$44,000.00
	TOTAL BASE BID PRICE (SURFACE IMPROVEMENTS)				**$ 599,328.16**
	TOTAL ELLIOTT PAYMENT TO CITY AT 122.5% OF HARD CONSTRUCTION COSTS				**$ 734,176.99**

Table F-5
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Cost Share Estimate - White Rock Road-Fitzgerald Road to 0.5 Mile East of Rancho Cordova Parkway (Elliot Pay Items - Surface Improvements)

West of Rancho Cordova Parkway					
Item No.	**Item Description**	**Unit**	**Quantity**	**Unit Price**	**Amount**
2	Clearing and Grubbing	LS	0.09	$100,000.00	$9,000.00
3	Construction Staking	LS	0.09	$150,000.00	$13,500.00
4	Prepare Storm Water Pollution Prevention Plan	LS	0.09	$15,000.00	$1,350.00
6	Temporary Drainage Inlet Protection	EA	10.00	$115.00	$1,150.00
9	Traffic Control System	LS	0.09	$574,714.50	$51,724.31
10	Construction Area Signs	LS	0.09	$25,000.00	$2,250.00
14	Roadway Excavation (F)	CY	813.00	$12.50	$10,162.50
24	Hot Mix Asphalt (Type A)	TON	269.00	$66.00	$17,754.00
29	Aggregate Base (Class 2)	CY	698.00	$30.00	$20,940.00
31	PCC Type 2 Curb & Gutter	LF	2224.00	$25.00	$55,600.00
36	PCC Sidewalk	SF	1626.00	$10.00	$16,260.00
38	Curb Ramp	EA	4.00	$3,700.00	$14,800.00
39	Detectable Warning Surface	EA	4.00	$525.00	$2,100.00
	TOTAL BASE BID PRICE (SURFACE IMPROVEMENTS)				**$ 216,590.81**
	TOTAL ELLIOTT PAYMENT TO CITY AT 110% OF HARD CONSTRUCTION COSTS				**$ 238,249.89**
	TOTAL ELLIOTT PAYMENT TO CITY				**$ 972,426.88**

Table F-6
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro White Rock Road Costs and Credits/Reimbursements

Preliminary Cost Per Linear Foot
White Rock Road 98-Foot Right-of-Way
(4 Travel Lanes and Inside Landscaped Median)

	ITEM	QUANTITY	UNIT	UNIT PRICE	PER FT COST
1.	Subgrade Preparation	63	s.f	$0.15	$9.45
2.	Excavation	4.5	c.y.	$12.50	$56.25
3.	6" HMA (Type A)	2	tons	$66.00	$138.60
4.	17" Aggregate Base	3	c.y	$30.00	$90.00
5.	Curb & Gutter, Type 2 (Vertical Curb)	1	l.f.	$25.00	$25.00
6.	Median Curb, Type 5 (6" Barrier Curb)	2	l.f.	$15.00	$30.00
7.	Median Landscaping & Irrigation (turf & street trees)	13	s.f.	$5.57	$72.42
8.	Median Top Soil Import (18")	0.8	c.y.	$10.00	$8.00
9.	Signing & Striping	1	l.f.	$6.39	$6.39
10.	Erosion Control	119	s.f.	$0.10	$11.90
11.	Street Lights (Type A, 220' spacing, both sides)	2	l.f.	$12.09	$24.17
12.	Joint Trench	1	l.f.	$93.00	$93.00
13.	Traffic Signal Interconnect	1	l.f.	$57.00	$57.00
14.	6' Concrete Sidewalk	6	s.f.	$10.00	$60.00
			Subtotal		**$682.19**
	30% (surveys, design, inspection and contingency)				$204.66
			Grand Total per Foot		**$886.85**

Table F-7
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
Rio del Oro Major White Rock Road Developer Costs

Preliminary Developer Cost Per Linear Foot
98' R.O.W. (White Rock Road)
(4 Travel Lanes and Inside Landscaped Median)

	ITEM	QUANTITY	UNIT	JNIT PRICE	PER FT COST
1.	Subgrade Preparation	19.0	s.f	$0.15	$2.85
2.	Excavation	1.3	c.y.	$12.50	$16.25
3.	6" HMA (Type A)	0.7	tons	$66.00	$47.52
4.	17" Aggregate Base	0.8	c.y	$30.00	$24.90
5.	Curb & Gutter, Type 2 (Vertical Curb)	1.0	l.f.	$25.00	$25.00
6.	Median Curb, Type 5 (6" Barrier Curb)	0.0	l.f.	$15.00	$0.00
7.	Median Landscaping & Irrigation (turf & street trees)	0.0	s.f.	$5.57	$0.00
8.	Median Top Soil Import (18")	0.0	c.y.	$10.00	$0.00
9.	Signing & Striping	0.3	l.f.	$6.39	$1.92
10.	Erosion Control	50.0	s.f.	$0.10	$5.00
11.	Street Lights (Type A, 220' spacing)	1.0	l.f.	$12.09	$12.09
12.	Joint Trench	1.0	l.f.	$93.00	$93.00
13.	Traffic Signal Interconnect	1.0	l.f.	$57.00	$57.00
14.	6' Concrete Sidewalk	6.0	s.f.	$10.00	$60.00
			Subtotal		**$345.53**
	30% (surveys, design, inspection and contingency)				$103.66
			Grand Total per Foot		**$449.18**

Table F-8
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
White Rock Road Intersection Costs and Credits/Reimbursements

Preliminary Cost Per Each
6 x 4 Intersection

	ITEM	QUANTITY	UNIT	UNIT PRICE	COST
1.	Subgrade Preparation	152,810	s.f	$0.15	$22,921.50
2.	Excavation	8,355	c.y.	$12.50	$104,437.50
3.	6" HMA (Type A)	2,782	tons	$66.00	$183,620.25
4.	17" Aggregate Base	3,893	c.y	$30.00	$116,780.56
5.	5.5" Asphaltic Concrete Paving	1,997	tons	$66.00	$131,806.81
6.	13" Aggregate Base	2,411	c.y.	$30.00	$72,342.59
7.	Curb & Gutter, Type 2 (Vertical Curb)	3,152	l.f.	$25.00	$78,800.00
8.	Median Curb, Type 5 (6" Barrier Curb)	3,500	l.f.	$15.00	$52,500.00
9.	Handicap Ramp	16	ea	$3,700.00	$59,200.00
10.	Median Pedestrian Refuge	545	s.f.	$6.00	$3,270.00
11.	7' Sidewalk	980	s.f	$10.00	$9,800.00
12.	Median Landscaping	16,030	s.f.	$5.57	$89,303.17
13.	Cobble Fill	1,760	s.f.	$5.00	$8,800.00
14.	Signing & Striping	11,000	l.f.	$6.39	$70,338.03
15.	Erosion Control	152,810	s.f.	$0.10	$15,281.00
16.	Street Lights (Type A, 220' spacing, both sides)	8	ea	$6,000.00	$48,000.00
17.	Traffic Signal	1	ea	$320,000.00	$320,000.00
18.	Traffic Signal Interconnect	1,800	l.f.	$57.00	$102,600.00
			Subtotal		**$1,489,801.41**
	30% (surveys, design, inspection and contingency)				$446,940.42
				Grand Total	**$1,936,741.84**

Table F-9
Rio del Oro Specific Plan
Implementation Plan - Elliott Homes, Inc.
White Rock Road - Aerojet Portion Drainage Costs

TOTAL DRAINAGE COST PER 500 LF					
Item No.	**Item Description**	**Unit**	**Quantity**	**Unit Price**	**Credit Amount**
1	24" Pipe	LF	500.0	$ 185.00	$ 92,500.00
2	Drain Inlet	EA	2.0	$ 3,000.00	$ 6,000.00
3	Drain Inlet Laterals	LF	70.0	$ 90.00	$ 6,300.00
4	Manhole (Assume 60")	EA	1.0	$ 9,000.00	$ 9,000.00
				LF COST	**$ 227.60**

REIMBURSABLE DRAINAGE CREDITS PER LF (CITY COST)					
Item No.	**Item Description**	**Unit**	**Quantity**	**Unit Price**	**Credit Amount**
1	City Drainage Reimbursement	LF	1.0	$ 100.00	$ 100.00
				COST ESCALATION TO 2020 (15.59% INCREASE)	$ 15.59
				LF DRAINAGE CREDIT	**$ 115.59**

FOOTNOTES:

1. Based on Rancho Cordova Fee Program 2013 Update & WRR Phase 1 Teichert bids

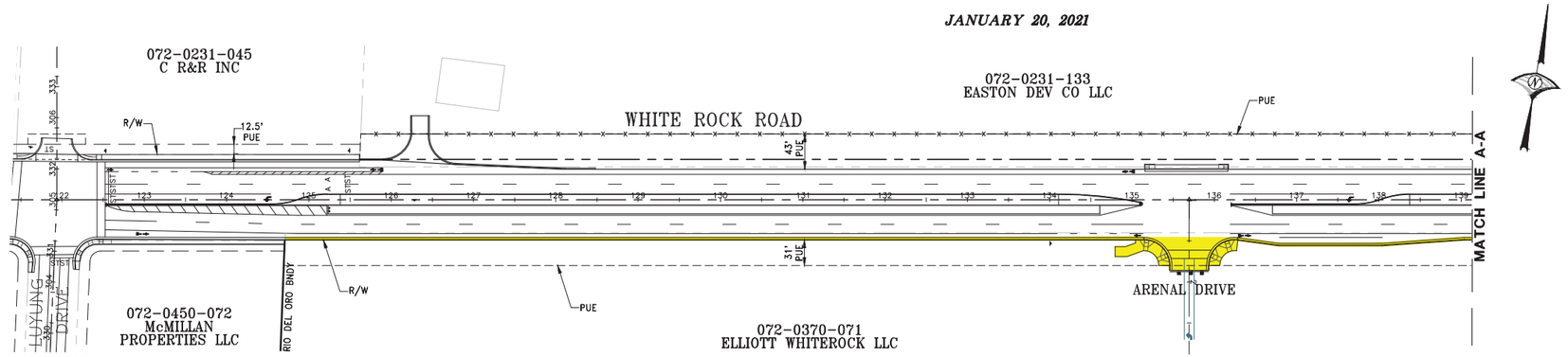
WHITE ROCK ROAD - SURFACE IMPROVEMENTS

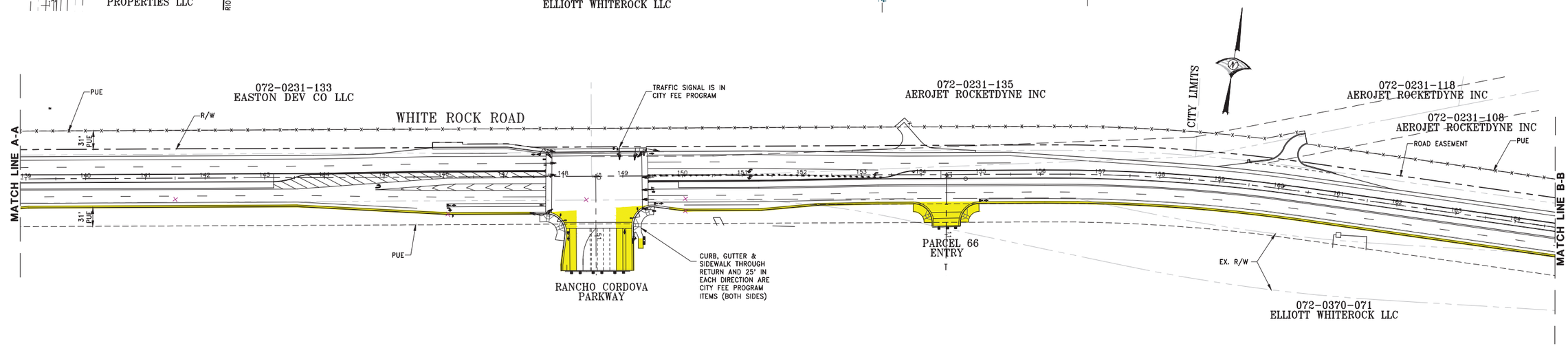
RIO DEL ORO - ELLIOTT PAY ITEMS

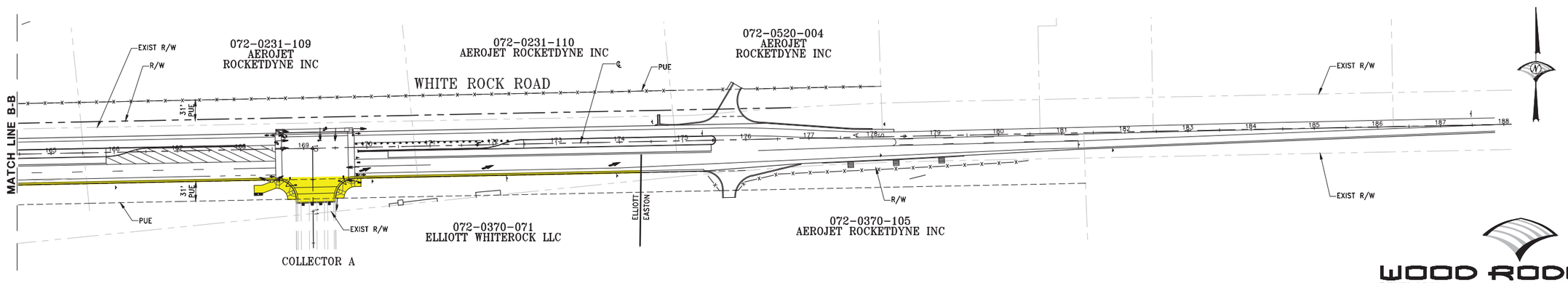
ELLIOTT HOMES

CITY OF RANCHO CORDOVA CALIFORNIA

JANUARY 20, 2021







LEGEND

- PUE
- EXIST R/W
- R/W
- ROAD EASEMENT
- ELLIOTT PAY ITEM

80' 40' 0 80'

SCALE: 1" = 80'

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Sacramento, CA 95816 Fax 916.341.7767

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MEMORANDUM

ITEM 10.3.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Nicholas Sosa, Associate Planner

SUBJECT: **GODDARD SCHOOL – TENTATIVE PARCEL MAP & MAJOR DESIGN REVIEW – PROJECT NO. PLND-0921-0008 & PLND-1121-0018 – LOCATED AT 3370 ZINFANDEL DRIVE; APN: 072-2360-041-0000**

PROPERTY OWNER:	**APPLICANT/DEVELOPER:**
Rancho Cordova Retirement Residence, LP Hawthorn Construction Group, LLC 2260 McGilchrist Street SE Salem, OR 97302	WSEE Holding LLC 1601 Merkley Ave, #1350 West Sacramento, CA 95691

PROJECT:	Goddard School TPM & DR
FILE:	PLND-0921-0008 & PLND-1121-0018
LOCATION:	3370 Zinfandel Drive
APN:	072-2360-041-0000
PLANNER:	Nicholas Sosa, Associate Planner

RECOMMENDATION

Determine the project exempt per Section 15315 (Minor Land Divisions) and Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning) of the CEQA Guidelines; and Adopt the Resolution for a Tentative Parcel Map and Major Design Review.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would determine the project exempt from further CEQA analysis and approve the Applicant's request to subdivide the property into 2 separate parcels (Parcel A & Parcel B) and would also allow for the construction of the Goddard School building and layout as proposed within the project plans.

BACKGROUND

The project site is an existing 4.281-acre property located at 3370 Zinfandel Drive and zoned Business and Professional Office (BP) within the Zinfandel Special Planning Area (ZSPA). The ZSPA was originally approved by Sacramento County on August 7, 2002 and was intended to permit infill development in a manner consistent with the General Plan that allows for mixed land use development including residential, industrial, office, commercial, public/quasi-public, and

recreational uses. Since the ZSPA was approved in 2002 under the Sacramento County Zoning Code, this code continues to be applicable when processing applications within the Special Planning Area.

Figure 1: Project Location



PROJECT DESCRIPTION & ANALYSIS

The Applicant has submitted two separate applications for the Goddard School project. These two applications have been combined and presented to City Council as one project to better portray the overall development. This project would be a re-location of their existing school located at 10710 Bear Hollow Drive (**See Figure 2**). Both applications have been reviewed by Staff and the analysis for each entitlement is provided below. No use permit is required with this application as the Goddard School caters to preschool and daycare services which is categorized as a commercial child day care facility which is allowed by right in this zoning designation.

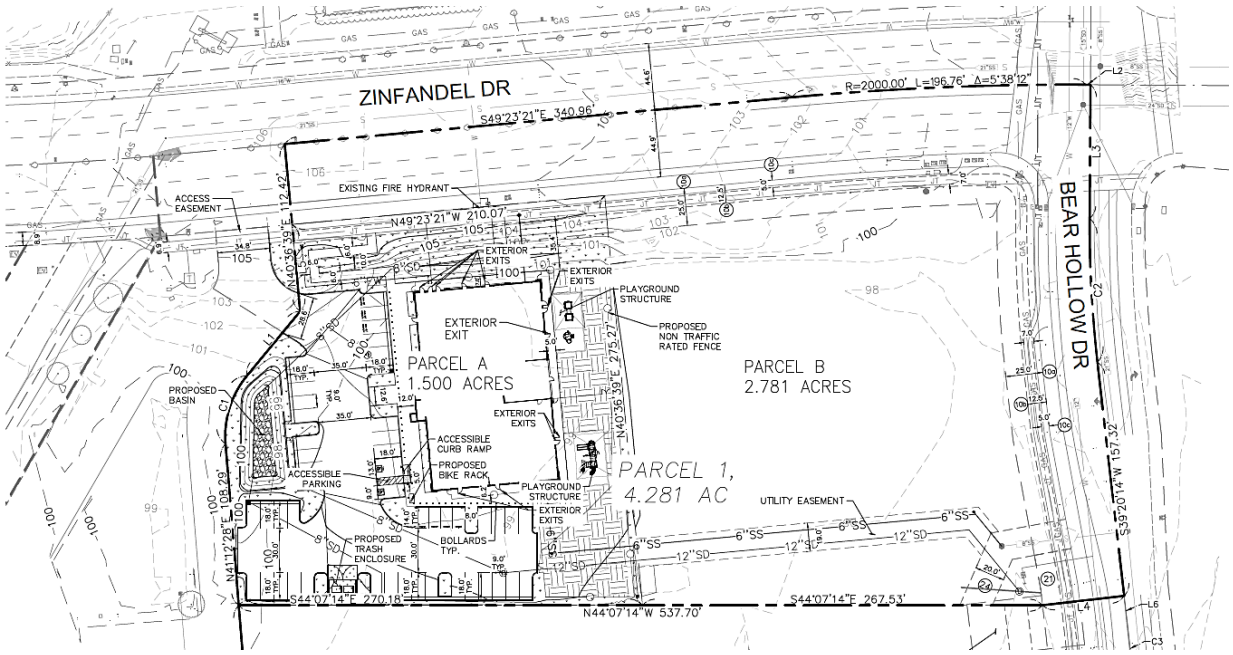
Figure 2: Goddard Relocation



TENTATIVE PARCEL MAP

The first application was received on September 19, 2021, for a Tentative Parcel Map to divide a +/-4.281 acre parcel into two separate parcels to separate the future Goddard School site from the adjacent vacant property. The proposed map shows the existing parcel (072-2360-041-0000) split into Parcel A at 1.500 acres and Parcel B at 2.781 acres. The future +/-10,457 SF Goddard School is proposed to be located on Parcel A while Parcel B is to remain vacant at this time (**See Figure 2**). The applicant has also provided an Access Agreement between Parcel A and the adjacent parcel to the northwest that is currently used as additional parking for the Blue Shield of California building across the bike trail.

Figure 2: Proposed Tentative Parcel Map



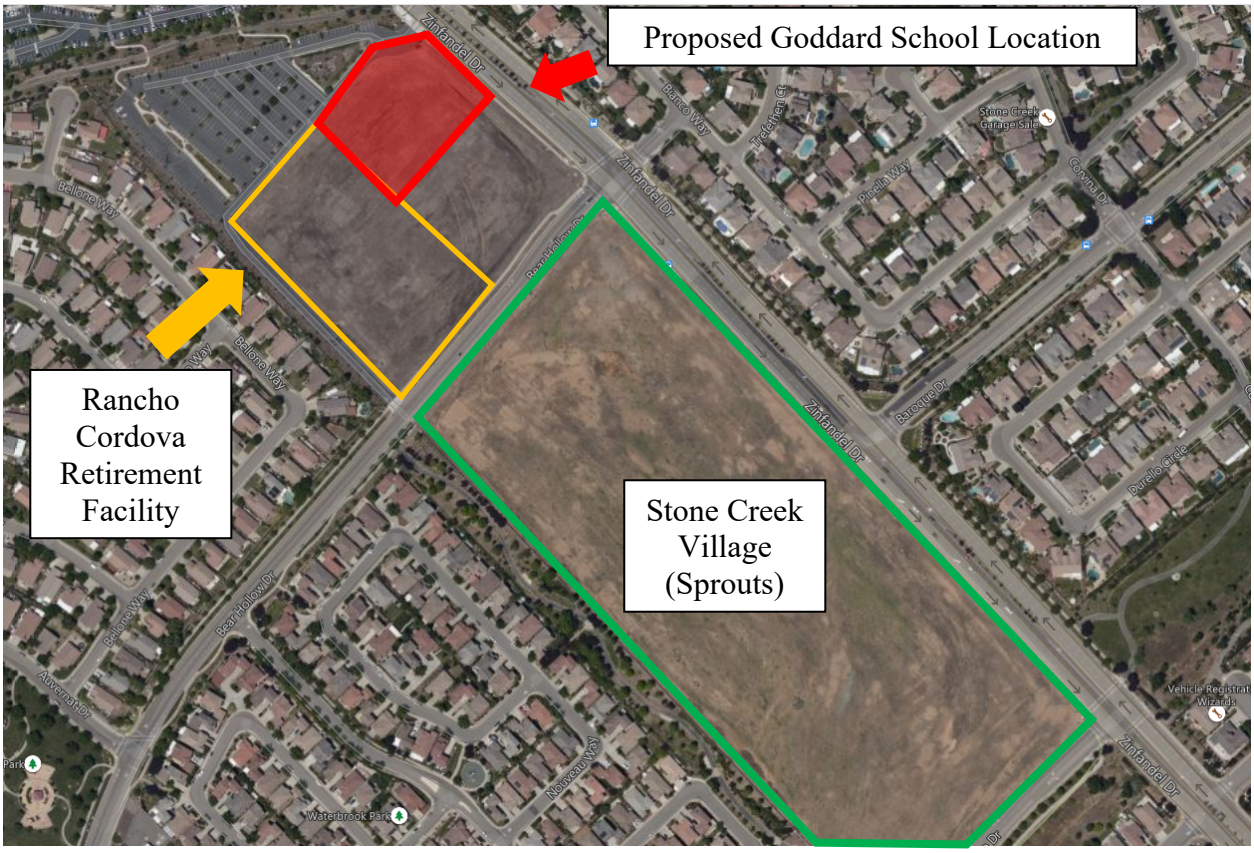
Surrounding Uses

The Goddard School will be located along Zinfandel Drive just north of Bear Hollow Drive. The project site is surrounded by the following uses.

Table 1: Surrounding Designations and Existing Uses

Location	Existing Use	General Plan Designation	Zoning Designation
Subject Site	Undeveloped lot	Office Mixed Use (OMU)	Business Professional Zinfandel Special Planning Area (BP ZSPA)
North	Blue Shield Overflow Parking Lot	Office Mixed Use (OMU)	Business Professional Zinfandel Special Planning Area (BP ZSPA)
East	Single Family Residential Subdivision	Low Density Residential (LDR)	Low Density Zinfandel Special Planning Area (LD ZSPA)
South	Stone Creek Village	Commercial Mixed Use (CMU)	Regional Commercial Zinfandel Special Planning Area (RC ZSPA)
West	Rancho Cordova Retirement Facility	Office Mixed Use (OMU)	Business Professional Zinfandel Special Planning Area (BP ZSPA)

Figure 3: Surrounding Uses Aerial Map



The two projects shown adjacent to the project site have not yet bet constructed. The Rancho Cordova Retirement Facility was approved in December of 2019 and is anticipated to start construction in Spring 2022. Stone Creek Village was approved October 18, 2021 and the commercial aspect of the project, which includes the Sprouts grocery store, is currently under construction.

Required permits and Regulatory Basis

According to the State Subdivision Map Act and Municipal Code, a parcel may be subdivided into multiple separate lots with a Parcel Map, guided by the following provisions:

1. Subdivision Map Act
2. RCMC Title 22, Land Development, provides the local authority under the Subdivision Map Act to subdivide land.
3. RCMC Title 23, Zoning

Title 22 - Land Development: Title 22 of the City of Rancho Cordova Municipal Code regulates land division and is intended to supplement and implement the Subdivision Map Act. The proposed project, as conditioned, is consistent with requirements and procedures of a tentative parcel map application.

FINDINGS & EVIDENCE

Section 66474 of the California Subdivision Map Act requires a City to deny approval of a tentative map, if any of the following findings are found to be true. In the case of the proposed map, none of the required findings were found to be true. The following evidence supports the map request:

A. **Finding:** That the proposed map is not consistent with applicable general and specific plans as specified in Section 65451.

   Evidence: The proposed Tentative Parcel Maps is consistent with both the General Plan and the Zinfandel Special Planning Area (ZSPA). The site is listed as Office Mixed Use (OMU) within the City's General Plan which encourages the integration commercial and/or residential use in conjunction with office use of a site. The ZSPA zoning designation is Business and Professional Office (BP). The proposed map will not affect the existing zoning designations of the two parcels and both parcels will continue to be consistent with the minimum lot sizes required for BP zoning as required by the 2003 Sacramento County Zoning Code.

B. **Finding:** That the design or improvement of the proposed subdivision is not consistent with applicable general and specific plans.

   Evidence: The design of the map is consistent with applicable OMU standards of the General Plan and the BP zoning of the Zinfandel Special Planning Area. The anticipated future development of the Goddard School within Parcel A of the project and the adjacent single-family homes, maintains the office mixed-use development that was intended by this zone and general plan designation.

C. **Finding:** That the site is not physically suitable for the type of development.

   Evidence: The site is physically suitable to subdivide. The existing +/-4.281-acre parcel will be split into two separate lots, Parcel A and Parcel B, however the resulting lots will continue to be consistent with required development standards for the BP zoning designation. Each new parcel will be supported by cross-lot access easement that allows access between parcels as well as to Zinfandel Drive that is recorded by the County. Both parcels will also have access to adequate utilities for future development. The map has also been conditioned to have reciprocal parking and access agreements between parcels to maintain the seamless circulation and adequate parking as originally approved.

D. **Finding:** That the site is not physically suitable for the proposed density of development.

   Evidence: The site is physically suitable for the proposed density of the development. The proposed Tentative Parcel Map is dividing the existing parcel in to two separate parcels. The two new parcels will continue to meet the minimum lot size requirements for the BP zoning designation.

E. **Finding:** That the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

   Evidence: The proposed design of the Tentative Parcel Map is not likely to cause any environmental damage. The site is currently undeveloped without any sensitive plant

and/or wildlife. The Tentative Parcel Map is only to subdivide the existing parcel into two separate parcels and will not affect the use or zoning of the parcels. Therefore, project will continue to be consistent with the approved EIR for the Zinfandel Special Planning Area and can be found exempt from environmental review pursuant to Section 15183 of the CEQA Guidelines.

F. **Finding:** That the design of the subdivision or the type of improvements is likely to cause serious public health problems.

Evidence: The subdivision of one parcel into two separate parcels would not cause any serious public health problems. The ingress from Zinfandel Drive to the new parcels is already existing and the overall project has been reviewed by Staff for any concerns regarding traffic. The subdivision would allow Goddard School to obtain Parcel A for the development of their building would not result in any future public health issues.

G. **Finding:** That the design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision. In this connection, the legislative body may approve a map if it finds that alternate easements, for access or for use, will be provided, and that these will be substantially equivalent to ones previously acquired by the public.

Evidence: No change is proposed with this subdivision and a condition has been placed on the project to note on the map that reciprocal access and parking between parcels shown hereon shall be granted/reserved prior to the sale and/or reconveyance of said parcels. All necessary easement have been required to be shown on the map for future development of the parcels.

MAJOR DESIGN REVIEW

The second application was received on November 12, 2021, for a Major Design Review for the construction of a new +/-10,457 SF single level building with 10 classrooms, multi-purpose room, administrative offices, a warming kitchen, approximately 11,100 SF of outdoor playground area, parking lot and trash enclosures. This new construction would be a re-location of the existing Goddard School currently located 10710 Bear Hollow Drive. The project site plan and circulation has also been reviewed as part of this design review.

Site Design

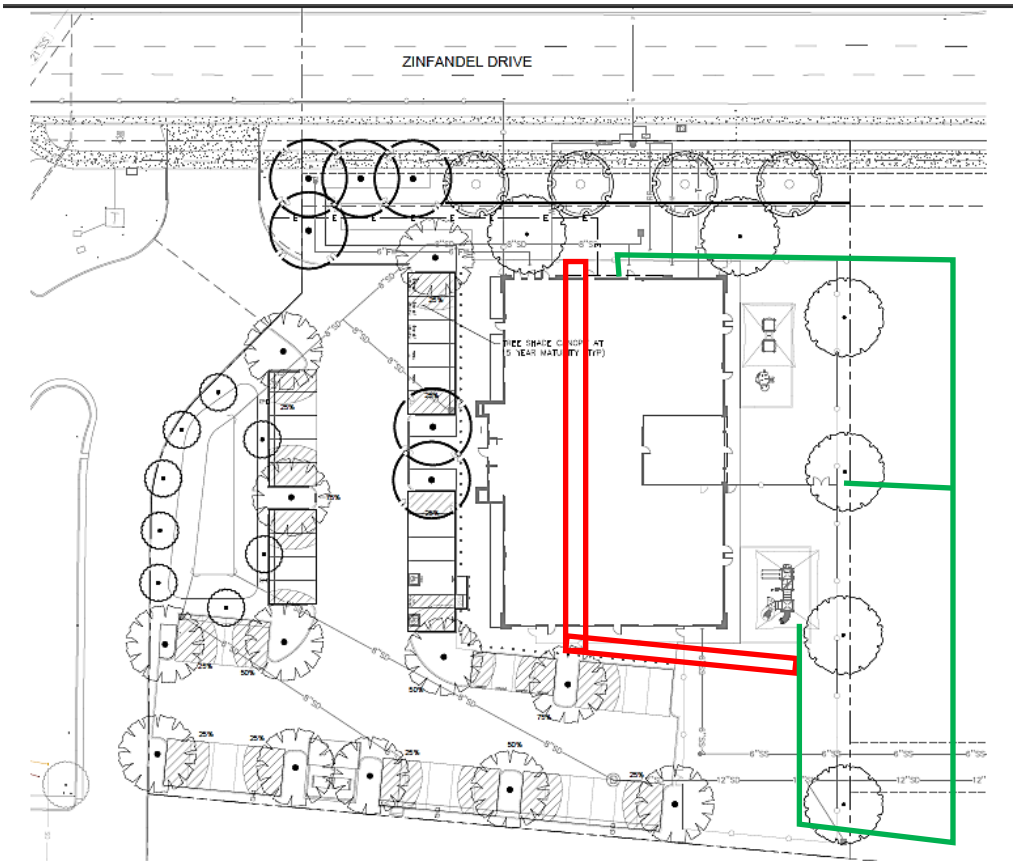
The proposed Goddard School is located along Zinfandel Drive with a right in, right out direct access entrance that is shared with the adjacent Blue Shield of California parking lot. The Applicant has also included a direct pedestrian connection from Zinfandel Drive to the main entrance of the facility. The Applicant worked directly with the Public Works Department providing a Trip Generation Memorandum that determined that given the existing school is already located less than ½ mile away, no new traffic flow would be generated from the proposed new facility and therefore no additional traffic study or analysis was necessary for the allowed use.

The proposed parking lot also provides adequate parking spaces on-site. The facility requires 1 space per employee (total of 22 employees) and 1 space for every 8 persons at facility capacity (168 children) which is a total of 43 required parking spaces. The proposed site design provides 48 spaces which is more than adequate parking for the facility.

The project site will be including wrought iron fencing surrounding a portion of the property. The proposed fencing will be 6' in height and will surround the outdoor play area as well as the sides of the buildings to enclose the classroom exits. The wrought iron material was chosen to allow visibility through the fence for staff to see on the other side of the fence for any potential danger (**See Figure 3 in Green**). A 4' wrought iron fence will also be installed internally to bisect the playground area into separate areas for different age levels.

As an added safety measure to the property, the Applicant has included Traffic Guard bollards that have been tested for low impact vehicle protection. Bollards will be included on the north and west sides of the building along the parking areas (**See Figure 3 in Red**). Bollards have not been included along Zinfandel Drive as these bollards are only intended to protect the building at parking lot speeds. However, the site plan includes a row of trees along Zinfandel Drive that not only provided shade for pedestrians but also a layer of protection from vehicles traveling along Zinfandel Drive.

Figure 4: Goddard School Site Plan



Building Design

The applicant has included architectural elevations with their submittal. The building is proposed to be a flat roof building with parapet walls designed to screen any roof-mounted mechanical equipment as required by the Rancho Cordova Municipal Code. A tower element was added to the front main entrance to highlight the entry while also providing a variation in roofline for added visual interest. The design includes a variety of exterior finishes such as

stone veneer, steel awnings, metal roofing, and cornices for added detail (**See Figures 5-8 for building elevations**)

Figure 5: North Elevation facing Blue Shield Parking Lot

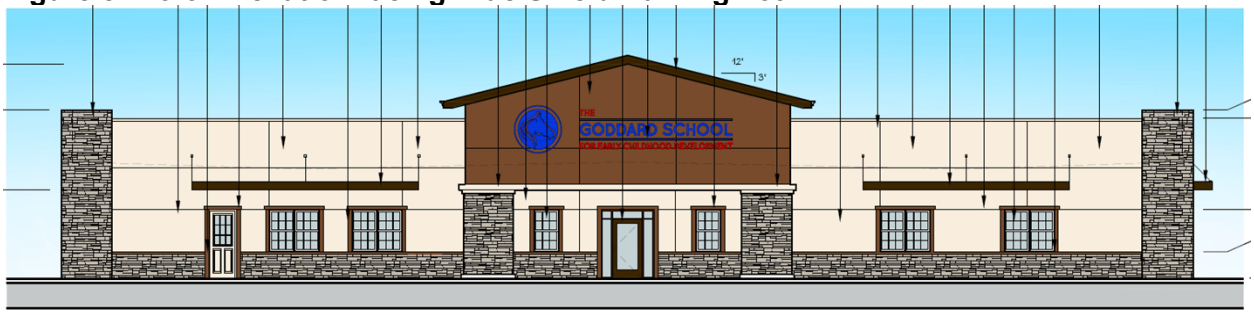


Figure 6: East Elevation Facing Zinfandel Drive

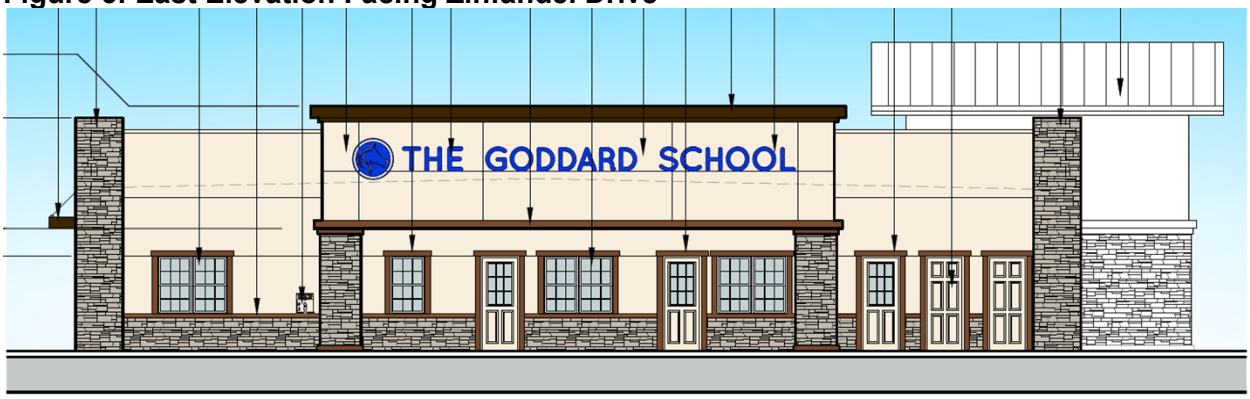


Figure 7: West Elevation facing future Retirement Facility

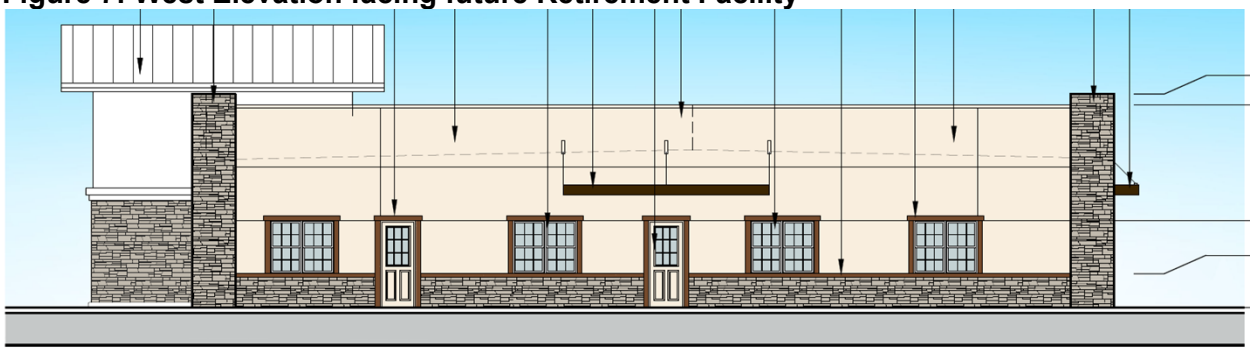
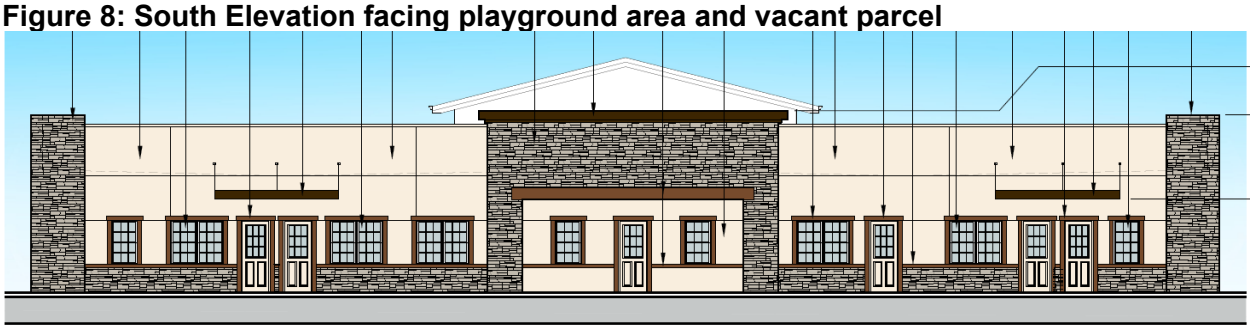


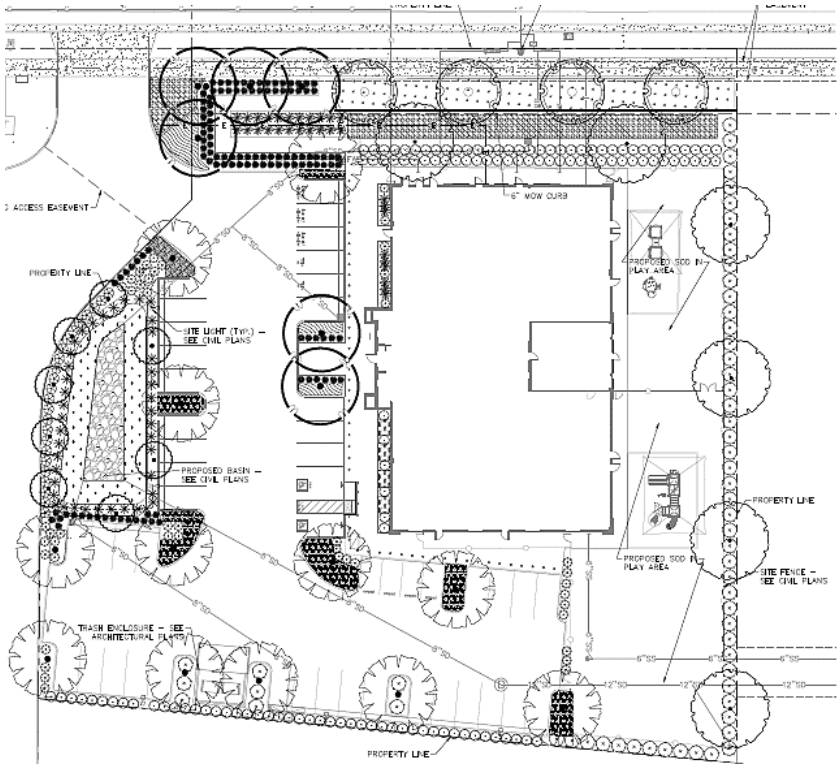
Figure 8: South Elevation facing playground area and vacant parcel



Site Landscaping

As part of the submitted project plans, the Applicant has provided preliminary landscape plans for the project site. The preliminary plans include landscape surrounding the entire property boundary with a significant amount of landscaping along Zinfandel Drive and a stormwater basin at the north end of the property. The plant schedule for the site includes a colorful and functional variety of trees, shrubs and groundcover that will enhance the visual aesthetic of the property while also serving as a barrier along Zinfandel Drive and as a natural filtration system for the stormwater basin. The plan includes trees that provide the minimum 50% shading requirement for parking areas as well as shrubs along the property boundaries that also soften the look of the 6' wrought iron security fencing surrounding the property making the site more inviting and compatible with the future adjacent retirement facility and the surrounding single-family homes (See Figure 9). Additional details regarding the landscaping of the site, including plant species and size, can be seen in the project plans (Attachment 2).

Figure 18: Preliminary Landscape Plan



DESIGN REVIEW FINDINGS & EVIDENCE

Approval of the Major Design Review, subject to the Design Review Package (Attachment 2) and the Conditions of Approval (Attachment 3) 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 proposed Goddard School is located within a Office Mixed Use (OMU) designation within the City's General Plan. The OMU designation encourages the integration of commercial and office with residential uses. The project is also located within the Business and Professional Office use (BP) zone of the Zinfandel Special Planning Area (ZSPA). The Goddard School is considered a child day care facility and this use in conjunction with the surrounding single-family homes in the area, is consistent with the mixed-use objectives of both the General Plan and ZSPA. The building has been proposed directly along Zinfandel Drive with significant landscaping allowing the building to be the focus of the site with parking areas minimized in visibility, which is consistent with the efforts of the City's 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 proposed facility will be a child day care facility for children ages 6 weeks to 6 years old. The proposed architecture, site design, and landscape is suitable as it provides an inviting building, softened with a variety of landscaping, as well as easy access from Zinfandel Drive for parents to drop off/pick up their children. The construction of the facility with the additional landscaping will enhance the character of the neighborhood and the community by developing the site which currently lays vacant along Zinfandel Drive.

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 design has considered the surrounding homes as well as the future retirement facility proposed on the adjacent parcel in order to provide a compatible design concept for the area. The project includes a soft main body color with brown accent colors and stone veneer as well as awnings and a pitched roof at the entry that is consistent both with homes in the area as well as the future Sprouts shopping center currently under construction across Bear Hollow Drive.

D. **Finding:** The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The Applicant worked with the Public Works Department regarding traffic analysis and provided a Trip Generation Memorandum for the operation of the facility. This facility is a relocation of an existing facility that is less than ½ mile away. Given the results of the Trip Generation Memorandum and the proximity of the existing facility, it was determined that there would not be a significant increase in traffic in the area and that no further traffic analysis was necessary for the allowed use. In addition, the Applicant has provided direct pedestrian access to the public right of way as well as adequate parking on-site.

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 Goddard School is considered a commercial child care facility however the use is compatible with the office use to the north, the surrounding single-family homes in the area and the future development of the retirement facility on the adjacent parcel.

ZONING CODE

The project is located within the Zinfandel Special Planning Area (ZSPA) and is zoned Business and Professional Office (BP) which is consistent with the OMU designation of the General Plan. The BP zone refers to the allowable uses and standards provided within the commercial land use table within the Sacramento County Zoning Code. The use is allowed by right within this zone and the project has been constructed consistent with the development standards required by the Sacramento County Code.

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 the childcare facility. The development of building and the property from vacant land to a business will also provide an additional positive impact through the increase in property taxes on the site as well as within the surrounding area.

ENVIRONMENTAL

The Tentative Parcel Map associated with the Goddard School would be exempt from CEQA review under CEQA State Guidelines Section 15315. This exempts from CEQA projects that involve the division of property in urbanized areas zoned for residential, commercial, or industrial use into four or fewer parcels when the division is in conformance with the General Plan and zoning, no variances or exceptions are required, all services and access to the proposed parcels to local standards are available, the parcel was not involved in a division of a larger parcel within the previous 2 years, and the parcel does not have an average slope greater than 20 percent. The Goddard School Tentative Parcel Map involves dividing an existing 3.37-acre parcel into two separate parcels of Parcel 1 (1.5 acres) and Parcel 2 (1.87 acres). As this Tentative Subdivision Map divides property located in an existing urban area into two parcels, is in conformance with the General Plan, including the Zinfandel Special Planning Area, and zoning, requires no variances or exceptions, has available all services and access to the proposed parcels to local standards, and the parcel has not been involved in a division of a larger parcel within the previous 2 years, it is exempt from CEQA review. The project is exempt and no environmental document pursuant to CEQA is required.

The Major Design Review associated with the Goddard School would be exempt from CEQA review under CEQA State Guidelines Section 15183. This exempts from CEQA projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. The Goddard School Major Design Review involves development of a 10,457 square foot single level building with 10 classrooms along with outdoor playground areas, parking lot, and a trash enclosure located within the Villages of Zinfandel

Special Planning Area. Approximately 11,100 square feet of playground space will be constructed in two separate playground areas. The development also includes landscaping and drainage improvements. The business park site was identified in the Villages of Zinfandel Special Planning Area EIR. As this Major Design Review is consistent with the Special Plan and the environmental documentation prepared for the Special Plan, it is exempt from CEQA review. So long as the project does not have any project-specific significant effects peculiar to the Major Design Review and not identified in the previous environmental documentation, the project is exempt and no environmental document pursuant to CEQA is required.

RECOMMENDED MOTIONS

Staff recommends that the City Council find the project to be in compliance with the California Environmental Quality Act (CEQA) per section 15315 Minor Land Divisions and 15183 Projects Consistent with a Community Plan, General Plan, or Zoning and adopt the resolution approving the Tentative Parcel Map and Major Design Review for the Goddard School (PLND-0921-0008 & PLND-1121-0018), subject to the findings, Project Plans (Attachment 2) and Conditions of Approval (Attachment 3).

ATTACHMENT(S)

1. Resolution
2. Exhibit A to the Resolution - Project Plans
3. Exhibit B to the Resolution - Conditions of Approval
4. 500’ Radius Map and Labels

CITY OF RANCHO CORDOVA

CITY COUNCIL RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING A TENTATIVE PARCEL MAP AND MAJOR DESIGN REVIEW FOR THE GODDARD SCHOOL PROJECT NO. PLND-0921-0008 AND PLND-1121-0018

WHEREAS, WSEE Holding LLC, (hereinafter referred to as Applicant) filed two separate applications for a Tentative Parcel Map and a Major Design Review approval for the Goddard School project; and

WHEREAS, the City Council is the appropriate authority to hear and take action on this project; and

WHEREAS, the project site is located at 3370 Zinfandel Drive and includes a Tentative Parcel Map to subdivide the existing +/-4.281-acre parcel into two parcels, Parcel A at 1.5 acres and Parcel B at +/-2.781-acres; and

WHEREAS, the project also includes a Major Design Review for a new +/-10,457 SF single level building with outdoor playground areas and parking lot improvements; and

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 15315 (Minor Land Divisions) and Section 15183 (Projects Consistent with a Community Plan, General Plan or Zoning) are adequate exemptions according to the Guidelines of the California Environmental Quality Act.

   A. **Finding**: The project has been analyzed and is exempt per California Environmental Quality Act Guidelines Section 15315 “Minor Land Divisions” and Section 15183 “Projects Consistent with the Community Plan, General Plan or Zoning”.

      Evidence: The Tentative Parcel Map associated with the Goddard School would be exempt from CEQA review under CEQA State Guidelines Section 15315. This exempts from CEQA projects that involve the division of property in urbanized areas zoned for residential, commercial, or industrial use into four or fewer parcels when the division is in conformance with the General Plan and zoning, no variances or exceptions are required, all services and access to the proposed parcels to local standards are available, the parcel was not involved in a division of a larger parcel within the previous 2 years, and the parcel does not have an average slope greater than 20 percent. The Goddard School Tentative Parcel Map involves dividing an existing 3.37-acre parcel into two separate parcels of Parcel 1 (1.5 acres) and Parcel 2 (1.87 acres). As this Tentative Subdivision Map divides property located in an existing urban area into two parcels, is in conformance with the General Plan, including the Zinfandel Special Planning Area, and zoning, requires no variances or exceptions, has available all services and access to the

proposed parcels to local standards, and the parcel has not been involved in a division of a larger parcel within the previous 2 years, it is exempt from CEQA review. The project is exempt and no environmental document pursuant to CEQA is required.

The Major Design Review associated with the Goddard School would be exempt from CEQA review under CEQA State Guidelines Section 15183. This exempts from CEQA projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. The Goddard School Major Design Review involves development of a 10,457 square foot single level building with 10 classrooms along with outdoor playground areas, parking lot, and a trash enclosure located within the Villages of Zinfandel Special Planning Area. Approximately 11,100 square feet of playground space will be constructed in two separate playground areas. The development also includes landscaping and drainage improvements. The business park site was identified in the Villages of Zinfandel Special Planning Area EIR. As this Major Design Review is consistent with the Special Plan and the environmental documentation prepared for the Special Plan, it is exempt from CEQA review. So long as the project does not have any project-specific significant effects peculiar to the Major Design Review and not identified in the previous environmental documentation, the project is exempt and no environmental document pursuant to CEQA is required.

2. Section 66474 of the California Subdivision Map Act requires a City to deny approval of a tentative map, if any of the following findings are found to be true. In the case of the proposed map, none of the required findings were found to be true. The following evidence supports the map request:

   A. **Finding:** That the proposed map is not consistent with applicable general and specific plans as specified in Section 65451.

      Evidence: The proposed Tentative Parcel Maps is consistent with both the General Plan and the Zinfandel Special Planning Area (ZSPA). The site is listed as Office Mixed Use (OMU) within the City's General Plan which encourages the integration commercial and/or residential use in conjunction with office use of a site. The ZSPA zoning designation is Business and Professional Office (BP). The proposed map will not affect the existing zoning designations of the two parcels and both parcels will continue to be consistent with the minimum lot sizes required for BP zoning as required by the 2003 Sacramento County Zoning Code.

   B. **Finding:** That the design or improvement of the proposed subdivision is not consistent with applicable general and specific plans.

      Evidence: The design of the map is consistent with applicable OMU standards of the General Plan and the BP zoning of the Zinfandel Special Planning Area. The anticipated future development of the Goddard School within Parcel A of the project and the adjacent single-family homes, maintains the office mixed-use development that was intended by this zone and general plan designation.

   C. **Finding:** That the site is not physically suitable for the type of development.

Evidence: The site is physically suitable to subdivide. The existing +/-4.281-acre parcel will be split into two separate lots, Parcel A and Parcel B, however the resulting lots will continue to be consistent with required development standards for the BP zoning designation. Each new parcel will be supported by cross-lot access easement that allows access between parcels as well as to Zinfandel Drive that is recorded by the County. Both parcels will also have access to adequate utilities for future development. The map has also been conditioned to have reciprocal parking and access agreements between parcels to maintain the seamless circulation and adequate parking as originally approved.

D. **Finding:** That the site is not physically suitable for the proposed density of development.

Evidence: The site is physically suitable for the proposed density of the development. The proposed Tentative Parcel Map is dividing the existing parcel in to two separate parcels. The two new parcels will continue to meet the minimum lot size requirements for the BP zoning designation.

E. **Finding:** That the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

Evidence: The proposed design of the Tentative Parcel Map is not likely to cause any environmental damage. The site is currently undeveloped without any sensitive plant and/or wildlife. The Tentative Parcel Map is only to subdivide the existing parcel into two separate parcels and will not affect the use or zoning of the parcels. Therefore, project will continue to be consistent with the approved EIR for the Zinfandel Special Planning Area and can be found exempt from environmental review pursuant to Section 15183 of the CEQA Guidelines.

F. **Finding:** That the design of the subdivision or the type of improvements is likely to cause serious public health problems.

Evidence: The subdivision of one parcel into two separate parcels would not cause any serious public health problems. The ingress from Zinfandel Drive to the new parcels is already existing and the overall project has been reviewed by Staff for any concerns regarding traffic. The subdivision would allow Goddard School to obtain Parcel A for the development of their building would not result in any future public health issues.

G. **Finding:** That the design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision. In this connection, the legislative body may approve a map if it finds that alternate easements, for access or for use, will be provided, and that these will be substantially equivalent to ones previously acquired by the public.

Evidence: No change is proposed with this subdivision and a condition has been placed on the project to note on the map that reciprocal access and parking between parcels shown hereon shall be granted/reserved prior to the sale and/or reconveyance of said parcels. All necessary easement have been required to be shown on the map for future development of the parcels

3. 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 proposed Goddard School is located within a Office Mixed Use (OMU) designation within the City's General Plan. The OMU designation encourages the integration of commercial and office with residential uses. The project is also located within the Business and Professional Office use (BP) zone of the Zinfandel Special Planning Area (ZSPA). The Goddard School is considered a child day care facility and this use in conjunction with the surrounding single-family homes in the area, is consistent with the mixed-use objectives of both the General Plan and ZSPA. The building has been proposed directly along Zinfandel Drive with significant landscaping allowing the building to be the focus of the site with parking areas minimized in visibility, which is consistent with the efforts of the City's 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 proposed facility will be a child day care facility for children ages 6 weeks to 6 years old. The proposed architecture, site design, and landscape is suitable as it provides an inviting building, softened with a variety of landscaping, as well as easy access from Zinfandel Drive for parents to drop off/pick up their children. The construction of the facility with the additional landscaping will enhance the character of the neighborhood and the community by developing the site which currently lays vacant along Zinfandel Drive.

   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 design has considered the surrounding homes as well as the future retirement facility proposed on the adjacent parcel in order to provide a compatible design concept for the area. The project includes a soft main body color with brown accent colors and stone veneer as well as awnings and a pitched roof at the entry that is consistent both with homes in the area as well as the future Sprouts shopping center currently under construction across Bear Hollow Drive.

   D. **Finding:** The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

      Evidence: The Applicant worked with the Public Works Department regarding traffic analysis and provided a Trip Generation Memorandum for the operation of the facility. This facility is a relocation of an existing facility that is less than ½ mile away. Given the

results of the Trip Generation Memorandum and the proximity of the existing facility, it was determined that there would not be a significant increase in traffic in the area and that no further traffic analysis was necessary for the allowed use. In addition, the Applicant has provided direct pedestrian access to the public right of way as well as adequate parking on-site.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

Project Description – Proposed Goddard School

Property information
Address: 3370 Zinfandel Dr. Rancho Cordova, CA 95670
APN – 072-2360-041-0000
Application – Major Design Review Application

Applicant
WSEE Holding LLC
1601 Merkley Ave #1350
West Sacramento

Owner's Representative
Andrew Hinman
A Hinman Construction and Consulting LLC
m: 760.217.5449
andy@ahinmancc.com

Project Background

The applicant currently operates the Goddard School in Rancho Cordova, CA and will be moving into this new Goddard school to own and operate.

The Goddard School is a franchised early childhood development center. The franchisor of The Goddard School is Goddard Systems, Inc. (GSI).

Goddard Systems Inc.

GSI, the franchisor of The Goddard School, has more than 550 locations in 37 states and has been in business since 1988. There are currently 14 centers either open or in development in California. The Goddard School core curriculum emphasizes early childhood development and incorporates enrichment programs in chess, coding, fitness, foreign languages, music, robotics, sign languages, yoga and more. The Goddard School Franchise is consistently named one of the top childcare franchises in the United States by Entrepreneur magazine.

A key factor that sets The Goddard School apart from other franchise system childcare centers is that they require there to be an "owner-on-site." Other franchises will sell multiple licenses to a franchisee and let them have an onsite manager. Requiring an "owner-on-site" is an inherently better model as the business is being managed by the actual owner rather than a paid employee. Additional licenses will not be sold to the franchisee unless their business meets the high-quality brand standards of the franchise.

Site Selection

The following factors are the reason that the Goddard School franchise has identified this as an excellent site for one of their locations.

- Commercial location close to a high density of residential.
- Excellent demographics for families with children under the age 5.

- Close proximity to Zinfandel Dr., a major thoroughfare.
- The use of childcare works in this location with no negative impacts to the neighboring properties as it's a permitted use.

Proposed Use

The proposed building is +-10,442sf. The school is proposed to have 168 children from the ages of 6 weeks through 6 years old. If there is a demand for school age children for after-school that may be included in the school's program. There will be 22 staff when the school is at full capacity. The floor plan is based on the GSI standards as well as CA childcare licensing regulations. Included in the interior space will be:

- Secured front entrance with biometrics entrance device for parents
- 10 classrooms designed to meet the childcare requirements for the corresponding age group
- Large multi-purpose room
- Owner's and Director's office
- Warming Kitchen with pantry for reheating lunches brought for the children by the parents.
- Staff work room
- Adult restrooms
- Service rooms such as a janitor's closet, IT closet, laundry and storage

There is approximately +-11,100 square feet of playground space proposed. There will be 2 separate playgrounds areas. The playgrounds will have playground structures and are separated by age group as required by the state regulations.

The hours of operation for the center are from 7am – 6pm, Monday through Friday. The center will typically be closed on the weekends and holidays. On occasion evening or weekend events may be held at the school. Events will be planned to accommodate the number of families that can be parked on site.

Building Elevations

The building is a flat roof building with parapet walls to screen the HVAC equipment. A tower element was added at the front entrance to define the entrance and allow for building signage. The parapet walls on the corner of the building were elevated to give the roof line greater interest.

The exterior finishes blend well together, are aesthetically pleasing and include stucco, stone veneer, steel awnings, standing seam metal roof and textured cornice around top of the parapet.

Site Design

The site is located south off Zinfandel Drive between International Drive and Bear Hollow Drive. The design of the site strategically utilizes all the property.

The building was situated on the site to create an adequate number of parking spaces along the building so that parents can park their car and enter the building without crossing a drive aisle.

A wrought iron fence is used around the playgrounds as well as the building to ensure that classroom exits are contained for safety and security. The one infant room door on the front of the building is not fenced but will be protected with delayed egress panic bars.

Parent Drop-off and Pick-up

Drop-off at the school would occur in the morning between 7:00 – 9:00 AM. Standard pick-up would be from 4:00 PM – 6:00 PM. Some children will leave earlier than 4:00 PM if they are registered as part-time. The student drop-off process includes parents parking their car, taking their children inside the facility to sign them in, and walking their children to their classroom. This entire process is expected to take 5-10 minutes.

For pick-up, parents must follow a similar process: park their car, pick their child up at their classroom, and sign the child out. Again, this process would take about 5-10 minutes. Student pick-ups are staggered between the hours of 4:00 – 6:00 PM, but about 20-30% of students will have already been picked up before this period because they are part-time.

Playgrounds

Below are photos of the standard GSI playgrounds. The playgrounds are appropriately designed for the corresponding age groups. They are designed with integral shade structures and a poured-in-place rubber safety surfacing to meet the fall zone requirements for state childcare licensing. They are designed in primary colors to be visually stimulating to children. The safety surfacing is a tan color to be resistant to fading due to ultraviolet light.

Preschool Playground



Infant/Toddler Playground

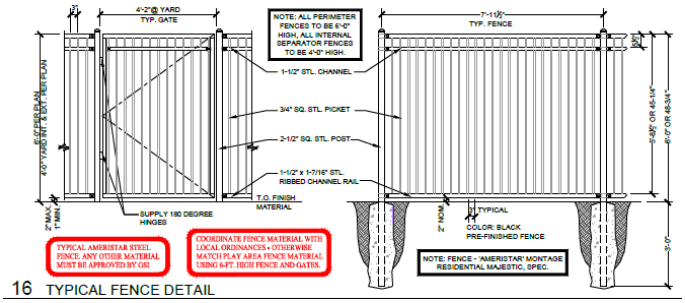


Fencing

Fencing is critical at a childcare center. Fencing is proposed around the playgrounds as well as the sides of the building to enclose the classroom exits. The proposed fencing is 6’ tall around the perimeter for security. The interior separator fencing is the same as the perimeter fencing but only 4’ tall. The fencing was chosen as one that you can see through for security. Rather than using a privacy fence, the wrought iron style fence was selected so that teachers can see the other side of the fence.

The fencing is made by Ameristar and is a powder coated steel fence with a lifetime warranty to reduce the maintenance to keep the fence looking attractive. It is designed with a flush top and bottom rail to be safe for children.





Car Protection

GSI has a requirement for car protection of their buildings. The measures have been put in place for the safety of the children. GSI specifies Traffic Guard bollards that have been tested to meet ASTM standard FM3016 for low impact vehicle protection. GSI requirements meet the most current standard to meet top quality safety standards. Below is a picture of the Bollards. They can be made in any color. This photo is just for reference.

Bollards are shown on the north and west sides of the building along the parking areas. Bollards are used in these locations because they are meant to stop head on collisions at parking lot speeds.




ahc2
A·HINMAN
construction and consulting

TENTATIVE PARCEL MAP NO. XXX-XXX

IN THE CITY OF RANCHO CORDOVA COUNTY OF SACRAMENTO
STATE OF CALIFORNIA
A.P. NO.: XXX-XXX-X
JANUARY 2022

LEGAL DESCRIPTION:

THE SURVEYED PROPERTY SHOWN HEREON IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF SACRAMENTO, CITY OF RANCHO CORDOVA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

PARCEL 1, AS SHOWN ON PARCEL MAP SUBDIVISION NO. FM-2020-004-01, FILED JUNE 8, 2020 IN BOOK 241 OF PARCEL MAPS, AT PAGE 5, SACRAMENTO COUNTY RECORDS.

RESERVING THEREFROM A NON-EXCLUSIVE ACCESS EASEMENT AND A NON-EXCLUSIVE UNDERGROUND UTILITY EASEMENT FOR THE BENEFIT OF PARCEL 2, AS SHOWN ON PARCEL MAP SUBDIVISION NO. FM-2020-004-01, FILED JUNE 8, 2020 IN BOOK 241 OF PARCEL MAPS, AT PAGE 5, SACRAMENTO COUNTY RECORDS, AS MORE PARTICULARLY DESCRIBED IN THAT CERTAIN DECLARATION OF ACCESS, FIRE ACCESS, UTILITY AND FIRE ACCESS ROADWAY MAINTENANCE EASEMENTS, RECORDED JUNE 1, 2020, BOOK 20200601, PAGE 645, OF OFFICIAL RECORDS.

PARCEL TWO:

A NON-EXCLUSIVE ACCESS EASEMENT AND A NON-EXCLUSIVE UNDERGROUND UTILITY EASEMENT BOTH ON, OVER AND ACROSS THAT PORTION OF PARCEL 2, AS SHOWN ON PARCEL MAP SUBDIVISION NO. FM-2020-004-01, FILED JUNE 8, 2020 IN BOOK 241 OF PARCEL MAPS, AT PAGE 5, SACRAMENTO COUNTY RECORDS, AS MORE PARTICULARLY DESCRIBED IN THAT CERTAIN DECLARATION OF ACCESS, FIRE ACCESS, UTILITY AND FIRE ACCESS ROADWAY MAINTENANCE EASEMENTS, RECORDED JUNE 1, 2020, BOOK 20200601, PAGE 645, OF OFFICIAL RECORDS.

APN: 072-2360-041-0000

NOTES:

THIS MAP WAS PREPARED IN ACCORDANCE WITH THE PRELIMINARY REPORT ISSUED BY FIDELITY NATIONAL TITLE COMPANY, TITLE NO. FSSE-FTO2000663-KD AMENDMENT F, DATED JULY 14, 2021 AND DEPICTS THE REAL PROPERTY AND PLOTTABLE EXCEPTIONS DESCRIBED THEREIN. EXCEPTIONS OTHER THAN EASEMENTS, SERVITUDES AND RIGHTS OF WAY, AS SPECIFIED IN THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, ARE BEYOND THE SCOPE OF THIS SURVEY AND ARE NOT REPRESENTED HEREON. EASEMENTS, SERVITUDES AND RIGHTS OF WAY ARE DESIGNATED BELOW WITH THE CORRESPONDING NUMBER FROM THE EXCEPTIONS LISTED IN SAID PRELIMINARY REPORT.

EXCEPTIONS:

(6) WATER RIGHTS, CLAIMS OR TITLE TO WATER (BLANKET IN NATURE).

(7) AGREEMENT PER BOOK 20000824, PAGE 1286, O.R.S.C. (BLANKET IN NATURE).

(8) AGREEMENT PER BOOK 20030404, PAGE 11, O.R.S.C. (BLANKET IN NATURE).

(9) DEVELOPMENT AGREEMENT PER BOOK 20030606, PAGE 877 AND BOOK 20070717, PAGE 1286, O.R.S.C. (BLANKET IN NATURE).

(10a) PEDESTRIAN EASEMENT PER BOOK 317 OF MAPS, AT PAGE 7 (PLOTTED).

(10b) PUBLIC UTILITY EASEMENT PER BOOK 317 OF MAPS, AT PAGE 7 (PLOTTED).

(10c) CENTRALIZED MAIL DELIVERY EASEMENT PER BOOK 317 OF MAPS, AT PAGE 7 (PLOTTED).

(11) NOTES, RECITALS, LEGENDS AND/OR CONDITIONS PER BOOK 317 OF MAPS, AT PAGE 7 (BLANKET IN NATURE).

(12) AVIGATION EASEMENT PER BOOK 20050526, PAGE 184, O.R.S.C. (BLANKET IN NATURE).

(13) PROPERTY LIMITATIONS, RESTRICTIONS, COVENANTS AND CONDITIONS PER BOOK 20150310, PAGE 793, AND PARTIAL REVOCATION OF USE RESTRICTIONS PER INSTRUMENT NO. 202002260971, O.R.S.C. (BLANKET IN NATURE).

(16) DECLARATION OF COVENANTS PER BOOK 20150728, PAGE 1355, O.R.S.C. (BLANKET IN NATURE).

(17) NOTES, RECITALS, LEGENDS AND/OR CONDITIONS PER BOOK 226 OF PARCEL MAPS, AT PAGE 3 (BLANKET IN NATURE).

(18) DECLARATION OF ACCESS EASEMENTS PER BOOK 20160330, PAGE 1232, O.R.S.C. (NOT ON SURVEYED PROPERTY).

(21) DECLARATION OF ACCESS, FIRE ACCESS, UTILITY AND FIRE ACCESS ROADWAY MAINTENANCE EASEMENTS PER DOCUMENT# 202006010645, O.R.S.C. (PLOTTED).

(23) EASEMENTS DELINEATED ON OR OFFERED FOR DEDICATION ON BOOK 241 OF PARCEL MAPS, PAGE 5 (EASEMENTS OFFERED FOR DEDICATION ARE NOT ON THE SURVEYED PROPERTY. SEE EXCEPTIONS 10a, 10b AND 10c FOR DELINEATED EASEMENTS).

(24) EASEMENT FOR SEWER PER DOCUMENT# 202008051516, O.R.S.C. (PLOTTED).

(25) DECLARATION OF COVENANTS (DEVICE MAINTENANCE AND ACCESS) PER DOCUMENT# 202009291563, O.R.S.C. (DOES NOT AFFECT THE SURVEYED PROPERTY).

(26) GRANT OF EASEMENT TO SACRAMENTO MUNICIPAL UTILITY DISTRICT PER DOCUMENT# 202010201273, O.R.S.C. (NOT PLOTTABLE FROM RECORD INFORMATION).

(28) NOTES, RECITALS, LEGENDS AND/OR CONDITIONS PER BOOK 241 OF MAPS, AT PAGE 5 (BLANKET IN NATURE).

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS IDENTICAL WITH THE CENTERLINE OF ZINFANDEL DRIVE, AS SHOWN ON FINAL MAP NO. 95-0533.7 OF "VILLAGES OF ZINFANDEL UNIT NO. 9", FILED IN BOOK 317 OF MAPS, AT PAGE 7, BASED UPON FOUND MONUMENTS SHOWN HEREON.

BENCHMARK:

COUNTY OF SACRAMENTO BENCHMARK #22-051: RAMSET & 7/8" METAL DISC STAMPED "CO. B.M. 22-51" LOCATED IN TOP OF ROLL CURB ABOVE D.I. CENTER OF CURB RETURN SOUTHWEST CORNER OF SOUTH WHITEROCK RD. & ROCKINGHAM DR. & 0.30+/- MILES EASTERLY OF MATHER FIELD RD.
ELEV=91.32 (NAVD88).

ADDRESS:

3370 ZINFANDEL DRIVE, RANCHO CORDOVA, CA 95670.

FLOOD ZONE:

ZONE X UNSHADED (AREA OF MINIMAL FLOOD HAZARD) PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 06067C0208H, EFFECTIVE AUGUST 16, 2012.

EXISTING LAND AREA:

4.281± ACRES (GROSS)
3.373± ACRES (NET - EXCLUDES PUBLIC ROAD RIGHT OF WAY)

THERE WAS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN THE SURVEYED PROPERTY.

NOTE:

RECIPROCAL ACCESS AND PARKING BETWEEN PARCELS SHOWN HEREON SHALL BE GRANTED/ RESERVED PRIOR TO THE SALE AND/ OR RECONVEYANCE OF SAID PARCELS.

LOT SUMMARY

EXISTING PARCEL: 1
TOTAL GROSS AREA: 186,464 SF
TOTAL NET AREA (EXCLUDES PUBLIC R.O.W.): 146,928 SF
LAND USE: VACANT

EXISTING PARCEL: 2
TOTAL AREA: 239,101 SF
LAND USE: VACANT

PROPOSED PARCEL A:
TOTAL AREA: 65,310 SF
LAND USE: BUSINESS PROFESSIONAL

PROPOSED PARCEL B:
TOTAL AREA: 121,159 SF
LAND USE: VACANT

ZONE SUMMARY

EXISTING PARCEL: 1
CURRENT ZONE: BP (ZSPA)
CURRENT OWNER: RANCHO CORDOVA RETIREMENT RESIDENCE L P
CURRENT USAGE: VACANT

EXISTING PARCEL: 2
CURRENT ZONE: BP (ZSPA)
CURRENT OWNER: RANCHO CORDOVA RETIREMENT RESIDENCE L P
CURRENT USAGE: VACANT

PROPOSED PARCEL: A
CURRENT ZONE: BP (ZSPA)
PROPOSED OWNER: WSEE HOLDING LLC
PROPOSED USAGE: EDUCATION

PROPOSED PARCEL: B
CURRENT ZONE: BP (ZSPA)
CURRENT OWNER: RANCHO CORDOVA RETIREMENT RESIDENCE L P
PROPOSED USAGE: VACANT

EARTHWORK QUANTITIES

CUT: 650.0 CY
FILL : 3,000.0 CY
NET: 2,350.0 CY (FILL)

DRAINAGE AREA

1.500 AC

BUILDING SETBACKS	
FRONT BUILDING SETBACK	25' 10' LANDSCAPE AREA
INTERIOR SIDE	20'
STREET SIDE	25'
REAR SIDE	25'

MAP PREPARED BY

JACOB GLAZE, P.E.
KIMLEY-HORN AND ASSOCIATES
1100 W. TOWN AND COUNTRY ROAD, SUITE 700
ORANGE, CA 92868
(714) 786-6297

BY: _____ 1/18/2022
JACOB GLAZE, P.E. R.C.E.# 87934 DATE

LAND OWNER

RANCHO CORDOVA RETIREMENT RESIDENCE L P
2260 MCGILCHRIST ST
SALEM, OR 97302

SURVEYOR

JOHN E. KLAMM L.S.
TSD ENGINEERING, INC.
785 ORCHARD DRIVE, SUITE #110
FOLSOM, CA 95630

APPLICANT

BILL PU
WSEE HOLDING LLC
1601 MERKLEY AVENUE #1350
WEST SACRAMENTO, CA 95691

SEWER DISTRICT:

SACRAMENTO AREA SEWER DISTRICT

SCHOOL DISTRICT:

FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT

FIRE DISTRICT:

SACRAMENTO METROPOLITAN FIRE DISTRICT

ZONING DISTRICT:

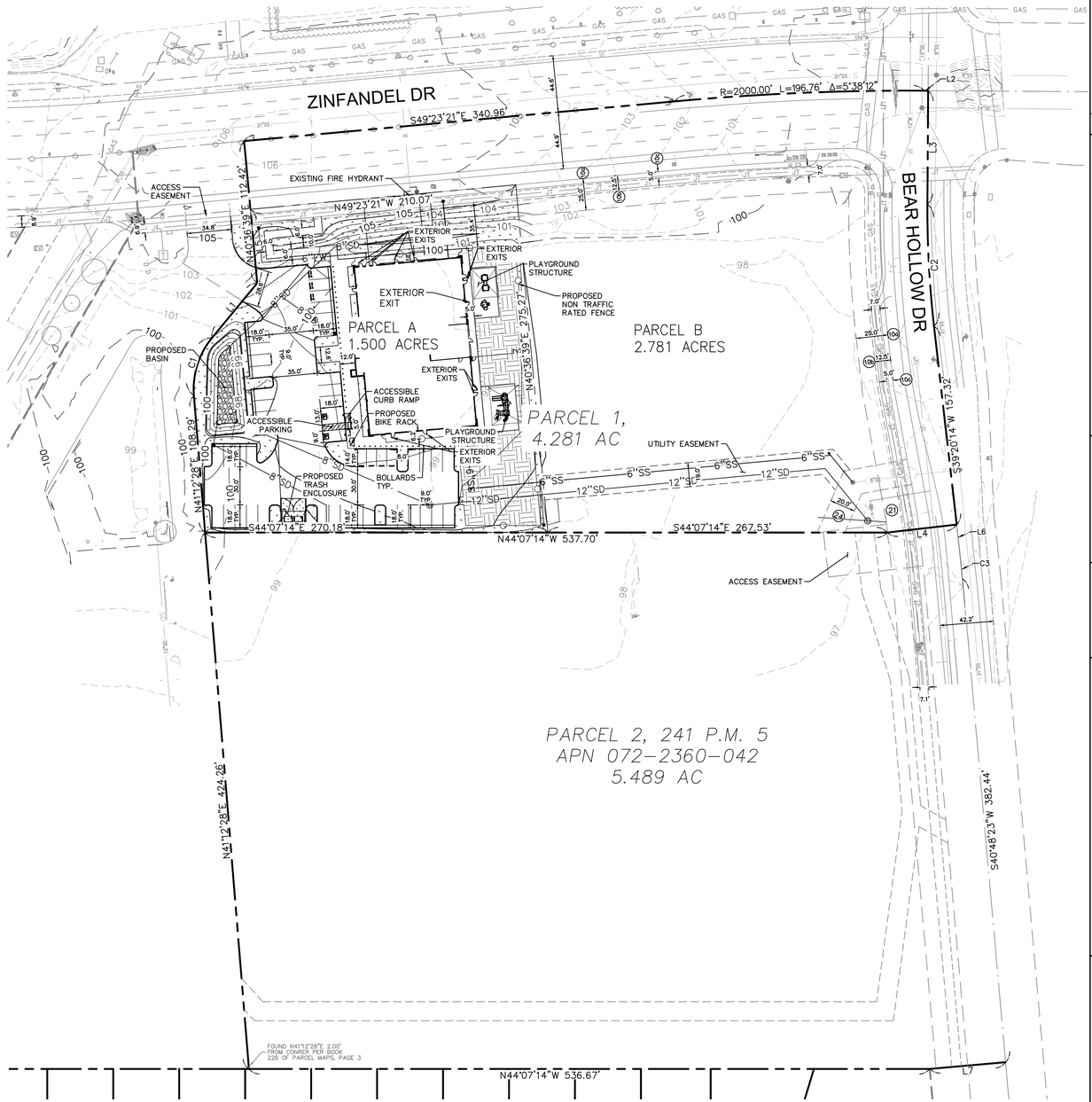
BP (ZSPA) BUSINESS AND PROFESSIONAL OFFICE, ZINFANDEL SPECIAL PLANNING AREA

WATER DISTRICT:

GOLDEN STATE WATER COMPANY

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- EXISTING EASEMENT
- EXISTING WATER LINE (W)
- EXISTING STORM DRAIN LINE (SD)
- EXISTING CONTOUR (384)
- EXISTING SEWER LINE (S)
- EXISTING GAS LINE (GAS)
- EXISTING ELECTRICAL LINE (JT)
- PROPOSED CONTOUR (384)
- PROPOSED STORM DRAIN LINE (8"SD)
- PROPOSED 2" WATER LINE (2"W)
- PROPOSED 6" FIREWATER LINE (6"FW)
- PROPOSED 6" SEWER LINE (SS)
- PROPOSED 6' NON TRAFFIC RATED FENCE
- PROPOSED EASEMENT



LINE TABLE:

LINE	BEARING	DISTANCE
L1	N85°24'48"E	55.91'
L2	S43°45'09"E	3.19'
L3	S46°14'51"W	89.42'
L4	N50°39'46"W	55.17'
L5	N40°36'39"E	58.42'
L6	S39°20'14"W	22.63'
L7	N49°11'37"W	60.00'

CURVE TABLE:

CURVE	RADIUS	DELTA	LENGTH
C1	63.50'	44°12'19"	48.99'
C2	800.00'	6°54'38"	96.49'
C3	800.50'	1°28'09"	20.51'

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

SCALE: 1" = 50'
WHEN PRINTED AT FULL SIZE 24"X36"

No.	REVISIONS	DATE	BY

Kimley»Horn
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1100 W. TOWN AND COUNTRY ROAD, SUITE 700
ORANGE, CA 92868
PHONE: 714-939-1030 FAX: 714-938-9488
WWW.KIMLEY-HORN.COM

LICENSED PROFESSIONAL
REGISTERED PROFESSIONAL ENGINEER
JACOB S. GLAZE
C 87934
CIVIL
STATE OF CALIFORNIA

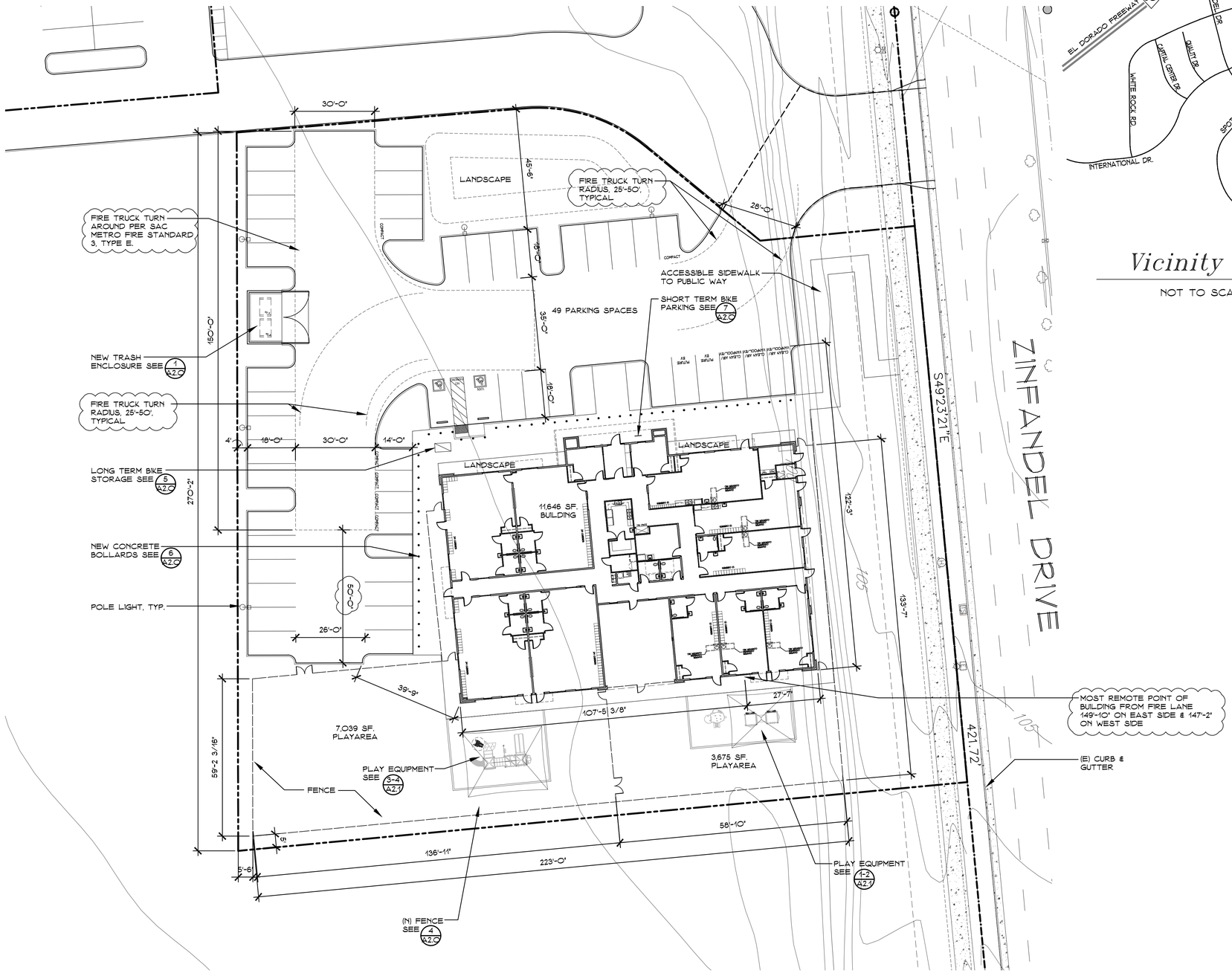
KHA PROJECT
DATE 1/18/2022
SCALE AS SHOWN
DESIGNED BY RA
DRAWN BY AF
CHECKED BY JG

GODDARD SCHOOL
3370 ZINFANDEL DR
RANCHO CORDOVA, CA
95670

TENTATIVE PARCEL MAP
NO. XXXXX
PREPARED FOR
RANCHO CORDOVA
CITY OF RANCHO CORDOVA CA

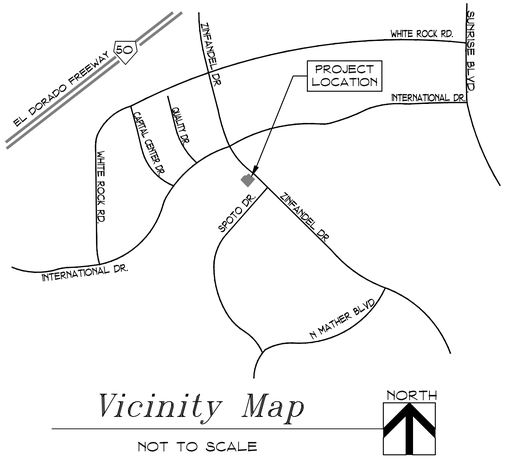
SHEET NUMBER
TPM 1.0

Plotted By:Alvarez, Ryan Sheet Set:Kha Layout:Site Layout January 18, 2022 06:21:13pm K:\ORA_LDEV\AHC2\Rancho Cordova\CAD\Exhibits\TPM Site Layout.dwg
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Site Plan

1" = 20'



Vicinity Map

NOT TO SCALE

Goddard Rancho Cordova

Zinfandel Drive, Rancho Cordova CA

PROJECT INFORMATION

BUILDING DATA:

APN:	TBD. THE APN BELOW IS FOR WHOLE LAND (072-2360-041-0000)
STREET ADDRESS:	ZINFANDEL DR.
TOTAL PARCEL SIZE:	65,349.23
ZONING:	BP (ZSPA)
CODES:	2019 CALIFORNIA BUILDING CODE 2019 CALIFORNIA MECHANICAL CODE 2019 CALIFORNIA PLUMBING CODE 2019 CALIFORNIA ELECTRICAL CODE 2019 CALIFORNIA ENERGY CODE 2019 CALIFORNIA FIRE CODE 2019 CALGREEN CODE
CONSTRUCTION TYPE:	V-B
OCCUPANCY:	E/B
BUILDING SF:	±11,646 SF.

PARKING DATA:

PARKING REQUIRED: 1 SPACE/EMPLOYEE, PLUS 1 SPACE/FACILITY VEHICLE PLUS 1 SPACE/8 PERSONS AT FACILITY CAPACITY
23 + 1 + (168/8=21) = 45

PARKING PROVIDED

DISABLED ACCESSIBLE PARKING:	2 SPACES
STANDARD PARKING STALLS:	35 SPACES
COMPACT PARKING STALLS:	6 SPACES
EV PARKING:	2 SPACES
CLEAN AIR/VANPOOL:	3 SPACES
TOTAL PROVIDED PARKING:	**48 SPACES**

DRAWING INDEX:

A1.0	SITE PLAN
A2.0	SITE DETAILS
A2.1	PLAYGROUNDS
A3.0	ELEVATIONS
A4.0	FLOOR PLAN
A5.0	ROOF PLAN
L1	PHOTOMETRIC
C1.0	SITE PLAN
C1.1	SITE DETAILS 1
C1.2	SITE DETAILS 2
C2.0	GRADING & DRAINAGE PLAN
C2.1	EROSION CONTROL DETAILS
C3.0	UTILITY PLAN
L1.0	PRELIMINARY LANDSCAPE PLAN
L1.1	TREE SHADE PLAN

PROJECT TEAM:

ARCHITECT
PERKINS, WILLIAMS & COTTERILL ARCHITECTS
3320 DATA DRIVE, SUITE 200
RANCHO CORDOVA, CALIFORNIA 95670
(916) 851-1400

CIVIL ENGINEER
KIMLEY HORN
765 THE CITY DRIVE #200
ORANGE, CA 92868
(714) 705-1374

OWNER REP.
A HINMAN CONSTRUCTION & CONSULTING LLC.
(760) 217-5449

ahc2 A.HINMAN construction and consulting

PERKINS, WILLIAMS & COTTERILL ARCHITECTS
3320 Data Drive, Suite 200 • Rancho Cordova, California 95670
T (916) 851-1400 F (916) 851-1408 E pwcarch@pwcarchitects.com

Site Plan

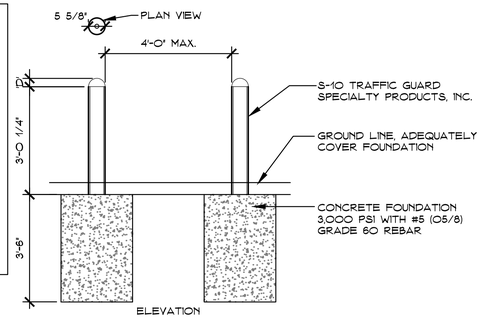
Project:	GODDARD - RANCHO CORDOVA		
Job No.	21-712	***Date:***	1-5-22
Scale:	AS NOTED		

A1.0



BOLLARD NOTES:

1. VERIFY LOCATION OF UNDERGROUND UTILITIES BEFORE DRILLING FOR CONCRETE FOUNDATION.
2. PIPE BOLLARDS LOCATED AT TRASH ENCLOSURE ALONG PLAYGROUND AND TO PROTECT ELECTRICAL TRANSFORMERS WHEN REQUIRED.
3. REFER TO PRODUCT SPECS: S-10 BY TRAFFIC GUARD SPECIALTY PRODUCTS, INC.



Bollard Detail

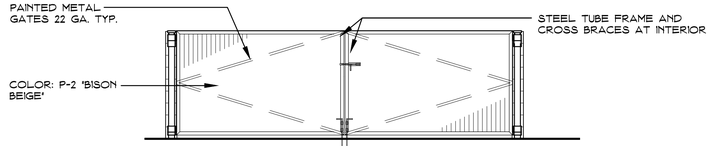
6 A2.C

Scale: 1/2" = 1'-0"

Bicycle Parking

7 A2.C

Not to Scale



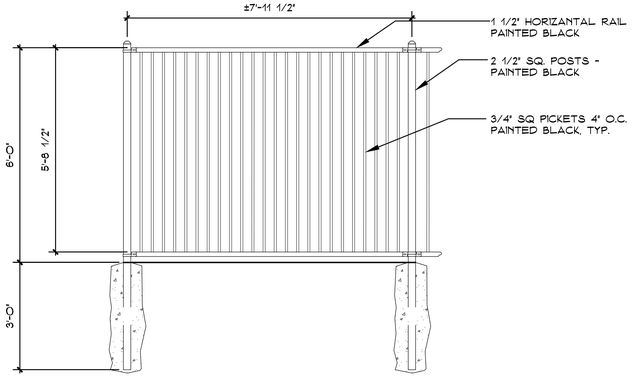
Trash Enclosure Elevation

3 A2.C

Scale: 1/4" = 1'-0"



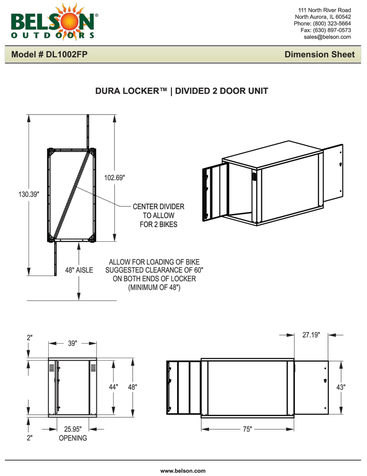




Typical Fencing Detail

4 A2.C

Scale: 1/2" = 1'-0"



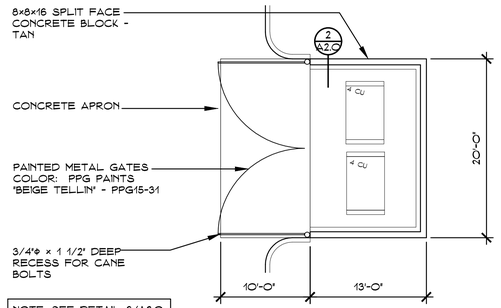
PROVIDE (1) STEEL BIKE LOCKERS BY BELSON OUTDOORS MODEL # DL1002FP OR EQUAL FOR STORAGE OF (2) BIKES
COLOR: POWDER COATED MESA TAN (NOT SHOWN)



Bike Locker

5 A2.C

Not to Scale

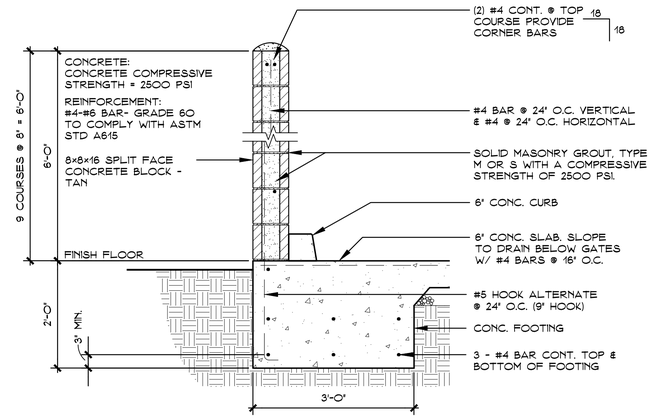


NOTE: SEE DETAIL 3/A2.0 FOR TRASH ENCLOSURE ELEVATIONS

Trash Enclosure Plan

1 A2.C

Scale: 1/8" = 1'-0"



Trash Enclosure Section

2 A2.C

Scale: 3/4" = 1'-0"

Goddard Rancho Cordova

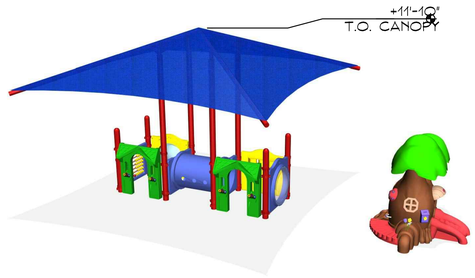
Zinfandel Drive, Rancho Cordova CA

PERKINS, WILLIAMS & COTTERILL ARCHITECTS
3320 Data Drive, Suite 200 • Rancho Cordova, California 95670
T (916) 851-1400 F (916) 851-1408 E pwcarch@pwcarchitects.com

Site Details

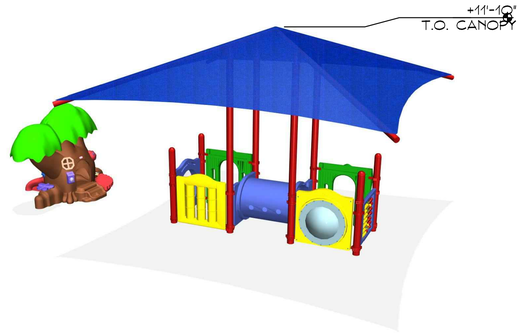
Project:	GODDARD - RANCHO CORDOVA		
Job No.	21-712	*Date:*	11-12-21
Scale:	AS NOTED		

A2.0



2 A2.1 *Infant Play Area – Front*

Scale: none



1 A2.1 *Infant Play Area – Rear*

Scale: none



4 A2.1 *Pre-School Play Area – Front*

Scale: none



3 A2.1 *Pre-School Play Area – Rear*

Scale: none

Goddard Rancho Cordova

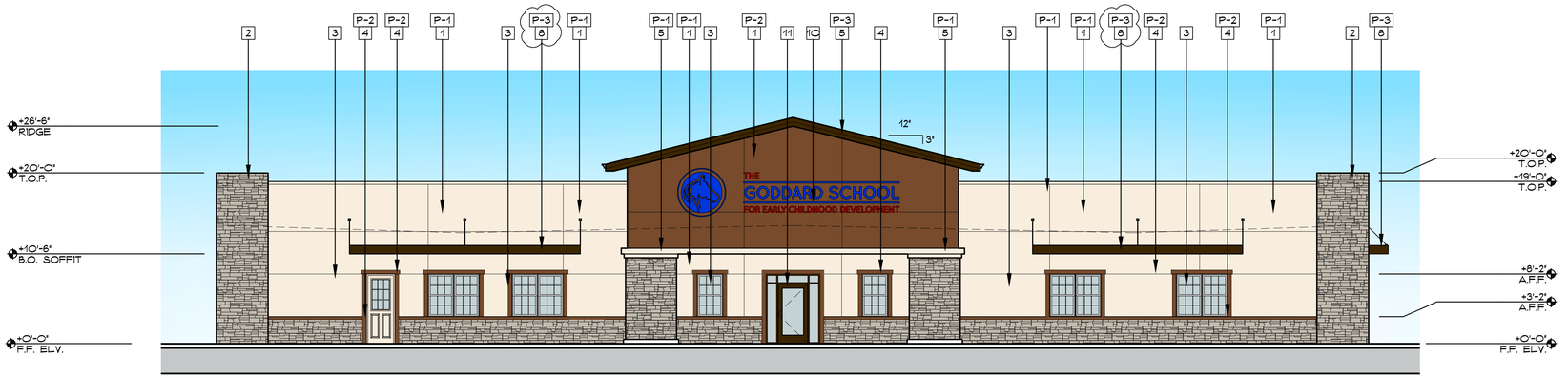
Zinfandel Drive, Rancho Cordova CA

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ARCHITECTS
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T (916) 851-1400 F (916) 851-1408 E pwcarch@pwcarchitects.com

Playground

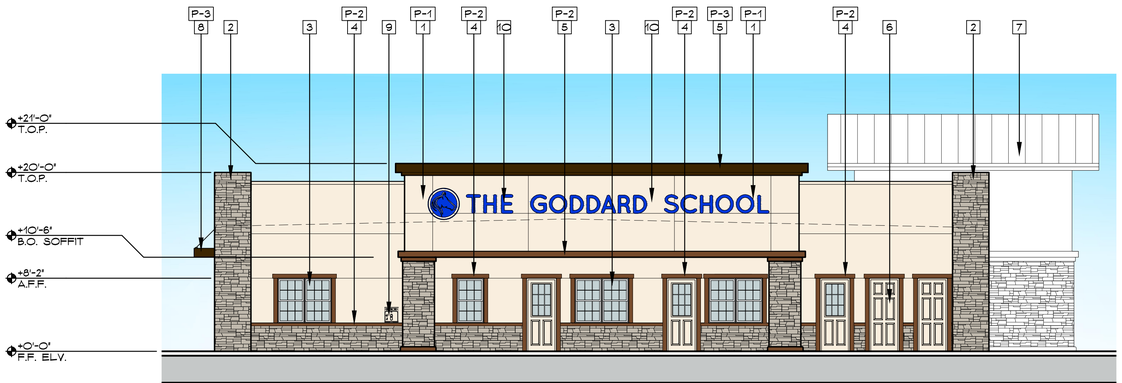
Project:	GODDARD - RANCHO CORDOVA		
Job No.	21-712	***Date:***	11-12-21
Scale:	AS NOTED		

A2.1



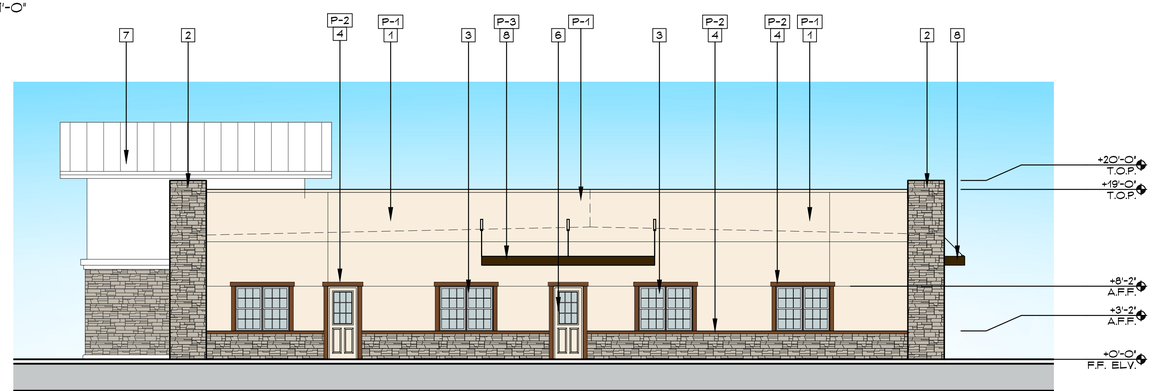
North Elevation

1/8" = 1'-0"



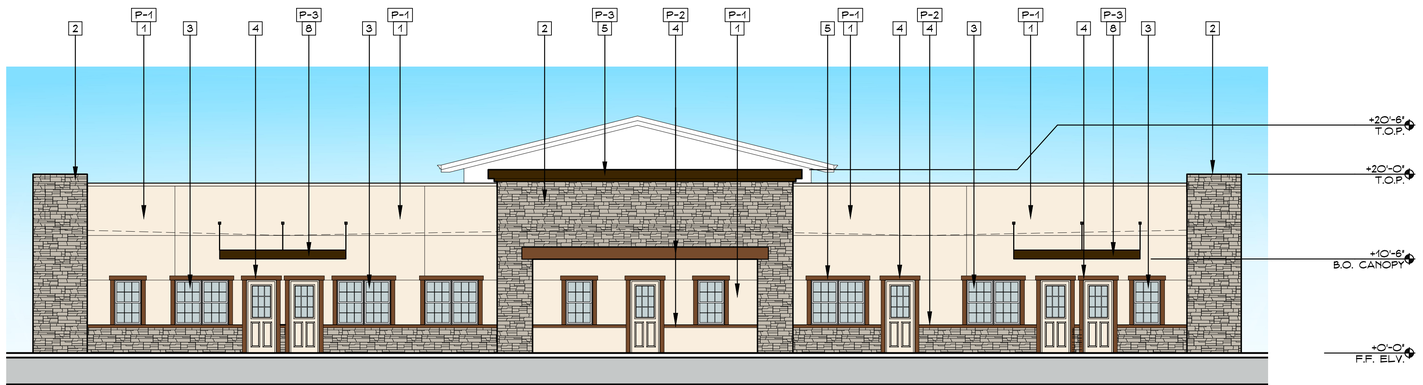
East Elevation

1/8" = 1'-0"



West Elevation

1/8" = 1'-0"



South Elevation

1/8" = 1'-0"

COLOR SCHEDULE

P-1	'FRENCH WHITE' - DEW311
P-2	'BROWN EYES' - DE5265
P-3	'DOWNING TO EARTH' - DET634

STONE - EL DORADO STONE, CLIFFSTONE - WHITEBARK

ROOF - DARK BRONZE - STANDING SEAM METAL ROOFING

KEYNOTES

1	WALLS: 3-COAT CEMENT PLASTER FINISH SYSTEM
2	STONE VENEER
3	VERTICAL HUNG SLIDER WINDOWS
4	TEXTURED FOAM TRIM
5	TEXTURED FOAM CORNICE
6	METAL MAN-DOOR - PAINTED
7	STANDING SEAM METAL ROOFING
8	PAINTED STEEL CANOPIES
9	BOTTLE FILLER
10	TENANT SIGN UNDER SEPARATE PERMIT
11	STORE FRONT WINDOWS

Goddard School

Rancho Cordova, CA

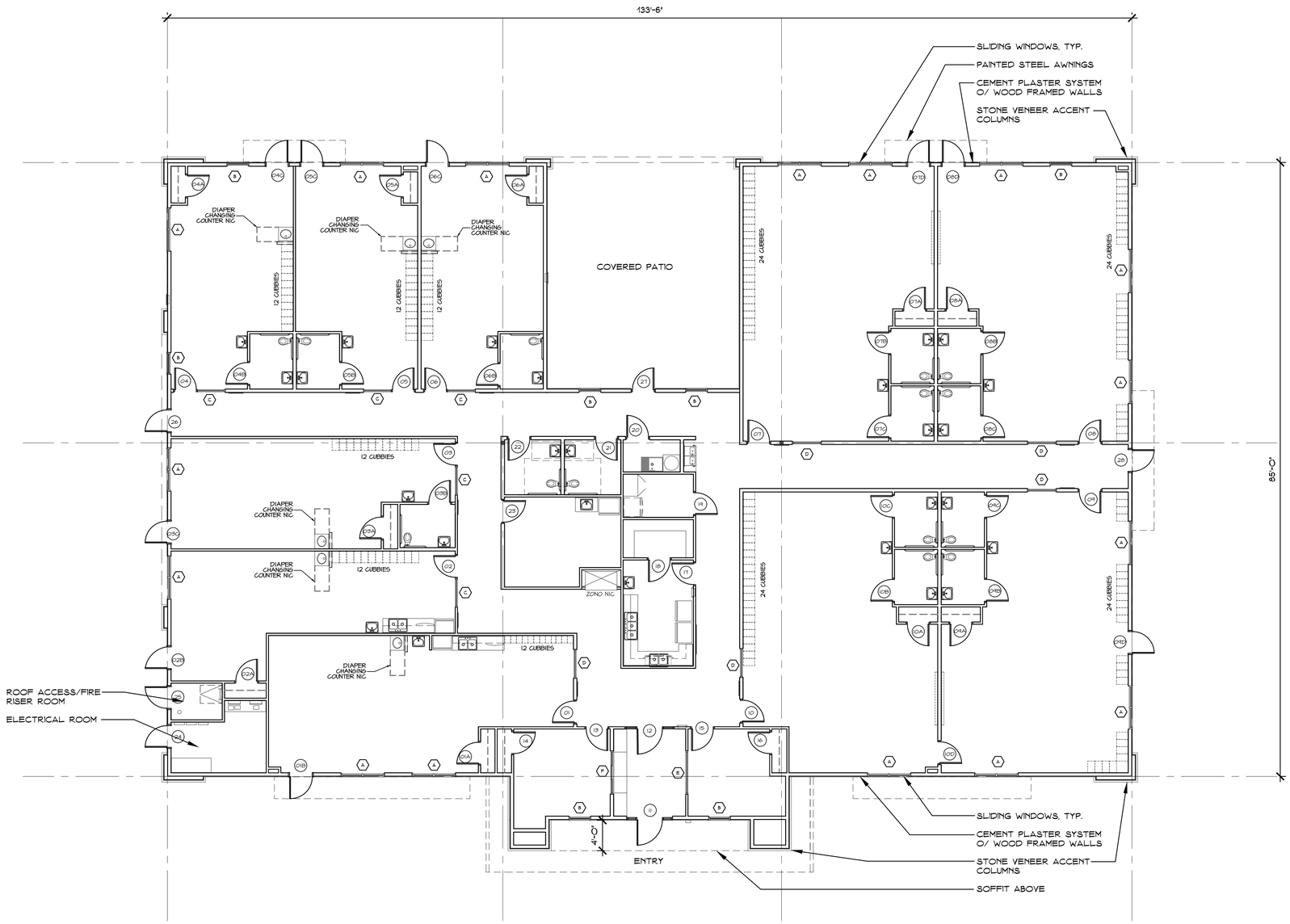
AHINMAN
construction and consulting

PERKINS, WILLIAMS & COTTERILL
ARCHITECTS
3320 Data Drive, Suite 200 • Rancho Cordova, California 95670
T (916) 851-1400 F (916) 851-1408 E pwcarch@pwcarchitects.com

Elevations

Project:	GODDARD RANCHO CORDOVA		
Job No.	21-712	***Date:***	1-5-22
Scale:	AS NOTED		

A3.0



Goddard Rancho Cordova

Zinfandel Drive, Rancho Cordova CA

Floor Plan

1/8" = 1'-0"

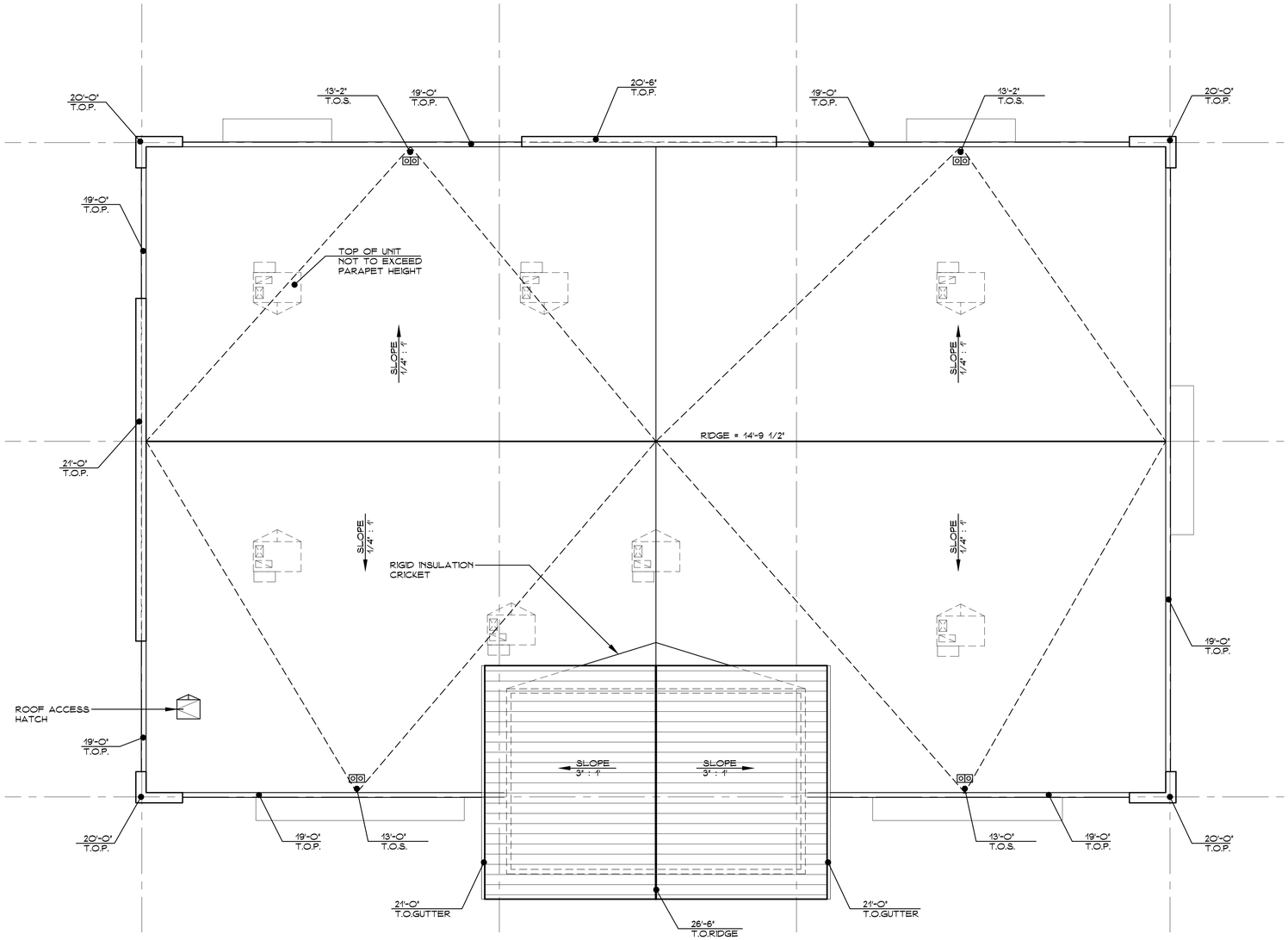
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construction and consulting

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ARCHITECTS
3320 Data Drive, Suite 200 • Rancho Cordova, California 95670
T (916) 851-1400 F (916) 851-1408 E pwcarch@pwcarchitects.com

Floor Plan

Project:	GODDARD -RANCHO CORDOVA		
Job No.	21-712	***Date:***	11-22-21
Scale:	AS NOTED		

A4.0



Roof Plan

1/8" = 1'-0"

Goddard School

Rancho Cordova, CA

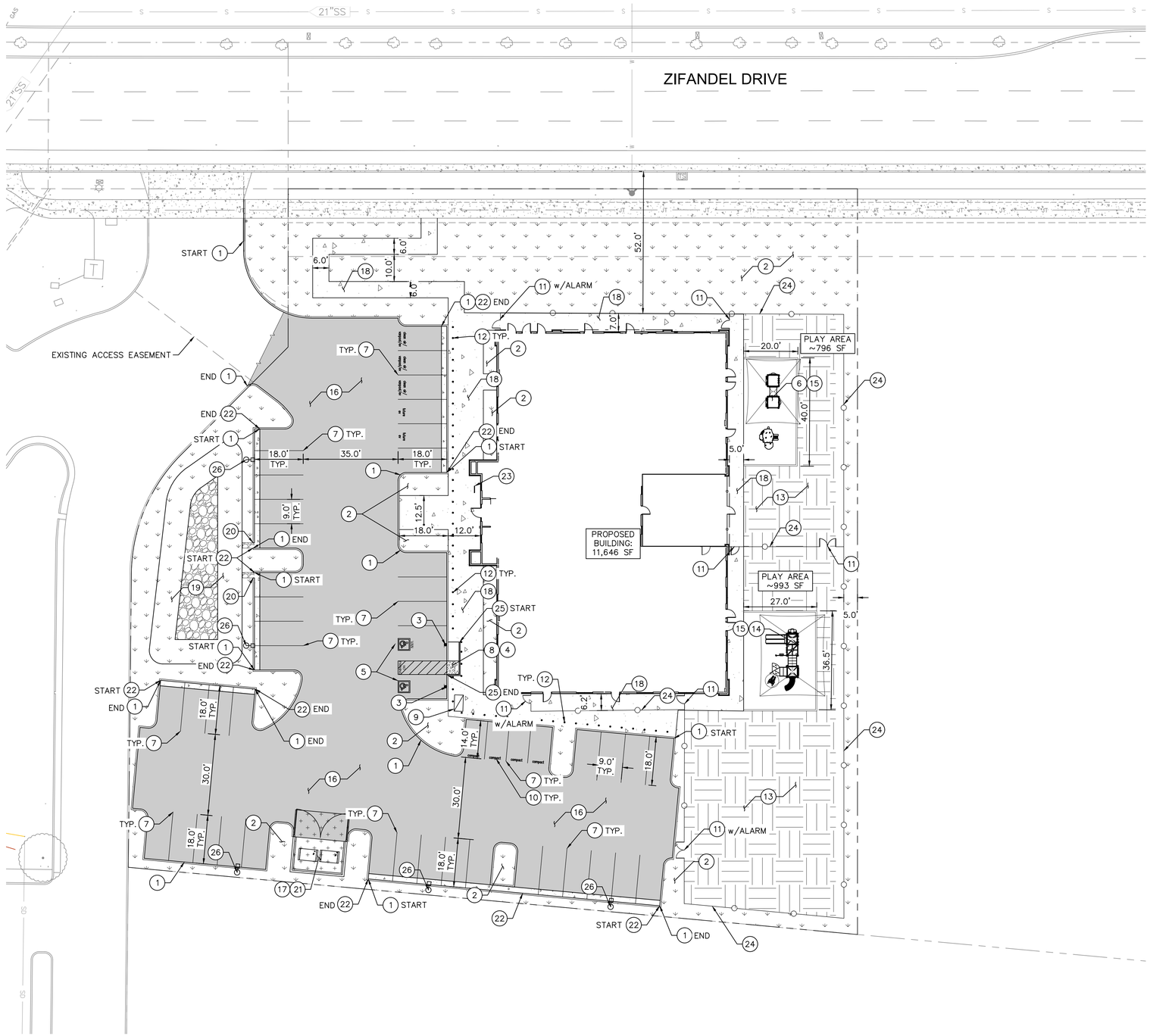
ahc² A·HINMAN construction and consulting

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3320 Data Drive, Suite 200 • Rancho Cordova, California 95670
T (916) 851-1400 F (916) 851-1408 E pwcarch@pwcarchitects.com

Roof Plan

Project:	GODDARD RANCHO CORDOVA		
Job No.	21-712	***Date:***	11-12-21
Scale:	AS NOTED		

A5.0



LEGEND

- PROPERTY LINE
- EXISTING EASEMENT
- CONCRETE HARDSCAPE
- HEAVY DUTY CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- TURF AREA SEE LANDSCAPE PLANS
- PROPOSED LANDSCAPING SEE LANDSCAPE PLANS
- PROPOSED TRUNCATED DOMES
- PROPOSED BMP AREA
- PROPOSED NON TRAFFIC RATED FENCE
- PROPOSED TRAFFIC RATED FENCE

SITE CONSTRUCTION NOTES

1. CONSTRUCT CONCRETE CURB PER DETAIL 1 SHEET C1.1. HEIGHT PER PLAN.
2. PROPOSED LANDSCAPING AREA.
3. INSTALL ACCESSIBLE PARKING SIGN ON POST AND BOLLARD PER DETAIL 11 SHEET C1.1. REFER TO ARCHITECTURAL PLANS FOR DETAIL. GC TO PROVIDE ONE VAN ACCESSIBLE SIGN. LOCATION SHOWN ON PLANS.
4. INSTALL MODIFIED PARALLEL ACCESSIBLE RAMP. MAXIMUM SLOPE 1:12 (8.33%), MAX CROSS SLOPE 1:50 (2.00%) PER DETAIL 3 SHEET C1.1.
5. PROPOSED ACCESSIBLE PARKING SPACES PER DETAIL 7 SHEET C1.1.
6. POUR IN PLACE PLAY SURFACE PER DETAIL 9 SHEET C1.1.
7. STRIPE 4" WHITE PARKING STRIPE.
8. INSTALL TRUNCATED DOMES PER DETAIL 10 SHEET C1.1. WIDTH TO BE 3.0' UNLESS OTHERWISE SPECIFIED IN PLANS.
9. PROPOSED LONG TERM BIKE RACK. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
10. PARKING STALLS, DESIGNATED FOR COMPACT VEHICLES, PAINT, IN PAINT USED FOR STALL STRIPING THE FOLLOWING CHARACTERS SUCH THAT THE LOWER EDGE OF THE LAST WORD ALIGNS WITH THE END OF THE STALL STRIPING: COMPACT.
11. INSTALL GATE WITH PANIC BAR.
12. INSTALL PIPE BOLLARD PER ARCHITECTURAL PLANS.
13. INSTALL TURF AREA. SEE LANDSCAPING PLANS FOR MORE INFORMATION.
14. PRESCHOOL PLAY STRUCTURE. REFER TO ARCHITECTURAL PLANS FOR DETAIL. GC SHALL BE RESPONSIBLE FOR OBTAINING PERMITS/APPROVAL OF STRUCTURE BY AHJ.
15. TODDLER PLAY STRUCTURE. REFER TO ARCHITECTURAL PLANS FOR DETAIL. GC SHALL BE RESPONSIBLE FOR OBTAINING PERMITS/APPROVAL OF STRUCTURE BY AHJ.
16. CONSTRUCT ASPHALT PAVEMENT PER DETAIL 2 SHEET C1.1.
17. CONSTRUCT HEAVY DUTY CONCRETE PAVEMENT PER DETAIL 5 SHEET C1.1.
18. CONSTRUCT CONCRETE SIDEWALK PER DETAIL 6 SHEET C1.1.
19. PROPOSED INFILTRATION BASIN.
20. PROPOSED 2.0' CURB CUT.
21. CONSTRUCT TRASH ENCLOSURE. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
22. PROPOSED CONCRETE CURB AND GUTTER PER DETAIL 12 SHEET C1.1.
23. PROPOSED SHORT TERM BIKE RACK. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
24. PROPOSED NON-TRAFFIC RATED FENCE PER DETAIL 8 SHEET C1.1.
25. PROPOSED HANDRAIL PER DETAIL 1, SHEET C1.2. (DO NOT EXTEND HANDRAIL INTO DRIVE AISLES OR PUBLIC RIGHT-OF-WAY, BEND 90° INSTEAD).
26. PROPOSED SITE LIGHT, SHOWN FOR REFERENCE ONLY.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SCALE: 1" = 20'
WHEN PRINTED AT FULL SIZE 24"X36"

Kimley»Horn
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1100 W. TOWN & COUNTRY RD, SUITE 700,
ORANGE, CA 92868
PHONE: 714-939-1030 FAX: 714-938-9488
WWW.KIMLEY-HORN.COM

NO.	REVISIONS	BY	APP	DATE

IMPROVEMENT PLAN

SITE PLAN

PRELIMINARY PLANS
FOR THE GODDARD SCHOOL

RANCHO CORDOVA **CALIFORNIA**

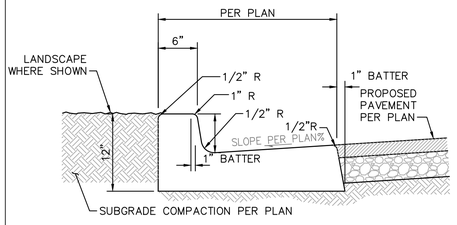
DESIGNED UNDER THE DIRECTION OF:

JACOB GLAZE DATE
R.C.E. No. 87934 REGISTRATION EXPIRES: 12-31-21

DESIGN: AZ	DATE: 11-09-21
DRAWN: MM	DATE: 11-09-21
CHECKED: JSG	DATE: 11-09-21

REGISTERED PROFESSIONAL ENGINEER
JACOB S. GLAZE
C 87934
CIVIL
STATE OF CALIFORNIA

SHEET
C1.0
2 OF 7 SHEETS

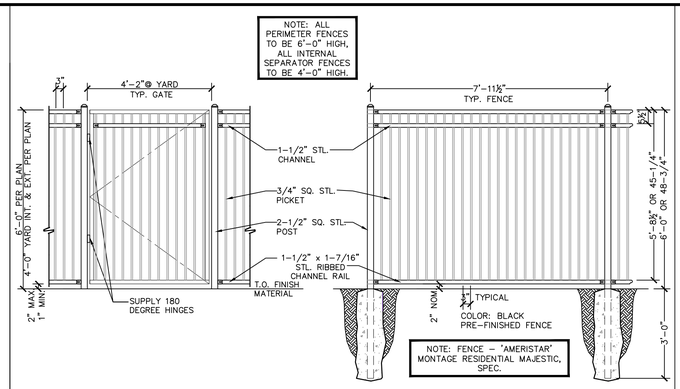


NOTES:

1. CONCRETE SHALL BE 2500 PSI.
2. ISOLATION JOINTS SHALL BE PLACED ONLY AS SPECIFIED
3. CONTRACTION JOINTS CONSISTING OF 1" DEEP SCORES SHALL BE PLACED AT 15' INTERVALS O.C.
4. WHERE A WALK IS ADJACENT TO THE CURB THE JOINTS SHALL ALIGN WITH JOINTS IN THE WALK.

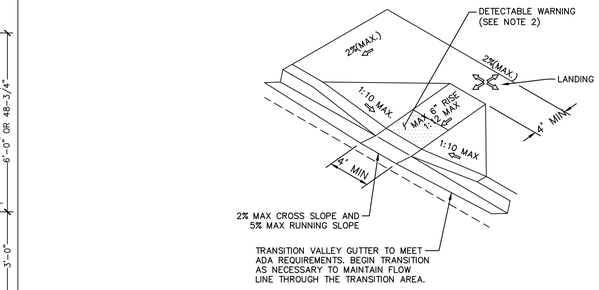
NO SCALE

12 | CONCRETE CURB & GUTTER



NO SCALE

8 | NON-TRAFFIC RATED FENCE

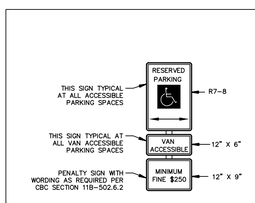


DIAGONAL CURB RAMP

1. ALL ACCESSIBLE COMPONENTS CONSTRUCTED AS PART OF THESE PLANS SHALL COMPLY WITH THE LOCAL, STATE, AND FEDERAL REGULATIONS WHICHEVER ARE MORE STRINGENT.
2. CURB RAMPS SHALL HAVE A DETECTABLE WARNING EXTENDING THE FULL WIDTH OF THE CURB RAMP AND 3' DEEP. GROOVED SURFACES ON OUTDOOR CURB RAMPS ARE NOT PERMITTED. VERIFY LOCAL REQUIREMENTS WITH THE BUILDING DEPARTMENT. REFER TO TRUNCATED DOMES DETAIL AND REQUIREMENTS IN THE CALIFORNIA BUILDING CODE.
3. DOUBLE RAMP CURB RAMPS SHALL HAVE A DETECTABLE WARNING EXTENDING 36" DEEP ALONG THE RAMP WHEN THE CURB RAMP HAS A TRAVEL SURFACE AT A 0" CURB. REFER TO TRUNCATED DOMES DETAIL.
4. PUBLIC SIDEWALK CURB RAMPS CONSTRUCTED WITHIN A PUBLIC RIGHT- OF -WAY, IN ABSENCE OF LOCAL ROADWAY GUIDELINES, SHALL MEET OR EXCEED LOCAL REGULATIONS.
5. CURB RAMP SURFACES (FLARES AND RAMP) SHALL HAVE A DIFFERENT TEXTURE FROM THE SURROUNDING PAVEMENT.
6. CURB RAMPS SHALL BE CONCRETE WITH STRENGTH OF 3500 PSI.
7. INSTALL 1/4" EXPANSION JOINT FILLER MATERIAL BETWEEN A NEW CURB RAMP AND THE EXISTING SIDEWALKS.
8. WATER PONDING WITHIN THE CURB RAMP LIMITS IS NOT ALLOWED.
9. NO GRADE BREAK IS ALLOWED ALONG THE RAMP SURFACE.
10. CROSS SLOPE OF THE CURB RAMP SURFACE SHALL BE LESS THAN 2%.
11. TRANSITION CHANGE IN ELEVATION IS NOT TO EXCEED 1/2" WITHIN AN ACCESSIBLE ROUTE.
12. DIAGONAL CURB RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.

NO SCALE

3 | ACCESSIBLE RAMP

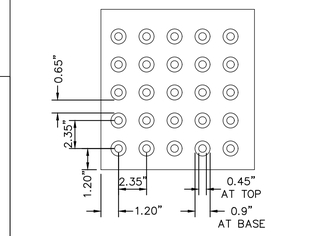


NOTE:

1. SIGNS WILL BE MOUNTED PER SIGN POST DETAIL 2 HEREON

NO SCALE

11 | ACCESSIBLE PARKING SIGN



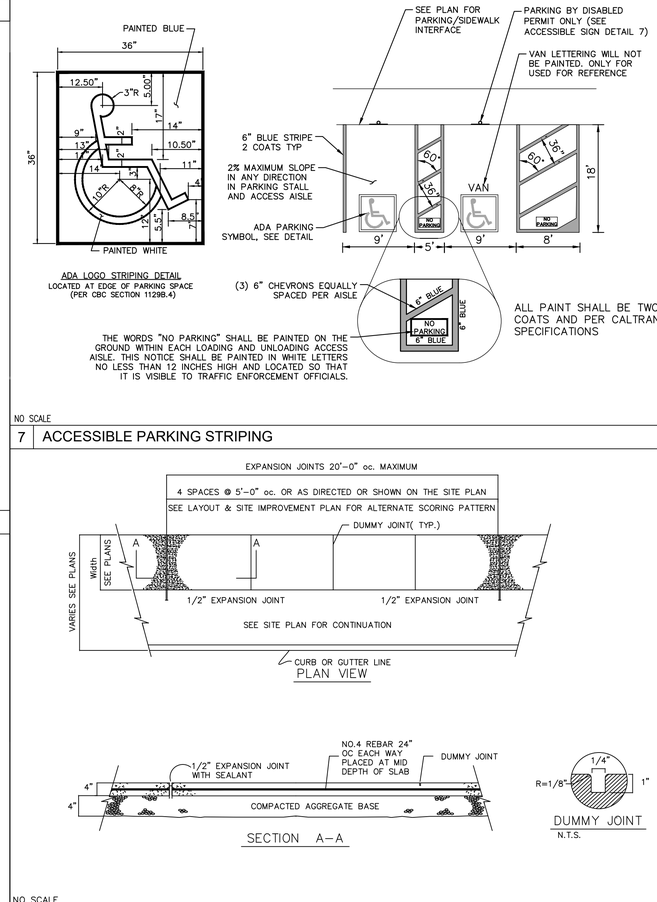
NOTES:

1. TRUNCATED DOMES BY ARMOR TILE, ADA-C-3648W CAST IN PLACE, COLOR YELLOW
2. CONTRACTOR TO REFERENCE MANUFACTURERS GUIDELINES FOR INSTALLATION OF TRUNCATED DOMES.
3. COLOR TO BE YELLOW UNLESS NOTED OTHERWISE

TRUNCATED DOME SECTION

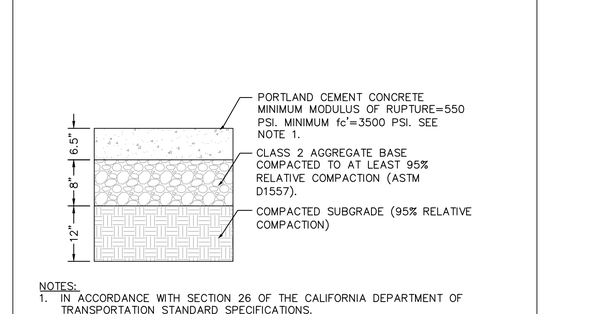
NO SCALE

10 | TRUNCATED DOMES



NO SCALE

7 | ACCESSIBLE PARKING STRIPING

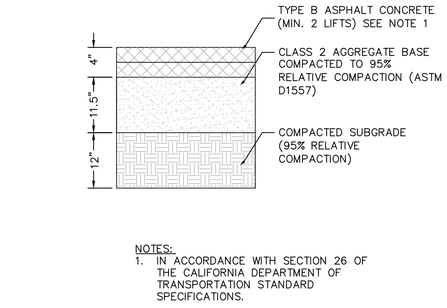


NOTES:

1. IN ACCORDANCE WITH SECTION 26 OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
2. USE THICKENED EDGE, DETAIL 4, FOR TRANSITION INTO ASPHALT PAVEMENT

NO SCALE

5 | HEAVY DUTY CONCRETE PAVEMENT SECTION



NOTES:

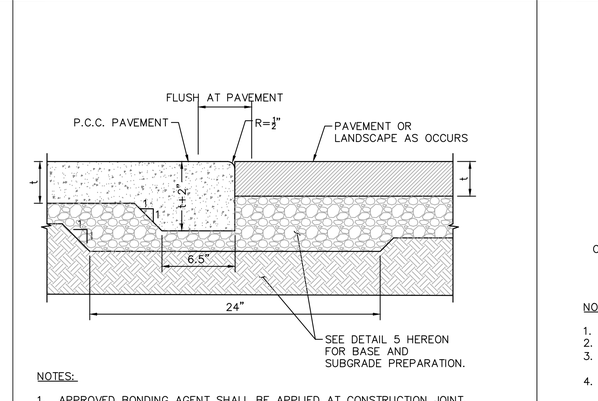
1. IN ACCORDANCE WITH SECTION 26 OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

NO SCALE

2 | ASPHALT PAVEMENT SECTION

NO SCALE

6 | CONCRETE SIDEWALK

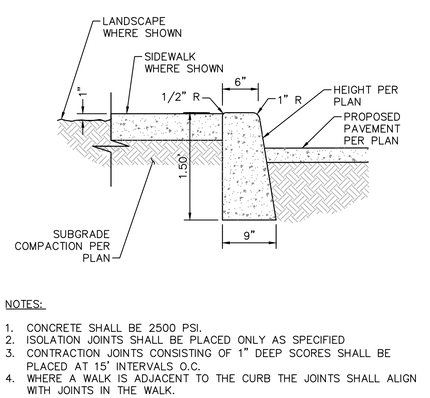


NOTES:

1. APPROVED BONDING AGENT SHALL BE APPLIED AT CONSTRUCTION JOINT.
2. SEE DETAIL 5 HEREON FOR PAVEMENT SECTION AND THICKNESS (t).
3. DETAIL APPLIES AT ALL HEAVY DUTY PAVEMENT EDGE CONDITIONS AND ASPHALT PAVEMENT TRANSITIONS.

NO SCALE

4 | THICKENED EDGE DETAIL

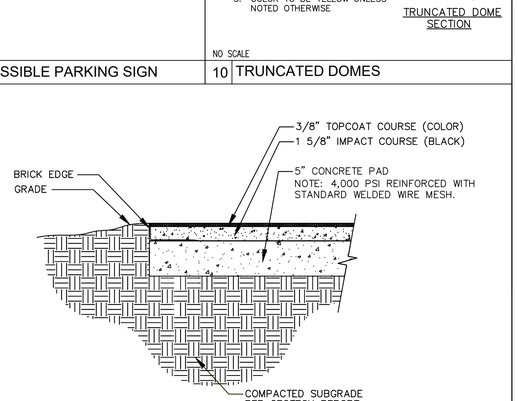


NOTES:

1. CONCRETE SHALL BE 2500 PSI.
2. ISOLATION JOINTS SHALL BE PLACED ONLY AS SPECIFIED
3. CONTRACTION JOINTS CONSISTING OF 1" DEEP SCORES SHALL BE PLACED AT 15' INTERVALS O.C.
4. WHERE A WALK IS ADJACENT TO THE CURB THE JOINTS SHALL ALIGN WITH JOINTS IN THE WALK.

NO SCALE

1 | CONCRETE CURB



NO SCALE

9 | POUR-IN PLACE PLAY SURFACING

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IMPROVEMENT PLAN

SITE DETAILS 1

PRELIMINARY PLANS
FOR THE GODDARD SCHOOL

RANCHO CORDOVA **CALIFORNIA**

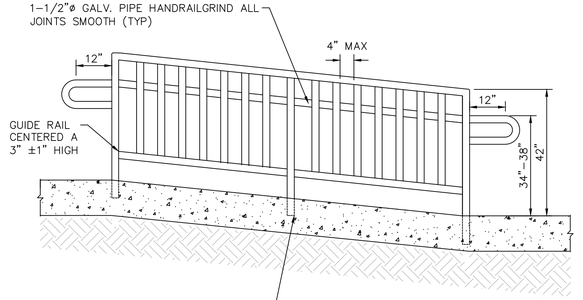
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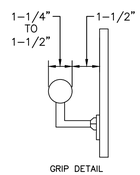
JACOB GLAZE DATE
R.C.E. No. 87934 REGISTRATION EXPIRES: 12-31-21

DESIGN: AZ DATE: 11-09-21
DRAWN: MM DATE: 11-09-21
CHECKED: JSG DATE: 11-09-21

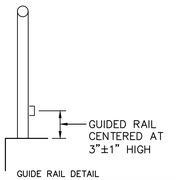
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SHEET
C1.1
3 OF 7 SHEETS





GRIP DETAIL



GUIDE RAIL DETAIL

NOTE:
1. ANY PATH OF TRAVEL SHALL BE CONSIDERED A RAMP IF ITS SLOPE IS GREATER THAN 5% RUNNING SLOPE.
2. THE MAXIMUM SLOPE OF ANY RAMP THAT SERVED ANY EXIT WAY, PROVIDES ACCESS FOR PERSONS WITH DISABILITIES, OR IS IN THE PATH OF TRAVEL SHALL BE 8.33%.
3. THE MAXIMUM CROSS SLOPE SHALL BE 2%.
4. PEDESTRIAN RAMPS SERVING MAIN ENTRANCES SHALL HAVE A MINIMUM OF 48" WIDTH.
5. PEDESTRIAN RAMPS SERVING ENTRANCES WHERE THE RAMP IS THE ONLY EXIT DISCHARGE AND PRIMARY ENTRANCES TO THE BUILDING OR RAMPS THAT SERVE AN OCCUPANCY LOAD OF 300 SHALL HAVE A MINIMUM CLEAR WIDTH OF 60".
6. ANY WALL OR OTHER SURFACE ADJACENT TO RAMP HANDRAILS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS.
7. HANDRAILS SHALL NOT ROTATE IN THEIR FITTINGS.
8. WHEEL GUIDE RAILS SHALL BE COMPLIANT WITH SECTION 1133B.5.6 OF THE CALIFORNIA BUILDING CODE.
9. THE GRIP PORTION OF THE HANDRAIL MUST BE BETWEEN 1–1/4" AND 1–1/2".
10. GUIDE CURBS SHALL BE 3"±1"ABOVE THE RAMP SURFACE AND RUN UNINTERRUPTED THE ENTIRE LENGTH OF THE RAMP.
11. PROVIDE 42" HIGH GUARDRAIL AROUND RAMPS WITH MORE THAN 30" OF RISE. THE MAXIMUM OPENING BELOW THE RAIL IS 4".
12. PEDESTRIAN RAMP SURFACES SHALL BE SLIP RESISTANT PER SEC. 1124B.1 OF THE CALIFORNIA BUILDING CODE.
13. HANDRAILS MUST EXTEND A MINIMUM OF 12" OF LEVEL DISTANCE (PARALLEL TO LANDING SURFACE) BEYOND TOP AND BOTTOM OF THE RAMP ENDS BEFORE THEY ARE RETURNED.

NO SCALE

1 HANDRAILS

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IMPROVEMENT PLAN

SITE DETAILS 2

PRELIMINARY PLANS
FOR THE GODDARD SCHOOL

RANCHO CORDOVA **CALIFORNIA**

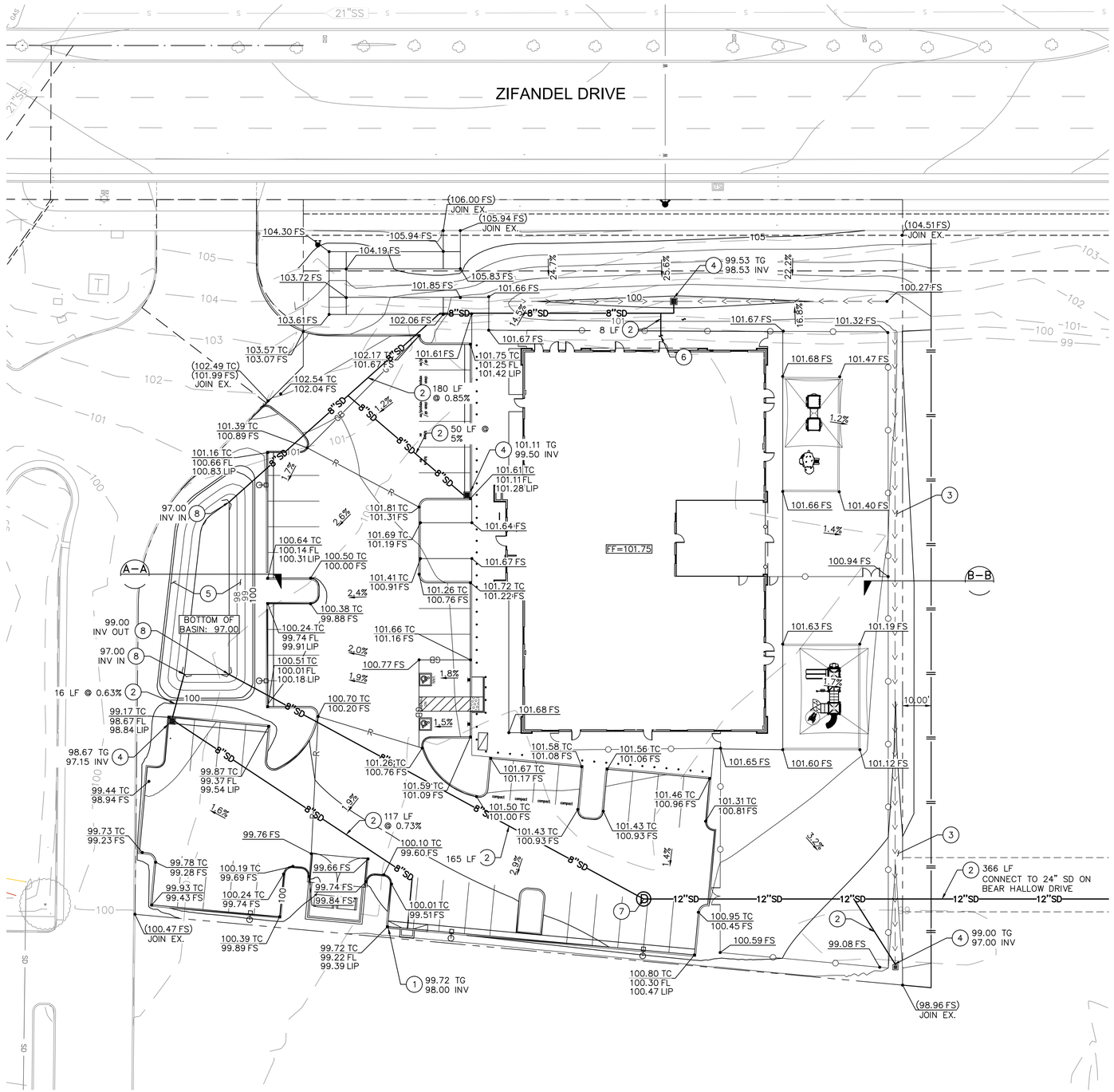
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C1.2
7 OF 7 SHEETS

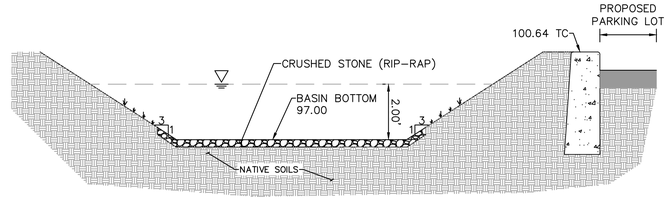


GRADING LEGEND

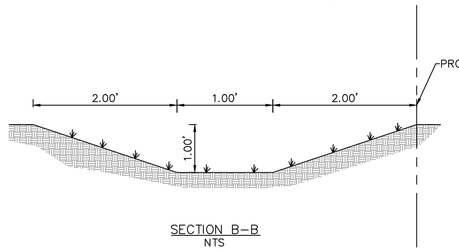
	PROPERTY LINE
	EXISTING EASEMENT
2908	PROPOSED CONTOUR
2908	EXISTING CONTOUR
GB GB	GRADEBREAK LINE
R	RIDGELINE
	LIMITS OF GRADING
SD	PROPOSED STORM DRAIN
(100.00 TC) 99.50 FS)	EXISTING GRADE
100.00 TC 99.50 FS	PROPOSED GRADE
1.0%	PROPOSED SLOPE

KEY NOTES

KEYNOTE	NOTE DESCRIPTION
1	PROPOSED PRIVATE CATCH BASIN.
2	PROPOSED HDPE STORM DRAIN LINE. SIZE PER PLAN.
3	PROPOSED VEGETATED SWALE PER SECTION B–B HEREON.
4	CONSTRUCT PRIVATE 12" DIAMETER OR 1' X 1' AREA DRAIN.
5	PROPOSED INFILTRATION BASIN. SEE SECTION A–A HEREON.
6	PROPOSED ROOF DRAIN DOWNSPOUT. SHOWN FOR REFERENCE ONLY.
7	PROPOSED PRIVATE MANHOLE
8	PROPOSED 12" FLARED END SECTION (FES) OR APPROVED EQUAL.



SECTION A–A
NTS



SECTION B–B
NTS

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SCALE: 1" = 20'
WHEN PRINTED AT FULL SIZE 24"X36"

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IMPROVEMENT PLAN

GRADING AND DRAINAGE PLAN

PRELIMINARY PLANS
FOR THE GODDARD SCHOOL

RANCHO CORDOVA **CALIFORNIA**

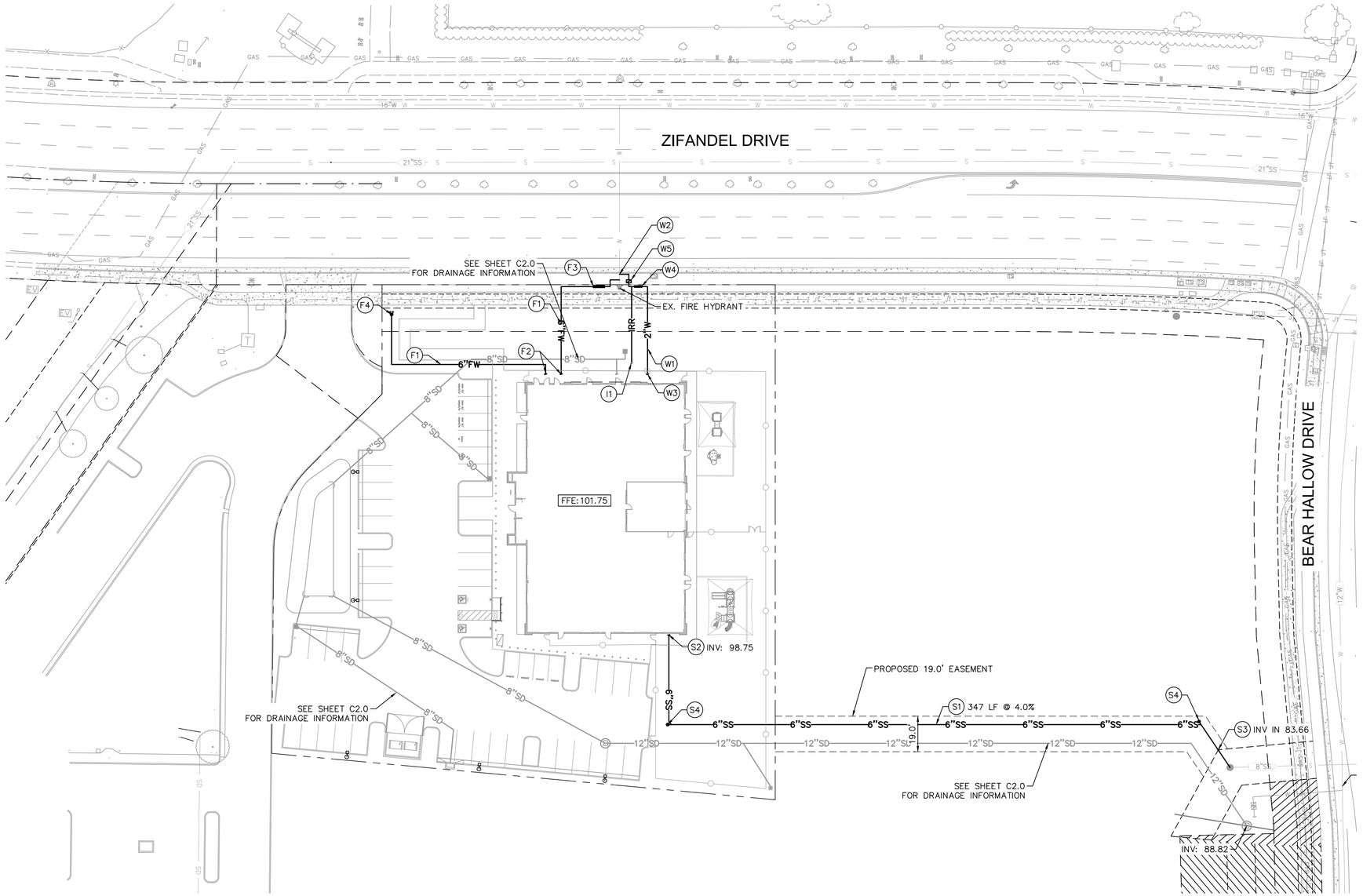
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SHEET
C2.0
4 OF 7 SHEETS



LEGEND

- PROPERTY LINE
- SS — PROPOSED SANITARY SEWER PIPE
- W — PROPOSED DOMESTIC WATER PIPE
- FW — PROPOSED FIRE WATER PIPE
- SD — PROPOSED STORM DRAIN
- SS — EXISTING SANITARY SEWER
- W — EXISTING WATER

NOTE

1. REFER TO ARCHITECTURAL/MEP PLANS FOR ALL UTILITY BUILDING CONNECTION POINTS.

SANITARY SEWER NOTES

KEYNOTE	NOTE DESCRIPTION
S1	INSTALL 6" SDR-35 PVC SEWER LATERAL WITH A SLOPE OF 1.0% MINIMUM.
S2	BUILDING POINT OF CONNECTION (5-FT FROM BUILDING FACE). CONFIRM INVERT ELEVATION PRIOR TO CONSTRUCTION.
S3	CONNECT TO EXISTING SANITARY SEWER MAIN PER CITY OF RANCHO CORDOVA STANDARDS. CONTRACTOR TO VERIFY LOCATION AND INVERT.
S4	INSTALL CLEANOUT.

DOMESTIC WATER NOTES

KEYNOTE	NOTE DESCRIPTION
W1	INSTALL 2" PVC SCHEDULE 40 DOMESTIC WATER PIPE.
W2	CONNECT INTO EXISTING LINE PER CITY OF RANCHO CORDOVA STANDARDS.
W3	2" BUILDING POINT OF CONNECTION (5-FT FROM BUILDING FACE).
W4	INSTALL DOMESTIC BACKFLOW IN CAGE. GENERAL CONTRACTOR SHALL RECEIVE BACKFLOW APPROVAL FROM WATER PURVEYOR PRIOR TO ORDERING OF BACKFLOW.
W5	PROPOSED WATER METER COORDINATE INSTALL WITH LOCAL PURVEYOR.

FIRE WATER NOTES

KEYNOTE	NOTE DESCRIPTION
F1	PROPOSED 6" WATER LINE, REFERENCE FIRE PLANS.
F2	PROPOSED 6" FIRE LINE BUILDING POINT OF CONNECTION (5-FT FROM BUILDING FACE).
F3	PROPOSED 6" WILKINS 350 DCDA PER CITY OF RANCHO CORDOVA STANDARDS. COORDINATE INSTALL WITH LOCAL FIRE DEPARTMENT. REFERENCE FIRE PLANS.
F4	PROPOSED 6" FDC PER CITY OF OF RANCHO CORDOVA STANDARDS.COORDINATE INTSALL WITH FIRE DEPARTMENT.

IRRIGATION NOTES

KEYNOTE	NOTE DESCRIPTION
I1	PROPOSED IRRIGATION POINT OF CONNECTION.

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

SCALE: 1" = 30'
WHEN PRINTED AT FULL SIZE 24"X36"

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IMPROVEMENT PLAN

UTILITY PLAN

PRELIMINARY PLANS
FOR THE GODDARD SCHOOL

RANCHO CORDOVA **CALIFORNIA**

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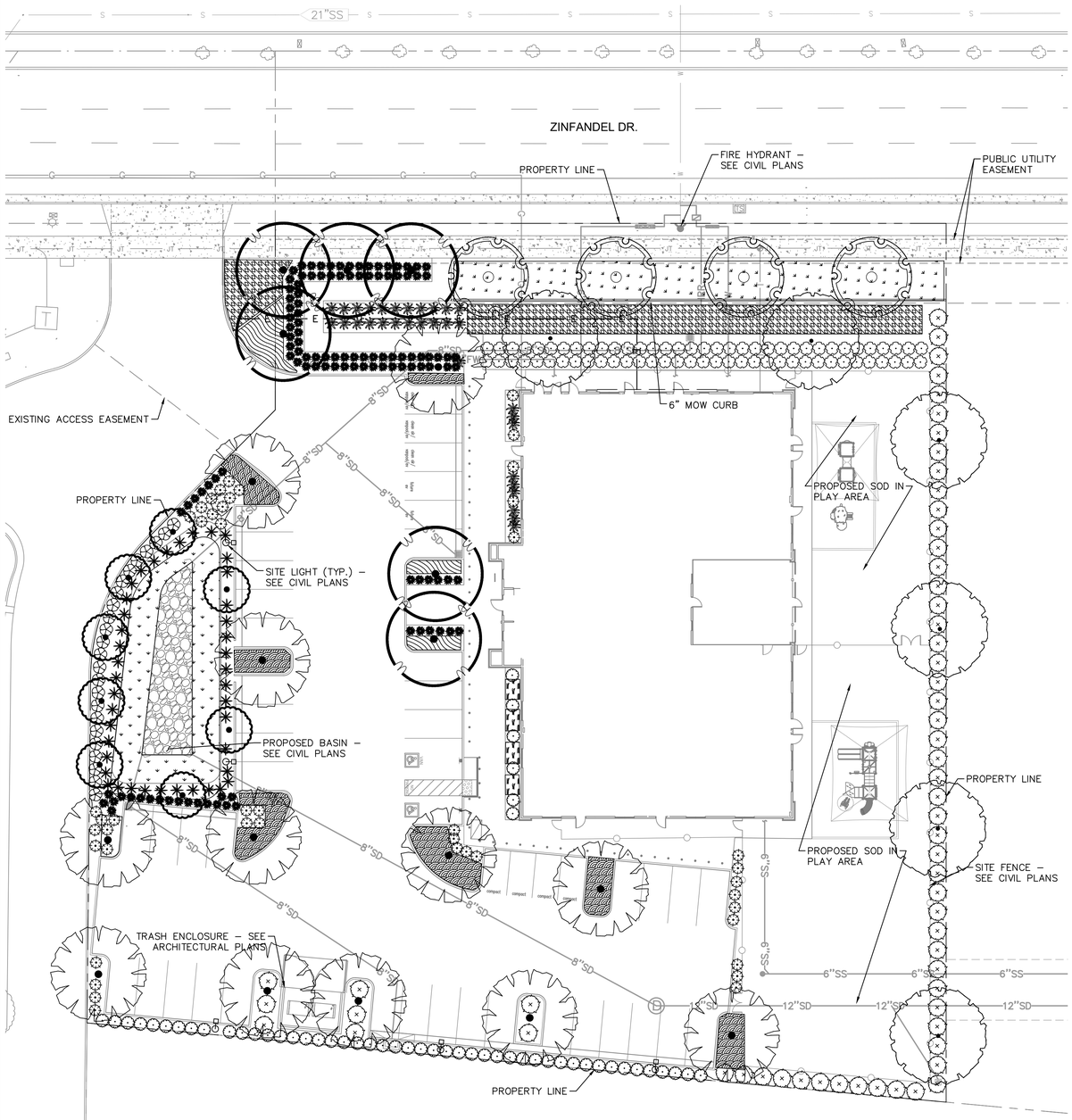
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C 87934
CIVIL
STATE OF CALIFORNIA

SHEET
C3.0

5 OF 7 SHEETS



PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT/SPREAD	CAL.	WUCOLS	SIZE AT MATURITY
	4	PLATANUS RACEMOSA / CALIFORNIA SYCAMORE	24" BOX	10-12` HT. X 4-5` SPR.	2" CAL.	LOW	40` HT. X 25` SPR.
	6	PRUNUS MUME / JAPANESE FLOWERING APRICOT	24" BOX	8`-10` HT. X 3`-4` SPR.	1.5" CAL.	MODERATE	30` HT. X 30` SPR.
	6	QUERCUS LOBATA / VALLEY OAK	15 GAL.	7`-8` HT. X 4`-5` SPR,	1" CAL.	LOW	40` HT. X 25` SPR.
	8	SAMBUCUS NIGRA CAERULEA / BLUE ELDERBERRY	15 GAL.	6-8` HT. X 2-3` SPR.	1" CAL.	LOW	15` HT. X 10` SPR.
	12	ULMUS PARVIFOLIA `TRUE GREEN` / TRUE GREEN LACEBARK ELM	15 GAL.	7`-8` HT. X 2`-3` SPR.	1" CAL.	MODERATE	30` HT. X 30` SPR.

SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING	WUCOLS	SIZE
	32	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / KARL FOERSTER FEATHER REED GRASS	5 GAL.	48" O.C.	LOW	3` HT. X 3` SPR.
	70	CALLISTEMON VIMINALIS 'LITTLE JOHN' / LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL.	48" O.C.	LOW	4` HT. X 4` SPR.
	45	DIETES BICOLOR / FORTNIGHT LILY	5 GAL.	36" O.C.	LOW	2` HT. X 4` SPR.
	53	EUONYMUS JAPONICUS 'GREEN SPIRE' / GREEN SPIRE EUONYMUS	5 GAL.	48" O.C.	LOW	6` HT. X 4` SPR.
	24	LOROPETALUM CHINENSE RUBRUM 'PURPLE MAJESTY' / PURPLE MAJESTY FRINGE FLOWER	5 GAL.	48" O.C.	MODERATE	6` HT. X 4` SPR.
	42	MUHLENBERGIA CAPILLARIS 'LENCA' TM / REGAL MIST PINK MUHLY GRASS	5 GAL.	48" O.C.	LOW	4` HT. X 4` SPR.
	60	RHAPHIOLEPIS UMBELLATA 'SOUTHERN MOON' / SOUTHERN MOON YEDDA HAWTHORN	5 GAL.	72" O.C.	LOW	5` HT. X 6` SPR.
	118	SALVIA CHAMAEDRYOIDES / MEXICAN BLUE SAGE	5 GAL.	36" O.C.	LOW	2` HT. X 3` SPR.

GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING	WUCOLS
	187	ARCTOSTAPHYLOS X 'EMERALD CARPET' / EMERALD CARPET MANZANITA	1 GAL.	36" O.C.	LOW
	32	DIANELLA REVOLUTA 'LITTLE REV' / LITTLE REV FLAX LILY	1 GAL.	24" O.C.	LOW
	175	LOMANDRA LONGIFOLIA 'BREEZE' TM / BREEZE MAT RUSH	1 GAL.	30" O.C.	LOW
	41	TEUCRIUM CHAMAEDRYS 'PROSTRATUM' / PROSTRATE GERMANDER	1 GAL.	36" O.C.	LOW

SOD	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING	WUCOLS
	3,567 SF	NATIVE MOW FREE FESCUE BLEND	SOD		MODERATE
	155 LF	6" MOW CURB			

TREE BOX SIZE NOTE:

25% OF PROPOSED TREES ARE REQUIRED TO BE 24% BOX OR LARGER.
TOTAL TREES: 36 TREES
TOTAL 24" BOX TREES: 10 (27%)

TREE NOTE:

30% OF PROPOSED TREES ARE REQUIRED TO BE OF EVERGREEN SPECIES.
TOTAL TREES: 36 TREES
TOTAL EVERGREEN TREES: 12 (33%)

ROOT BARRIER NOTE:

ALL TREES WITHIN 10' OF PAVING OR HARDSCAPE ARE TO RECEIVE ROOT CONTROL BARRIER.

PRE-EMERGENT NOTE:

CONTRACTOR TO APPLY PRE-EMERGENT IN ALL NON-SEEDED LANDSCAPE PLANTERS AND TO INSTALL A WEED CONTROL LAYER IN ALL WOOD BARK MULCH AREAS.

SITE LIGHT NOTE:

ALL TREES ARE REQUIRED TO BE 10' CLEAR BETWEEN CENTER OF TREE AND CENTER OF LIGHT POLE.

LANDSCAPE NOTE:

THE SELECTION OF PLANT MATERIAL IS BASED ON CLIMATIC, AESTHETIC, AND MAINTENANCE CONSIDERATIONS. ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS AND APPROPRIATE SUPPLEMENTS BASED UPON A SOILS REPORT FROM AN AGRICULTURAL SUITABILITY SOIL SAMPLE TAKEN FROM THE SITE. DECOMPOSED GRANITE SHALL FILL IN BETWEEN SHRUBS TO SHIELD THE SOIL FROM THE SUN, EVAPOTRANSPIRATION, AND RUN-OFF. ALL SHRUB BEDS SHALL BE MULCHED TO A 3" DEPTH TO HELP CONSERVE WATER, LOWER SOIL TEMPERATURE, AND REDUCE WEED GROWTH. THE SHRUBS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORMS. ALL LANDSCAPE IMPROVEMENTS SHALL FOLLOW THE GUIDELINES SET FORTH BY THE CITY OF RANCHO CORDOVA MUNICIPAL CODE.

I HAVE COMPLIED WITH THE CRITERIA OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLAN.

COREY R. CAMERON, LLA 6625

IRRIGATION NOTE:

AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED TO PROVIDE 100% COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. THE WATER SUPPLY FOR THIS SITE IS A POTABLE WATER CONNECTION AND A DEDICATED IRRIGATION METER WILL BE PROVIDED. LOW VOLUME EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH NO WATER LOSS DUE TO WATER CONTROLLERS, AND OTHER NECESSARY IRRIGATION EQUIPMENT. ALL POINT SOURCE SYSTEM SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE GUIDELINES SET FORTH BY THE CITY OF RANCHO CORDOVA MUNICIPAL CODE.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
SCALE: 1" = 20'
WHEN PRINTED AT FULL SIZE 24"X36"

811 Know what's below. Call before you dig.

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NO.	REVISIONS	BY	APP	DATE

IMPROVEMENT PLAN

PRELIMINARY LANDSCAPE PLAN

PRELIMINARY PLANS
FOR THE GODDARD SCHOOL

RANCHO CORDOVA **CALIFORNIA**

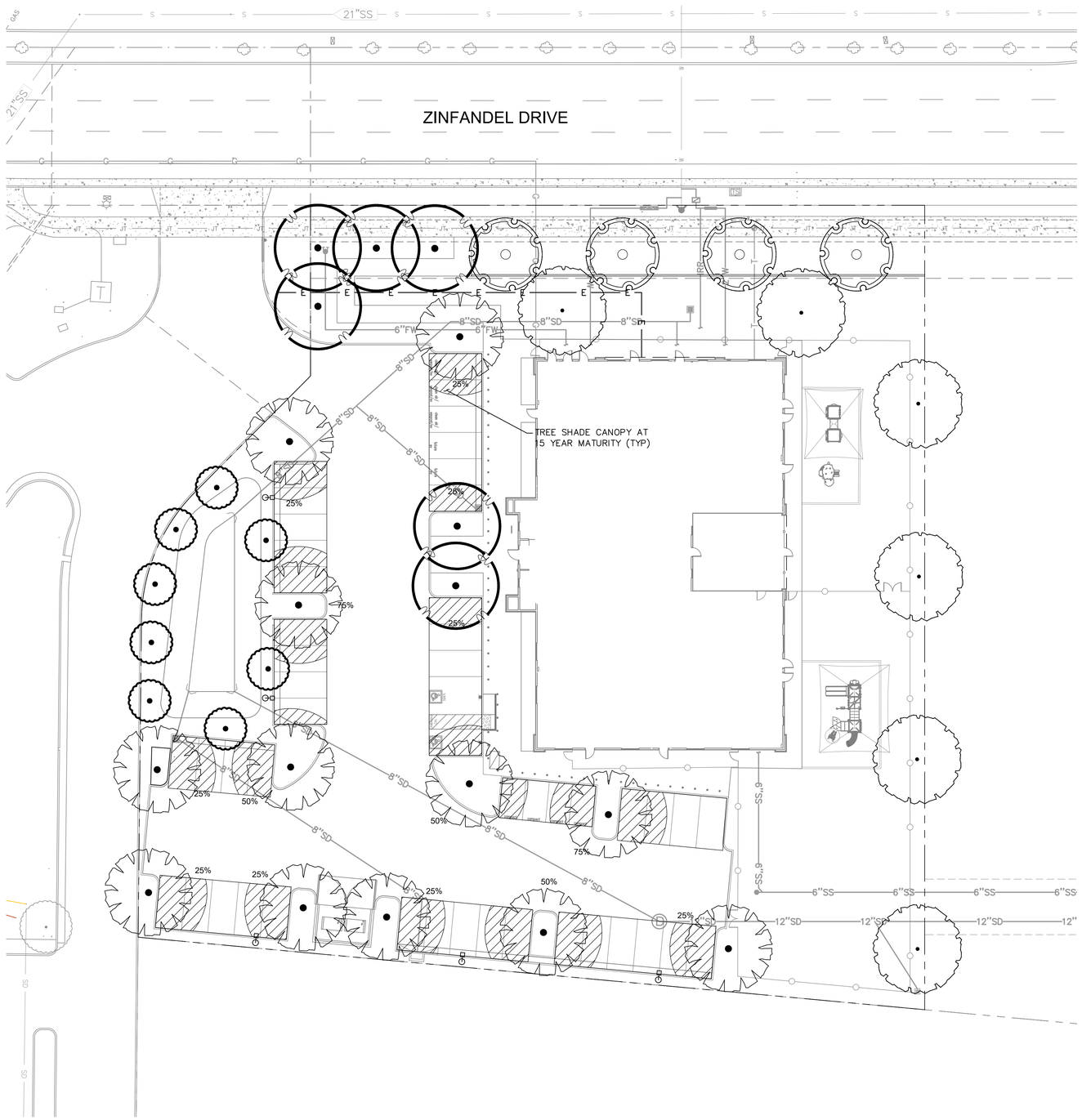
DESIGNED UNDER THE DIRECTION OF:

COREY CAMERON — DATE
P.L.A No. 6625 REGISTRATION EXPIRES: 07-31-22

DESIGN: LD	DATE: 11-09-21
DRAWN: LD	DATE: 11-09-21
CHECKED: CC	DATE: 11-09-21

LICENSED LANDSCAPE ARCHITECT — COREY CAMERON — No. 6625 — Date — STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

SHEET
L1.0
6 OF 7 SHEETS



TREE	25%	50%	75%	100%	TOTAL
ULMUS PARVIFOLIA	(7) 240 SQFT	(3) 481 SQFT	(2) 721 SQFT	-	4,565 SQFT
PRUNUS MUME	(2) 79 SQFT	-	-	-	158 SQFT
				GRAND TOTAL	4,723 SQFT

PARKING LOT SHADE CANOPY

TOTAL PARKING AREA = 7,717 SQFT
50% SHADE REQ. = 3,859 SQFT
PROVIDED = 4,723 SQFT / 61%

*TREE SHADE SHOWN AT 15 YEAR MATURITY

ULMUS PARVIFOLIA = 35' DIA
25% = 241 SQFT
50% = 481 SQFT
75% = 722 SQFT
100% = 962 SQFT

PRUNUS MUME = 20' DIA
25% = 79 SQFT
50% = 157 SQFT
75% = 236 SQFT
100% = 314 SQFT

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SCALE: 1" = 20'
WHEN PRINTED AT FULL SIZE 24"X36"

811 Know what's below. Call before you dig.

Kimley»Horn
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NO.	REVISIONS	BY	APP	DATE

IMPROVEMENT PLAN

TREE SHADE PLAN

PRELIMINARY PLANS
FOR THE GODDARD SCHOOL

RANCHO CORDOVA **CALIFORNIA**

DESIGNED UNDER THE DIRECTION OF:

COREY CAMERON
P.L.A No. 6625 REGISTRATION EXPIRES: 07-31-22 DATE

DESIGN: LD	DATE: 11-09-21
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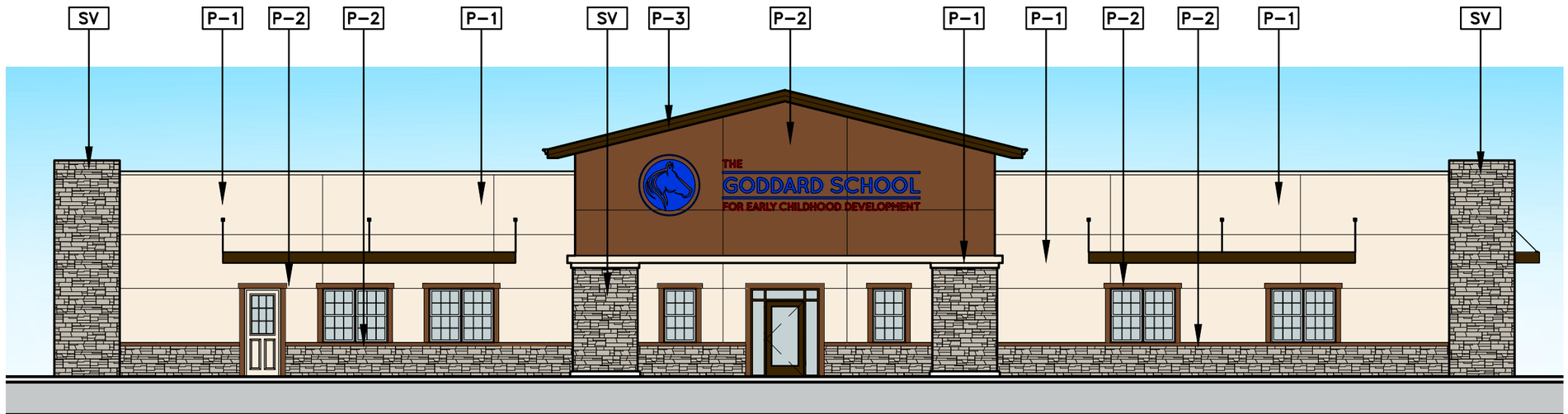
LICENSED LANDSCAPE ARCHITECT COREY CAMERON No. 6625 STATE OF CALIFORNIA

NOT FOR CONSTRUCTION

SHEET
L1.1
7 OF 7 SHEETS

The Goddard School

Zinfandel Dr. Rancho Cordova, CA



P1 | French White
DEW311

P2 | Brown Eyes
DE5265

P3 | Downing to Earth
DET634

SV | Stone - El Dorado Stone
Style - Cliffstone
Color - Whitebark



PERKINS, WILLIAMS & COTTERILL
ARCHITECTS
3320 Data Drive, Suite 200 • Rancho Cordova, California 95670
T (916) 851-1400 F (916) 851-1408 E pwcarch@pwcarchitects.com

January 25, 2022

Bill Pu
WSEE Holding LLC
1601 Merkley Avenue #1350
West Sacramento, CA 95691

Subject: *Trip Generation Memorandum for the Proposed Goddard School Project at 3370 Zinfandel Drive in the City of Rancho Cordova, California*

Dear Mr. Pu:

This memorandum has been prepared to evaluate the trip generating characteristics of the proposed Goddard School project located at 3370 Zinfandel Drive in the City of Rancho Cordova, California.

PROJECT DESCRIPTION

The project site is located at the southwest corner of Zinfandel Drive and Bear Hollow Drive in the City of Rancho Cordova. The existing site is currently vacant. The currently undeveloped parcel will be subdivided into 2 parcels, the westernmost of which will contain the proposed 1.5-acre Goddard School. The school has a projected enrollment of 168 students.

PROJECT TRIP GENERATION

A trip generation analysis has been prepared to determine the net amount of traffic that would be generated by the proposed project.

Peak hour trips for the proposed Goddard School were determined based on data provided by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. Trip generation rates for Day Care Center (Land Use 565) were used in determining project trips.

Morning and evening peak hour trip generation estimates are summarized on Table 1. The project is estimated to generate 131 morning peak hour trips (69 inbound and 62 outbound) and 132 evening peak hour trips (62 inbound and 70 outbound).

TABLE 1
SUMMARY OF PROJECT TRIP GENERATION

Land Use	ITE Code	Unit	Trip Generation Rates [1]					
			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Day Care Center	565	Students	0.413	0.367	0.78	0.371	0.419	0.79

Land Use	Quantity	Unit	Trip Generation Estimates					
			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Day Care Center	168	Students	69	62	131	62	70	132

[1] Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition

Kimley»Horn

DRAINAGE MEMORANDUM

From: Kimley-Horn and Associates, Inc.

Date: 1/19/2022

Subject: Goddard School – Rancho Cordova Rainwater Management Summary

Existing Conditions

The existing site consists of vacant land that with natural land cover and low-lying plantings. It drains from the northwest to southeast corner of the parcel into a catch basin near Bear Hollow Road. The catch basin then outlets into a 24" Storm Drain line which ultimately connects in to the existing 24" Storm Drain line running south along Bear Hollow Road.

Proposed Conditions

The proposed project includes the addition of an approximately 11,500 SF early childhood education facility, associated parking to the west of the building and a play area to the east of the building. Storm water runoff on the site is divided into two drainage areas.

Runoff from the first drainage area, consisting of the building and parking lot area, is directed into catch basins and conveyed via underground HDPE pipe into an infiltration basin located along the western property line. The infiltration basin has been sized to address the requirements for Sacramento County as outlined in the section below. An overflow connection has been provided from the basin which outlets to the southeast corner of the site.

The second drainage area, consisting of the play area, is directed into a vegetated swale along the eastern property line. The swale flows south where it flows into a catch basin that also connects into a pipe along the southeast corner of the site. From that point, water is conveyed via an underground pipe which ties into a catch basin near Bear Hollow Drive.

Water Quality and Quantity

The above ground bioretention basin was designed to capture and treat the storm water runoff based on the Low Impact Development (LID) Best Management Practices (BMP) Design Manual as outlined in the 2018 Commercial LID Credits spreadsheet which has been attached for reference.

The rational method was used to analyze the 100-year event in accordance with the Sacramento Hydrology Manual. This was completed to calculate the peak discharges for the proposed project conditions. The combination of the soil and coverage type was used as the basis to calculate the soil loss rate. See attached documentation.

The Sacramento Hydrology Manual references the use of the Sacramento County Hydrologic Calculator program which implements the standards from the hydrology manual. The program was utilized to complete the hydrology analysis for the current study. The proposed site conditions were

inputted to perform the Sacramento County HEC-1 method with the Hydrologic Calculator which exports a 100-year, 24-hour hydrograph.

Utilizing the exported hydrograph information from the Sacramento Hydrologic calculator program to import into Bently's PondPak program to analyze the ponding requirements for the site. The results of the PondPak program's result are attached which shows a detainment volume for the system of 3,238 cubic feet. The basin shown on the plans is designed with a capacity of about 4,000 cubic feet to adequately detain the full volume from the analysis.

Sacramento Hydrologic Calculator Report

November 10, 2021 11:08

Project Title: Goddard School
Comments:
Prepared by: RC

Method: Sacramento County HEC-1 method
Date: 11/10/2021

Watershed Hydrologic Summary Data

Watershed	Area (acres)	Mean Elevation (ft)	Lag Times		Basin "n"		Loss Rates		Percent Impervious	
			Method	Lag Time (min)	Method	Basin "n"	Method	Loss Rate (in/hr)	Method	Impervious Area (%)
WS001	1.5	100	Travel Time	-	-	-	Computed	-	Specified	75

Travel Time Component Method Data for Lag Time Computation

Watershed	Overflow		Gutter Flow			Channel and Pipe Flow					
	Land Use	Slope (ft/ft)	Length (ft)	Slope (ft/ft)	Side Slope (ft/ft)	Type	Length (ft)	Slope (ft/ft)	Width or Diameter (ft)	Design or Flow (cfs)	Mannings "n"
WS001	Commercial	-	275	0.25	0.02:1	Pipe	185	.0176	0.67	0	0.01
						Pipe	159	0.063	0.67	0	0.01

Infiltration Loss Rate Data

Watershed	Soil Cover Group	Land Use Impervious Area Percent (% or acres)																	
		95	90	85	80	75	70	60	50	40	30	25	20	15	10	5	2	1	1*
WS001	B		100																
	C																		
	D																		

Refer to the help file for Land Use Impervious Area Percent
*Dense Oaks, Shrubs, Vines

Scenario Calculation Summary

Scenario Summary	
ID	1
Label	Base
Notes	
Active Topology	Base Active Topology
Hydrology	Base Hydrology
Rainfall Runoff	Base Rainfall Runoff
Physical	Base Physical
Initial Condition	Base Initial Condition
Boundary Condition	Base Boundary Condition
Infiltration and Inflow	Base Infiltration and Inflow
Output	Base Output
User Data Extensions	Base User Data Extensions
PondPack Engine Calculation Options	Base Calculation Options

Output Summary			
Output Increment	3.000 min	Duration	1,440.000 min

Rainfall Summary			
Return Event Tag		Rainfall Type	(N/A)
Total Depth	(N/A) in	Storm Event	(N/A)

Executive Summary (Nodes)

Label	Scenario	Return Event (years)	Truncation	Hydrograph Volume (ft³)	Time to Peak (min)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
A	Base	0	None	301.000	300.000	1.39	(N/A)	(N/A)
Det-A (IN)	Base	0	None	95,153.000	300.000	1.39	(N/A)	(N/A)
Det-A (OUT)	Base	0	None	88,887.000	1,365.000	1.34	99.657	3,238.000
Outfall A	Base	0	None	88,887.000	1,365.000	1.34	(N/A)	(N/A)

Executive Summary (Links)

Label	Type	Location	Hydrograph Volume (ft³)	Peak Time (min)	Peak Flow (ft³/s)	End Point	Node Flow Direction
Outlet-A	Pond Outlet	Upstream	95,153.000	300.000	1.39	Det-A	Pond Inflow
Outlet-A	Pond Outlet	Outflow	88,887.000	1,365.000	1.34	Det-A	Pond Outflow
Outlet-A	Pond Outlet	Link	88,887.000	1,365.000	1.34		
Outlet-A	Pond Outlet	Downstream	88,887.000	1,365.000	1.34	Outfall A	

Messages

Appendix D-2: Commercial Sites: Low Impact Development (LID) Credits and Treatment BMP Sizing Calculations

Name of Drainage Shed: Goddard Rancho Cordova
Location of project: Sacramento

Fill in Blue Highlighted boxes

Step 1 - Open Space and Pervious Area Credits

Is your project within the drainage area of a common drainage plan that includes open space? If not, skip to 1 b.

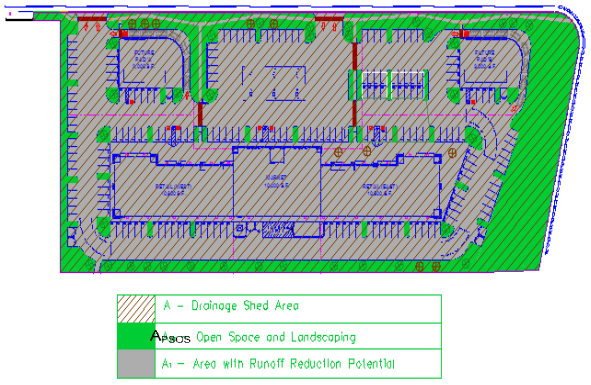
1 a. Common Drainage Plan Area	0	acres	A_{CDP}	
Common Drainage Plan Open Space (Off-project)	0	acres	A_{OS}	see area example below
a. Natural storage reservoirs and drainage corridors	0	acres		
b. Buffer zones for natural water bodies	0	acres		
c. Natural areas including existing trees, other vegetation, and soil	0	acres		
d. Common landscape area/park	0	acres		
e. Regional Flood Control/Drainage basins	0	acres		
1 b. Project Drainage Shed Area (Total)	1.50	acres	A	
Project-Specific Open Space (In-project, communal)**	0.41	acres	A_{PSOS}	
a. Natural storage reservoirs and drainage corridors	0.00	acres		
b. Buffer zones for natural water bodies	0.00	acres		
c. Natural areas including existing trees, other vegetation, and soil	0.00	acres		see area example below
d. Landscape area/park	0.41	acres		
e. Flood Control/Drainage basins	0.00	acres		

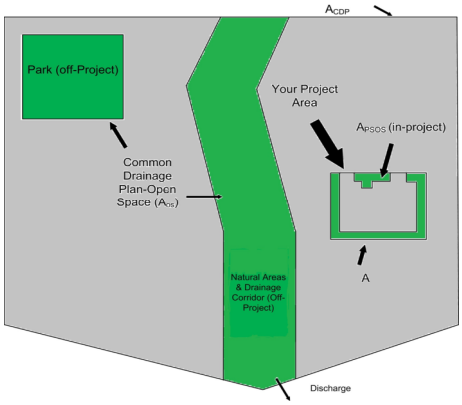
** Doesn't include impervious areas within individual lots and surrounding individual units. That is accounted for below using Form D-1a in Step 2.

Area with Runoff Reduction Potential	$A - A_{PSOS}$ =	1.09	acres	A_T
Assumed Initial Impervious Fraction	A_T / A =	0.73		I

Open Space & Pervious Area LID Credit (Step 1)

$(A_{OS}/A_{CDP}+A_{PSOS}/A)x100$ = 27 pts





Step 2 - Runoff Reduction Credits

Runoff Reduction Treatments	Impervious Area Managed			Efficiency Factor		Effective Area Managed (A_C)	
Porous Pavement:							
Option 1: Porous Pavement (see Fact Sheet, excludes porous pavement used in Option 2)	0	acres	x		=	0.000	acres
Option 2: Disconnected Pavement (see Fact Sheet, excludes porous pavement used in Option 1)	use Form D-2a for credits →					0.00	acres
Landscaping used to Disconnect Pavement (see Fact Sheet)	0.0000	acres			=	0.00	acres
Disconnected Roof Drains (see Fact Sheet and/or Table D-2b for summary of requirements)	0	acres			=	0.00	acres
Ecoroof (see Fact Sheet)	0	acres			=	0.00	acres
Interceptor Trees (see Fact Sheet)	use Form D-2b for credits →					0.00	acres
Total Effective Area Managed by Runoff Reduction Measures				A_C		0.00	acres
Runoff Reduction Credit (Step 2)				$(A_C / A_T)*100$ =		0	pts

Table D-2a

Porous Pavement Type	Efficiency Multiplier
Cobblestone Block Pavement	0.40
Pervious Concrete/Asphalt	0.60
Modular Block Pavement &	0.75
Reinforced Grass Pavement	1.00

Table D-2b

Maximum roof size	Minimum travel distance
≤ 3,500 sq ft	21 ft
≤ 5,000 sq ft	24 ft
≤ 7,500 sq ft	28 ft
≤ 10,000 sq ft	32 ft

Form D-2a: Disconnected Pavement Worksheet

See Fact Sheet for more information regarding Disconnected Pavement credit guidelines

Effective Area Managed (A_C)

Pavement Draining to Porous Pavement

2. Enter area draining onto Porous Pavement	0.00	acres	Box K1
3. Enter area of Receiving Porous Pavement (excludes area entered in Step 2 under Porous Pavement)	0.00	acres	Box K2
4. Ratio of Areas (Box K1 / Box K2)	0.00		Box K3

5. Select multiplier using ratio from Box K3 and enter into Box K4

Ratio (Box D)	Multiplier
Ratio is ≤ 0.5	1.00
Ratio is > 0.5 and < 1.0	0.83
Ratio is > 1.0 and < 1.5	0.71
Ratio is > 1.5 and < 2.0	0.55

Box K4: 1

6. Enter Efficiency of Porous Pavement (see table below) — Box K5

Porous Pavement Type	Efficiency Multiplier
Cobblestone Block Pavement	0.40
Pervious Concrete Asphalt Pavement	0.60
Modular Block Pavement Porous Gravel Pavement	0.75
Reinforced Grass Pavement	1.00

7. Multiply Box K2 by Box K5 and enter into Box K6	0.00	acres	Box K6
8. Multiply Boxes K1,K4, and K5 and enter the result in Box K7	0.00	acres	Box K7

9. Add Box K6 to Box K7 and multiply by 60%, and enter the Result in Box K8 — 0.00 acres
This is the amount of area credit to enter into the "Disconnected Pavement" Box of Form D-2

Form D-2b: Interceptor Tree Worksheet

See Fact Sheet for more information regarding Interceptor Tree credit guidelines

New Evergreen Trees

1. Enter number of new evergreen trees that qualify as Interceptor Trees in Box L1.		trees	Box L1
2. Multiply Box L1 by 200 and enter result in Box L2	0	sq. ft.	Box L2

New Deciduous Trees

3. Enter number of new deciduous trees that qualify as Interceptor Trees in Box L3.		trees	Box L3
4. Multiply Box L3 by 100 and enter result in Box L4	0	sq. ft.	Box L4

Existing Tree Canopy

5. Enter square footage of existing tree canopy that qualifies as Existing Tree canopy in Box L5.	0	sq. ft.	Box L5
6. Multiply Box L5 by 0.5 and enter the result in Box L6	0	sq. ft.	Box L6

Total Interceptor Tree EAM Credits

Add Boxes L2, L4, and L6 and enter it into Box L7	0	sq. ft.	Box L7
Divide Box L7 by 43,560 and multiply by 20% to get effective area managed and enter result in Box L8 This is the amount of area credit to enter into the "Interceptor Trees" Box of Form D-2	0.00	acres	Box L8

Step 3 - Runoff Management Credits

Capture and Use Credits

Impervious Area Managed by Rain barrels, Cisterns, and automatically-emptied systems

(see Fact Sheet) - enter gallons, for simple rain barrels: 0.00 acres

Automated-Control Capture and Use System

(see Fact Sheet, then enter impervious area managed by the system): 0.00 acres

Bioretention/Infiltration Credits

Impervious Area Managed by Bioretention BMPs

(see Fact Sheet)

Bioretention Area ____ sq ft
Subdrain Elevation ____ inches
Ponding Depth, inches ____ inches

0.00 acres

Impervious Area Managed by Infiltration BMPs

(see Fact Sheet)

Drawdown Time, hrs 12 drawdown_hrs_inf
Soil Infiltration Rate, in/hr 2.00 soil_inf_rate

Sizing Option 1: Capture Volume, acre-ft 0.00 capture_vol_inf: 0.00 acres

Sizing Option 2: Infiltration BMP surface area, sq ft 700 soil_surface_area: 0.60 acres

Basin or trench? ____ approximate BMP depth 2.00 ft

Impervious Area Managed by Amended Soil or Mulch Beds

(see Fact Sheet) Mulched Infiltration Area, sq ft ____ mulch_area: 0.00 acres

Total Effective Area Managed by Capture-and-Use/Bioretention/Infiltration BMPs: 0.60 A_{LIDc}

Runoff Management Credit (Step 3) A_{LIDC}/A_T*200 = 109.9 pts

Total LID Credits (Step 1+2+3) LID compliant, check for treatment sizing in Step 4 137.3

Does project require hydromodification management? If yes, proceed to using SacHM.

Adjusted Area for Flow-Based, Non-LID Treatment $A_T - A_C - A_{LIDC}$ = 0.49 A_{AT}

Adjusted Impervious Fraction of A for Volume-Based, Non-LID Treatment A_{AT} / A = 0.33 I_A

Further treatment is required, see choose flow-based or volume-based sizing in Step 4

Step 4a Treatment - Flow-Based (Rational Method)

Calculate treatment flow (cfs): Flow = Runoff Coefficient x Rainfall Intensity x Area

Look up value for i in Table D-2c (Rainfall Intensity): 0.18 i

Obtain A_{AT} from Step 3: 0.49 A_{AT}

Use C = 0.95: 0.95 C

Flow = 0.95 * i * A_{AT}: 0.08 cfs

Table D-2c

Rainfall Intensity			
Roseville	i =	0.20	in/hr
Sacramento	i =	0.18	in/hr
Folsom	i =	0.20	in/hr

Step 4b Treatment - Volume-Based (ASCE-WEF)

Calculate water quality volume (Acre-Feet): WQV = Area x Maximized Detention Volume (P_0)

Obtain A from Step 1: 1.50 A; 12 hrs Specified Draw Down time

Obtain P_0: Maximized Detention Volume from figures E-1 to E-4 in Appendix E of this manual using I_A from Step 2.: 0.17 P_0

Calculate treatment volume (acre-ft):

Treatment volume = A x (P_0 / 12): 0.02 Acre-Feet

v06232012

Sacramento County Recorder
Donna Allred, Clerk/Recorder
BOOK 20160330 PAGE 1232
Check Number 7379
Wednesday, MAR 30, 2016 1:01:03 PM
Ttl Pd $60.00 Rcpt # 0009017236
FCA/34/1-14

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

Allen Matkins Leck Gamble Mallory & Natsis LLP
1901 Avenue of the Stars, Suite 1800
Los Angeles, California 90067
Attention: Anton N. Natsis, Esq.

R&T Code 11911
No Consideration

(Space above this line for Recorder's use only)

DECLARATION OF ACCESS EASEMENTS

This DECLARATION OF ACCESS EASEMENTS (this "**Declaration**") is made effective as of March 30, , 2016, by 3300 ZINFANDEL LLC, a Delaware limited liability company ("**Declarant**").

RECITALS:

A. Declarant is the owner of that certain real property located in the City of Rancho Cordova (the "**City**"), County of Sacramento, State of California, as described more particularly on Exhibit A-1 attached hereto and incorporated herein by this reference (the "**Zinfandel Property**"). Declarant, as owner of, and any successor-in-interest to Declarant 's interest in and to, the Zinfandel Property, shall be referred to herein as the "**Zinfandel Owner**".

B. Declarant is the owner of that certain real property located immediately adjacent to the Zinfandel Property, as described more particularly on Exhibit A-2 attached hereto and incorporated herein by this reference (the "**Bear Hollow Property**"). Declarant, as owner of, and any successor-in-interest to Declarant's interest in and to, the Bear Hollow Property, shall be referred to herein as the "**Bear Hollow Owner**". The Zinfandel Property and the Bear Hollow Property are referred to herein collectively as the "**Property**." The Zinfandel Owner and the Bear Hollow Owner may sometimes hereinafter be referred to individually as an "**Owner**" and collectively as "**Owners**".

C. Declarant hereby desires to grant certain easements in a portion of the Property as set forth below.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, Owners agree as follows:

AGREEMENT

1. Grant of Bear Hollow Easement. Declarant, in its capacity as the Bear Hollow Owner, hereby grants to the Zinfandel Owner, for the use and enjoyment by the Zinfandel Owner and its lessees, sublessees, employees, invitees, guests, successors and assigns, a perpetual, irrevocable and non-exclusive easement (the "**Bear Hollow Easement**") upon, over and across

that portion of the Bear Hollow Property depicted and described in Exhibit B attached hereto (the "**Bear Hollow Easement Area**") for the purpose of vehicular access, ingress and egress (which shall be used primarily for passenger vehicle traffic) between Bear Hollow Drive and the Zinfandel Property.

2. Grant of Zinfandel Easement. Declarant, in its capacity as the Zinfandel Owner, hereby grants to the Bear Hollow Owner, for the use and enjoyment by the Bear Hollow Owner and its lessees, sublessees, employees, invitees, guests, successors and assigns, a perpetual, irrevocable and non-exclusive easement (the "**Zinfandel Easement**") upon, over and across that portion of the Zinfandel Property depicted and described in Exhibit C attached hereto (the "**Zinfandel Easement Area**") for the purpose of vehicular access, ingress and egress (which shall be used primarily for passenger vehicle traffic) between Zinfandel Drive and the Bear Hollow Property. For avoidance of any doubt, Bear Hollow Owner shall have no rights to access or otherwise use the Zinfandel Property other than the Zinfandel Easement Area, for the purposes stated in this Section 2. The Bear Hollow Easement and the Zinfandel Easement, and the Bear Hollow Easement Area and the Zinfandel Easement Area, may be respectively referred to herein as the "**Easement**" and the "**Easement Area.**"

3. Maintenance and Repair of Easement. Zinfandel Owner shall at all times maintain the Easement Area in good condition and repair, ordinary wear and tear excepted. All costs incurred by Zinfandel Owner in connection with any such repairs shall be equitably allocated between the Owners, provided that such determination of the equitable allocation of such repair costs shall be made mutually and reasonably by the Owners, and shall take into account the nature and location of the repair, and the extent to which such repair benefits the other Owner. Further, notwithstanding any contrary provision set forth herein, each Owner shall be solely responsible for all costs of repairing damage caused by it and/or by its agents, employees, tenants, contractors, licensees, guests or invitees, including damage resulting from or by use for which the Easement Area was not designed or by an extraordinary volume of traffic on the Easement Area to and from its Property.

4. Relocation of Easement. Neither Owner shall have the right to relocate the Easement or Easement Area. Notwithstanding the foregoing, the Owners acknowledge that the City of Rancho Cordova may require, in connection with the development of the Bear Hollow Property, that the access point from Zinfandel Drive into to the Zinfandel Property (which access is part of the Zinfandel Easement Area) be relocated to a location on the Bear Hollow Property. Bear Hollow Owner shall be solely responsible for all costs relating to and incurred in connection with such relocation. Further, in such event, the Owners shall record an amendment to this Declaration whereby Bear Hollow Owner grants to the Zinfandel Owner a vehicular access, ingress and egress easement between such relocated access point and drive aisle running along Zinfandel Drive, to the Zinfandel Property.

5. Indemnity. To the fullest extent permitted by law, each Owner shall defend, indemnify, protect and save the other harmless from and all liability whatsoever on account of any damage, injury, lien, claim or demands, costs and expenses, including, without limitation, reasonable attorneys' fees and costs, that arise out of, or relate to, the use of the Easement Area, by such Owner and its employees, guests, tenants, and invitees, except to the extent that any such

Order: Non-Order Search Doc: CASACR:20160330 01232 Page 2 of 14 Created By: ragesh nelluli Printed: 05/0[illegible] Page 658 of 1447

losses are incurred as a result of the gross negligence or willful misconduct of an Owner. This indemnity shall survive the termination of this Declaration.

6. Covenants Running With the Land. All of the easements, rights, obligations, covenants, agreements and conditions contained in this Declaration shall run with the land. This Declaration shall be binding upon and inure to the benefit of each Owner's respective heirs, successors and assigns, devisees, administrators, agents, contractors, representatives, tenants and all other persons acquiring the Zinfandel Property, the Bear Hollow Property, or any portion thereof, or any interest therein, whether by operation of law or in any manner whatsoever.

7. Severability. If any provision of this Declaration or application thereof to any person or circumstance shall to any extent be invalid or unenforceable, the remainder of this Declaration (including the application of such provision to persons or circumstances other than those to which it is held invalid or unenforceable) shall not be affected thereby, and each provision of this Declaration shall be valid and enforced to the fullest extent permitted by law.

8. Mortgagee Protection. A breach of any of the conditions contained in this Declaration shall not defeat or render invalid the lien of any deed of trust or mortgage made in good faith and for value on the Property nor shall any lien created hereby operate to affect or impair the lien of such deed of trust or mortgage; provided, however, that the conditions contained in this Declaration shall be binding upon and effective against any owner of either Property acquired by foreclosure, trustee's sale or otherwise.

9. Attorneys' Fees. If any legal action or proceeding arising out of or relating to this Declaration is brought by any party to this Declaration against any other party to this Declaration, the prevailing party shall be entitled to receive from the other party, in addition to any other relief that may be granted, the reasonable attorneys' fees, costs, and expenses incurred in the action or proceeding by the prevailing party.

10. Entire Agreement. This Declaration contains the entire agreement with respect to its subject matter and no amendment, change or modification of this Declaration shall be valid unless (i) it is in writing and executed by the Zinfandel Owner and the Bear Hollow Owner, or their respective successors or assigns, and (ii) such amendment, change or modification is recorded in the Official Records of Sacramento County, California.

11. Governing Law. This Declaration shall be construed in accordance with, and governed by, the laws of the State of California.

12. Notices. Any notices to be given hereunder shall be given by personal service, or any form of nationally recognized airborne/overnight delivery service. The initial notice address shall be as follows (telephone numbers, facsimile numbers and e-mail addresses are provided for non-formal communication purposes only):

c/o Strada Investment Group
101 Mission Street
Suite 420
San Francisco, California 94105
Attention: Scott Stafford

Phone: (510) 593-3796
Facsimile: (415) 500-2329
Email: sstafford@stradasf.com

With a copy to:

Allen Matkins Leck Gamble Mallory & Natsis LLP
1901 Avenue of the Stars, Suite 1800
Los Angeles, California 90048
Attention: Anton N. Natsis, Esq.
Facsimile: (310) 788-2410
Phone: (310) 788-2400
E-mail: tnatsis@allenmatkins.com

Any such notice shall be deemed to have been given upon delivery. The party delivering Notice shall use commercially reasonable efforts to provide a courtesy copy of each such Notice to the receiving party via electronic mail (provided that such email notice shall not constitute a formal notice under the terms of this Section 12). Either party may change the address at which it desires to receive notice upon giving written notice of such request to the other party. Notwithstanding the foregoing, upon a sale of all or any portion of the Zinfandel Property and/or the Bear Hollow Property, the transferring Owner shall provide written notice to the non-transferring Owner of the new Owner's notice address (including telephone numbers, facsimile numbers and email addresses).

13. Waiver. The waiver by any Owner of the breach by any other Owner of any term, covenant, or condition contained in this Declaration shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained in this Declaration.

14. Non-Merger of Fee and Easement Estates. If under any circumstances both the fee interest in the Property, or any portions thereof, and the corresponding easement interest granted under this Declaration are or become vested in the same owner, this Declaration nevertheless shall not be extinguished by application of the doctrine of merger.

[Signature on following page.]

This Declaration is made effective as of the date set forth above.

"DECLARANT"

3300 ZINFANDEL LLC,
a Delaware limited liability company

By: Strada Zinfandel Holdings LLC,
a Delaware limited liability company,
its Administrative Member

By: _____

Name: Scott Stafford

Title: Manager

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 San Francisco)

On February 29, 2016, before me, Kathryn Hofstetter (insert name of notary),
Notary Public, personally appeared Scott Stafford,
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.

Signature _____ (Seal)

KATHRYN HOFSTETTER
Commission No. 2055857
NOTARY PUBLIC-CALIFORNIA
SAN FRANCISCO COUNTY
My Comm. Expires JANUARY 25, 2018

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SUBORDINATION AGREEMENT

WELLS FARGO BANK, NATIONAL ASSOCIATION (together with its successors, assigns and transferees herein referred to as "**Beneficiary**"), holds the beneficial interest in that certain Construction Deed of Trust and Absolute Assignment of Leases and Rents, Security Agreement and Fixture Filing executed by 3300 Zinfandel LLC ("Borrower"), as Trustor, to American Securities Company, a California corporation, as Trustee, for the benefit of Beneficiary, dated June 30, 2015 and recorded on July 1, 2015 as Instrument No. 20150701-889 in the Official Records of Sacramento County, California, as amended by that certain First Omnibus Modification Agreement (Secured Loan) dated August 13, 2015 as evidenced by that certain Memorandum of First Omnibus Modification Agreement Amending Construction Deed of Trust with Assignment of Leases and Rents, Security Agreement and Fixture Filing recorded August 14, 2015 as Instrument No. 20150814-508 in the Official Records of Sacramento County, California (collectively, the "**Deed of Trust**"), which Deed of Trust encumbers the real property covered by the Declaration of Access Easements ("**Declaration**") to which this Subordination Agreement is attached. Beneficiary now subordinates the Deed of Trust and its beneficial interest thereunder to the Declaration.

Dated: 3/1/16, 2016

BENEFICIARY:

WELLS FARGO BANK, NATIONAL ASSOCIATION

By: _____
Name: Sarah S. Carroll
Title: AVP

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374687-00001/2-22-16/ctl/ctl

Order: Non-Order Search Doc: CASACR:20160330 01232

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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 San Francisco)

On Mar. 1, 2016, before me, Corinne Smit-Ysmael, (insert name of notary),
Notary Public, personally appeared Sarah S. Carroll,
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.

Signature Corinne Smit-Ysmael

CORINNE SMIT-YSMAEL
Commission # 2014593
Notary Public - California
San Francisco County
My Comm. Expires Apr 13, 2017

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374687-00001/2-22-16/ctl/ctl

EXHIBIT A-1

LEGAL DESCRIPTION OF ZINFANDEL PROPERTY

All that real property situated in the State of California, County of Sacramento, City of Rancho Cordova, being more particularly described as follows:

All of Parcel 1, as shown on the Parcel Map of Subdivision No. FM-2015-005-01, filed in Book 226 of Parcel Maps, at Page 3, Sacramento County Records.

End of Description

EXHIBIT A-2

LEGAL DESCRIPTION OF BEAR HOLLOW PROPERTY

All that real property situated in the State of California, County of Sacramento, City of Rancho Cordova, being more particularly described as follows:

All of Parcel 2, as shown on the Parcel Map of Subdivision No. FM-2015-005-01, filed in Book 226 of Parcel Maps, at Page 3, Sacramento County Records.

End of Description

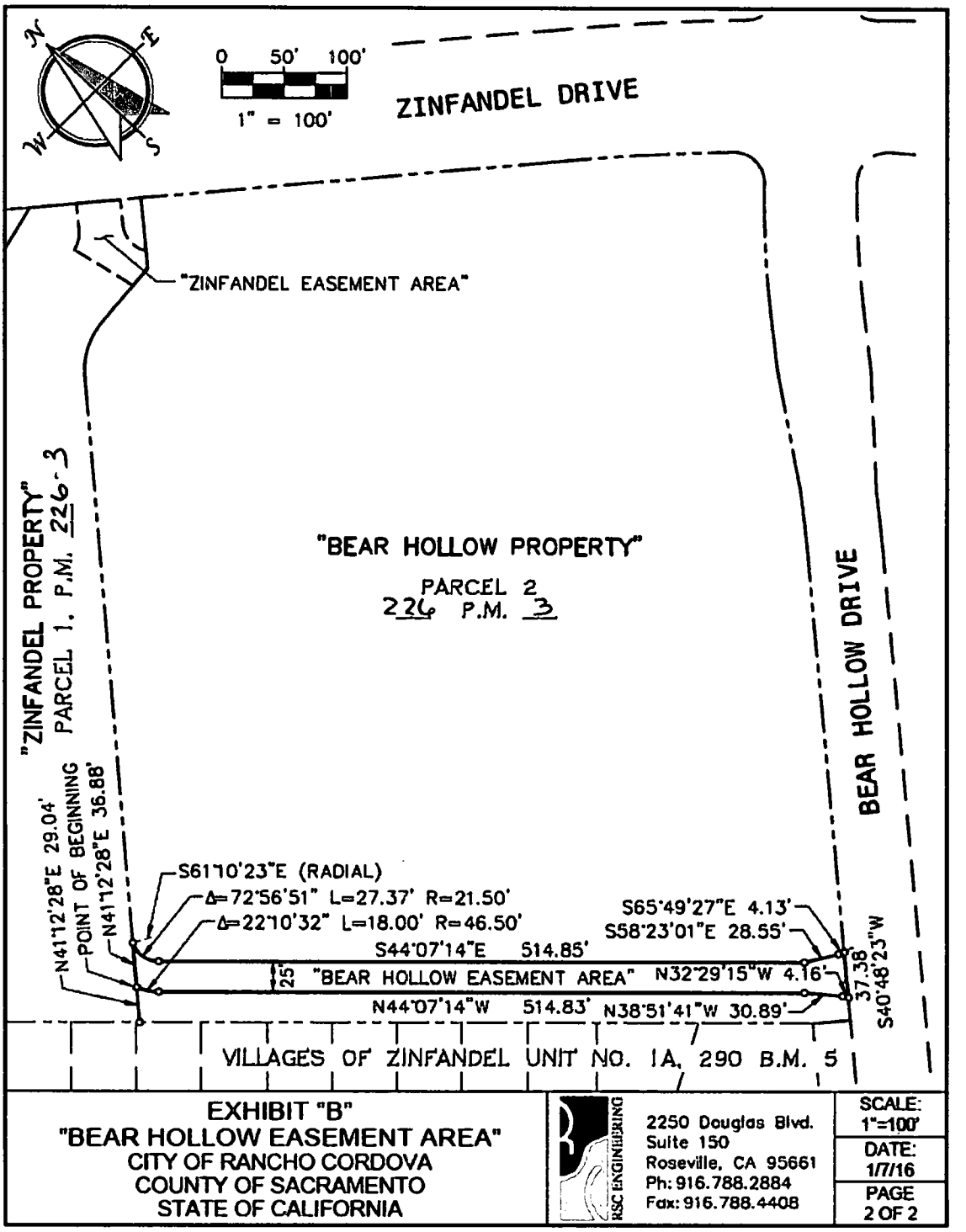
EXHIBIT B

LEGAL DESCRIPTION AND DEPICTION OF BEAR HOLLOW EASEMENT AREA

All that real property situated in the State of California, County of Sacramento, City of Rancho Cordova, being a portion of Parcel 2, as shown on the Parcel Map of Subdivision No. FM-2015-005-01, filed in Book 226 of Parcel Maps, at Page 3, Sacramento County Records, being more particularly described as follows:

Beginning at a point located on the northwesterly boundary of said Parcel 2, which bears North 41°12'28" East, 29.04 feet from the most westerly corner thereof; thence from said point of beginning, along said northwesterly boundary, North 41°12'28" East, 36.88 feet; thence, leaving said northwesterly boundary, along a non-tangent curve to the left, having a radius of 21.50 feet, the radius point of which bears South 61°10'23" East, through a central angle of 72°56'51", with an arc length of 27.37 feet; thence South 44°07'14" East, 514.85 feet; thence South 58°23'01" East, 28.55 feet; thence South 65°49'27" East, 4.13 feet to the southeasterly boundary of said Parcel 2; thence, along said southeasterly boundary, South 40°48'23" West, 37.38 feet; thence, leaving said southeasterly boundary, North 32°29'15" West, 4.16 feet; thence North 38°51'41" West, 30.89 feet; thence North 44°07'14" West, 514.83 feet; thence along a tangent curve to the right, having a radius of 46.50 feet, through a central angle of 22°10'32", with an arc length of 18.00 feet to the point of beginning.

End of Description



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EXHIBIT B
-2-

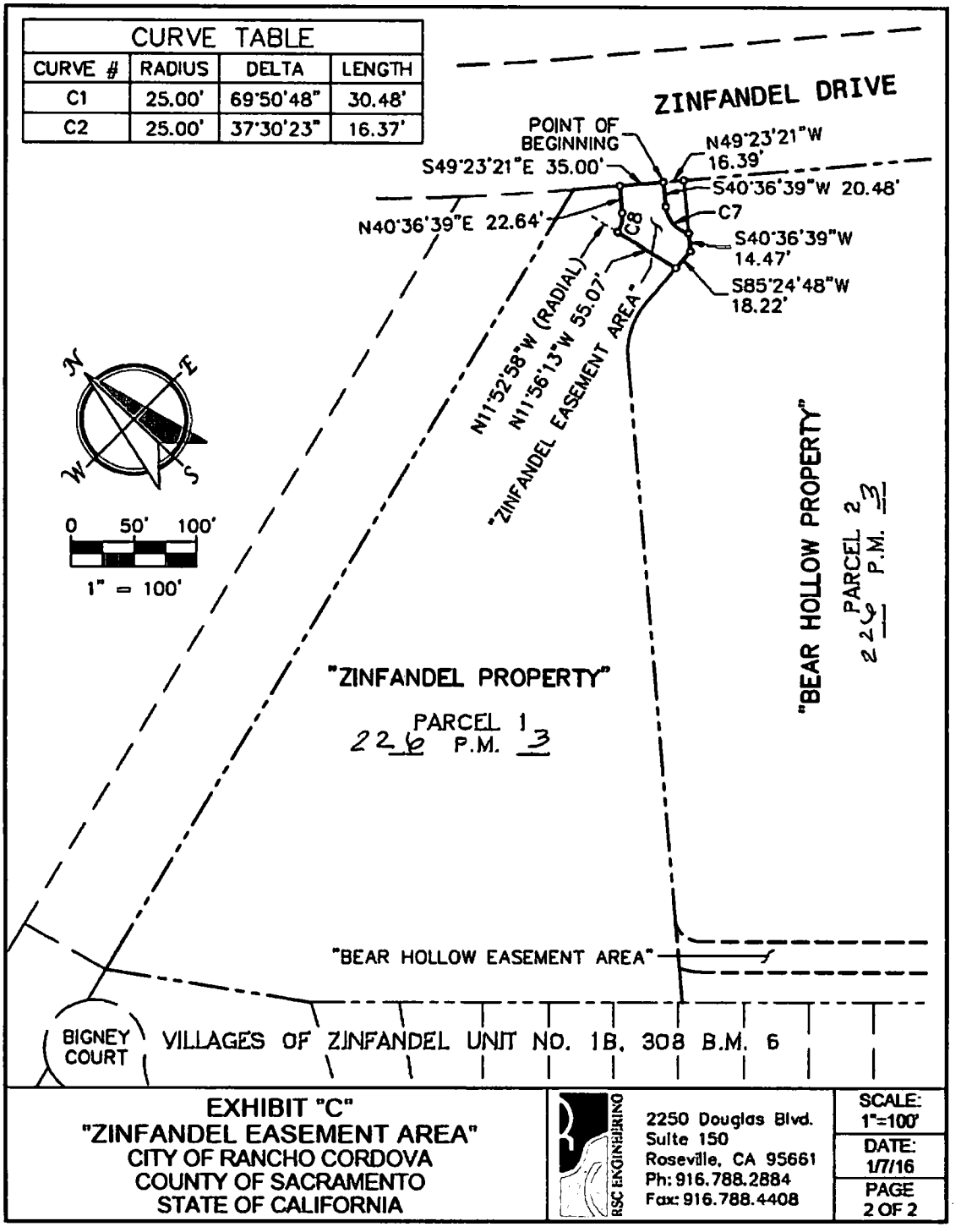
EXHIBIT C

LEGAL DESCRIPTION AND DEPICTION OF ZINFANDEL EASEMENT AREA

All that real property situated in the State of California, County of Sacramento, City of Rancho Cordova, being a portion of Parcel 1, as shown on the Parcel Map of Subdivision No. FM-2015-005-01, filed in Book 226 of Parcel Maps, at Page 3, Sacramento County Records, being more particularly described as follows:

Beginning at a point located on the northeasterly boundary of said Parcel 1, which bears North 49°23'21" West, 16.39 feet from the most easterly corner thereof; thence from said point of beginning, leaving said northeasterly boundary, South 40°36'39" West, 20.48 feet; thence along a tangent curve to the left, having a radius of 25.00 feet, through a central angle of 69°50'48", with an arc length of 30.48 feet to the southeasterly boundary of said Parcel 1; thence, along said southeasterly boundary, the following two (2) courses: (1) South 40°36'39" West, 14.47 feet; and (2) South 85°24'48" West, 18.22 feet; thence North 11°56'13" West, 55.07 feet; thence along a non-tangent curve to the left, having a radius of 25.00 feet, the radius point of which bears North 11°52'58" West, through a central angle of 37°30'23", with an arc length of 16.37 feet; thence North 40°36'39" East, 22.64 feet to said northeasterly boundary of Parcel 1; thence, along said northeasterly boundary, South 49°23'21" East, 35.00 feet to the point of beginning.

End of Description



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EXHIBIT C
-2-

		Category	Timing/ Implementation	Enforcement/ Monitoring
On-Going Conditions				
1.	The approved entitlement is for a Tentative Parcel Map and Major Design Review Permit for the Goddard School as described in the City Council staff report dated March 21, 2022 and attached Tentative Parcel Map (Exhibit A) and Project Plans (Exhibit B) with conditions herein, for project numbers PLND–1021-0008 and PLND-1121-0018.	Project Description	On-Going	Planning
2.	Applicant(s) agree to defend, indemnify and hold harmless with Counsel selected by the City of Rancho Cordova ("City") and its agents, officers, consultants, and employees ("City's Agents") from any and all claims, actions, suits, or proceedings against the City or the City's Agents to attack, set aside, void, or annul an approval by the City, or the City's Agents concerning the project (collectively "Claim"). The City shall promptly notify the Applicant of any Claim and the City shall cooperate fully in the defense. Nothing in this paragraph obligates the City to defend any Claim and the City is not required to pay or perform any settlement arising from any such Claim not defended by the City, unless the settlement is approved in writing by the City.	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

		Category	Timing/ Implementation	Enforcement/ Monitoring
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	Planning
5.	The Permit is valid for a period of three (3) years from the date of City Council approval unless an extension is granted by the Community Development Director or substantial construction of the permitted use or project has commenced and is diligently pursued to completion.	Expiration	On-Going	Planning
6.	Noise sources associated with construction, repair, remodeling, demolition, paving and/or grading of any real property must adhere to the development standards outlined within the City's Noise Element, RCMC 6.68 and RCMC 16.18.1407(F).	Noise	On-Going	Code Enforcement /Building
7.	The removal and replanting of landscape not listed on the approved plan set must be consistent with RCMC 23.716.080 through 23.716.090 and reviewed by the Planning Department prior to the removal. All landscape care, maintenance, and tree pruning must adhere to RCMC 23.716.100 through 23.716.110.	Landscaping	On-Going	Planning
8.	Applicant shall be responsible for all damage to City streets associated with construcitno of the proejct and shall repair any damage as soon as possible	Sidewalk Repair	On-Going	Public Works
9.	All storm drain facilities within private lots shall be privately maintained and shall be clearly labeled as "private" in the improvement plans.	Storm Drain Facilities	On-Going	Public Works
10.	SASD Design Standards and Specifications require minimum 6-inch lower laterals for commercial and industrial buildings	Design Standards	On-Going	Sacramento Area Sewer District

		Category	Timing/ Implementation	Enforcement/ Monitoring
11.	Construction of a grease trap or a sand oil separator may be required. The Applicant must verify with the applicable jurisdiction's building department	Grease Trap / Sand Oil Separator	On-Going	Sacramento Area Sewer District
12.	If the proposed garbage enclosure will contain a drain to the sewer, it must be covered.	Trash Enclosure	On-Going	Sacramento Area Sewer District
13.	SASD prohibits gates that prevent access within sewer easements unless the District standards for accessibility through gates are met.	Gate Installations	On-Going	Sacramento Area Sewer District
14.	Any use of SASD sewer easements, which is not compatible or interferes with the construction, reconstruction, operation, maintenance, or repair of SASD sanitary sewer(s), must not be allowed. Each proposed use must be reviewed and approved in writing by the District Engineeer prior to the use of the easement by the Grantor. This includes landscaping	Sewer Easements	On-Going	Sacramento Area Sewer District
15.	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 within said easement that unreasonably interferes with those needs.	Easements	On-Going	SMUD
16.	In the event the Applicant requires the relocation or removal of existing SMUD facilities on or adjacent to the subject property, the Applciant shall coordinate with SMUD. The Applicant shall be responsible for the cost of relocation or removal.	Relocation or Removal	On-Going	SMUD
17.	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.	Future Facility	On-Going	SMUD

		Category	Timing/ Implementation	Enforcement/ Monitoring
18.	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.	Irrevocable Offer of Dedication	On-Going	SMUD
19.	Applicant shall work with SMUD for any additional permitting required for the project as well as the payment of required fees that may be required as part of SMUD's review.	Additional Permits/fees	On-Going	SMUD
20.	Design Standards and Specifications require minimum 6-inch lower laterals for commercial and industrial buildings.	SASD Design Standards	On-Going	Sacramento Area Sewer District
Prior to Recordation of Map				
21.	Provide a drainage easement along the south edge of Parcel B per ***Section 9-7, County of Sacramento Improvement Standards***. The easement will allow the drainage system from Parcel A to tie into the existing drainage system along Bear Hollow Drive. The easement shall have a minimum width of 15-feet.	Drainage Easement	Prior to Recordation of Final Map	Public Works
22.	A note shall be placed on the final map stating that "Reciprocal access and parking between parcels shown hereon shall be granted/reserved prior to the sale and/or reconveyance of said parcels	Reciprocal Access and Parking	Prior to Recordatin of Final Map	Public Works
23.	Dedicate public utility easements, for the installation and maintenance of water, gas, sewer, drainage facilities, traffic control devices and dry utilities as shown on the tentative map.	Public Utility Easements	Prior to Recordation of Final Map	Public Works
24.	The proposed parcel A is proposed to be served by a private sewer lateral which crosses the proposed parcel B. Therefore, a private sewer easement must be granted from parcel B to parcel A. A note stating the following must be placed on the Final Map: "PRIVATE SEWER EASEMENT TO BE GRANTED TO PARCEL A".	Sewer Easements	Prior to Recordation of Final Map	SASD/ Public Works

		Category	Timing/ Implementation	Enforcement/ Monitoring
25.	Permanent structures, walls, signs and footings will not be permitted within the existing SASD easement area unless express written permission is obtained from SASD.	SASD Easements	Prior to Recordation of Final Map/Approval of Improvement Plans	Sacramento Area Sewer District
Prior to Approval of Improvement Plans				
26.	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 to 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 Metropolitan Fire Department
27.	Show the design for an approved fier 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	Fire Apparatus Turnaround	Prior to Approval of Improvement Plans	Sacramento Metropolitan Fire Department
28.	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. Vehilce 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	Priro to Approvla of Improvement Plans	Sacramento Metropolitan Fire Department

		Category	Timing/ Implementation	Enforcement/ Monitoring
29.	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 orad to bear the required	Fire Apparatus Access Roads	Prior to Approval of Improvement Plans	Sacramento Metropolitan Fire Department.
30.	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 requried fire flow for the protection of commercial devleopments 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 Metropolitan Fire Department
31.	**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

		Category	Timing/ Implementation	Enforcement/ Monitoring
32.	**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, 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	Prior to Approval of Improvement Plans	Public Works

		Category	Timing/ Implementation	Enforcement/ Monitoring
33.	**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. **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
34.	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	Prior to Approval of Improvement Plans	Public Works

		Category	Timing/ Implementation	Enforcement/ Monitoring
35.	**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 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.	Drainage System	Prior to Approval of Imrpovement Plans	Public Works
36.	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
37.	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 Stamp	Prior to Approval of Improvement Plans	Public Works
38.	All storm drain facilities within private lots shall be privately maintained and shall be clearly labeled as "private" in the improvement plans.	Storm Drain Facilities	Prior to Approval of Improvement Plans	Public Works
39.	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

		Category	Timing/ Implementation	Enforcement/ Monitoring
40.	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
41.	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. City arborist shall approve all trees.	Tree Installation	Prior to Approval of Improvement Plans	Public Works
42.	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. Field modifications to new or existing precast manhole bases are not allowed.	Sewer Infrastructure	Prior to Approval of Improvement Plans	Sacramento Area Sewer District
43.	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 buildgin 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.	SASD Connections	Priro to Approval of Improvement Plans	Sacramento Area Sewer Distrcit

		Category	Timing/ Implementation	Enforcement/ Monitoring
44.	Sewer easements will be required to service this parcel. All public sewer easeements will be dedicated to SASD in a form approved by the District Engineer. All public sewer easeements will be at least 20 feet in width and will require continuous access for installation and maintenance. SASD will only provide maintenance in public right-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 Easements	Prior to Approva of Improvement Plans	Sacramento Area Sewer District
45.	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.	Sewer Clearances	Prior to Approval of Improvement Plans	Sacramento Area Sewer District
46.	Lower Laterals must not directly connect to trunk lines (lines with flow greater than 1 MGD)	Lines	Prior to Approoval of Improvement Plans	Sacramento Area Sewer district
47.	The project has an approved Level 3 sewer study. Any changes to the approved study may require an addendum.	Sewer Study	Prior to the SUBMITTAL of Improvement Plans	Sacramento Area Sewer District
Prior to Issuance of Building Permit				
48.	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 plans 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 Submittals	Prior to Issuance of Building Permits	Sacramento Metropolitan Fire Department

		Category	Timing/ Implementation	Enforcement/ Monitoring
49.	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 • Utility laterals • Replace any damaged sidewalk, curb, and gutter along property frontage to the satisfaction of The Public Works Department. Sidewalk panels shall be replaced to the nearest joint and be ADA compliant. • Public improvement plans shall clearly delineate all transitions to existing improvements • All improvements to be designed and constructed to the satisfaction of the Public Works Department. Provide a landscaping plan. Plan shall include landscaping along the strip fronting Zinfandel Drive.	Improvement Plans	Prior to Issuance of Building Permits	Public Works
50.	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 a Building Permit	Sacramento Area Sewer District
51.	Applicant shall submit a a Final Landscape Plan for review with the Building Permit submittal.	Landscape	Prior to Issuance of Building Permit	Planning
52.	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.	Structural Setbacks	Prior to Issuance of Building Permit	SMUD
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 utilities (e.g., Gas, Telephone, etc.).	Utility Clearance	Prior to Issuance of Building Permit	SMUD

		Category	Timing/ Implementation	Enforcement/ Monitoring
54.	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
55.	The Applicant shall dedicate and provide all-weather vehicular access for service vehicles that are up to 26,000 pounds. At a minimum: (a) the drivable surface shall be 20-feet wide; and (b) all SMUD underground equipment and appurtenances shall be within 15-feet from the drivable surface.	Vehicular Access	Prior to Issuance of Building Permit	SMUD
Prior to Final Inspection				
56.	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 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	Prior to Final Building Inspection of the First Unit	Public Works
57.	Install onsite improvements per the approved Public Works plans and to the satisfaction of the Public Works Department.	On-Site Improvements	Prior to Final Inspectino of the First Unit	Public Works

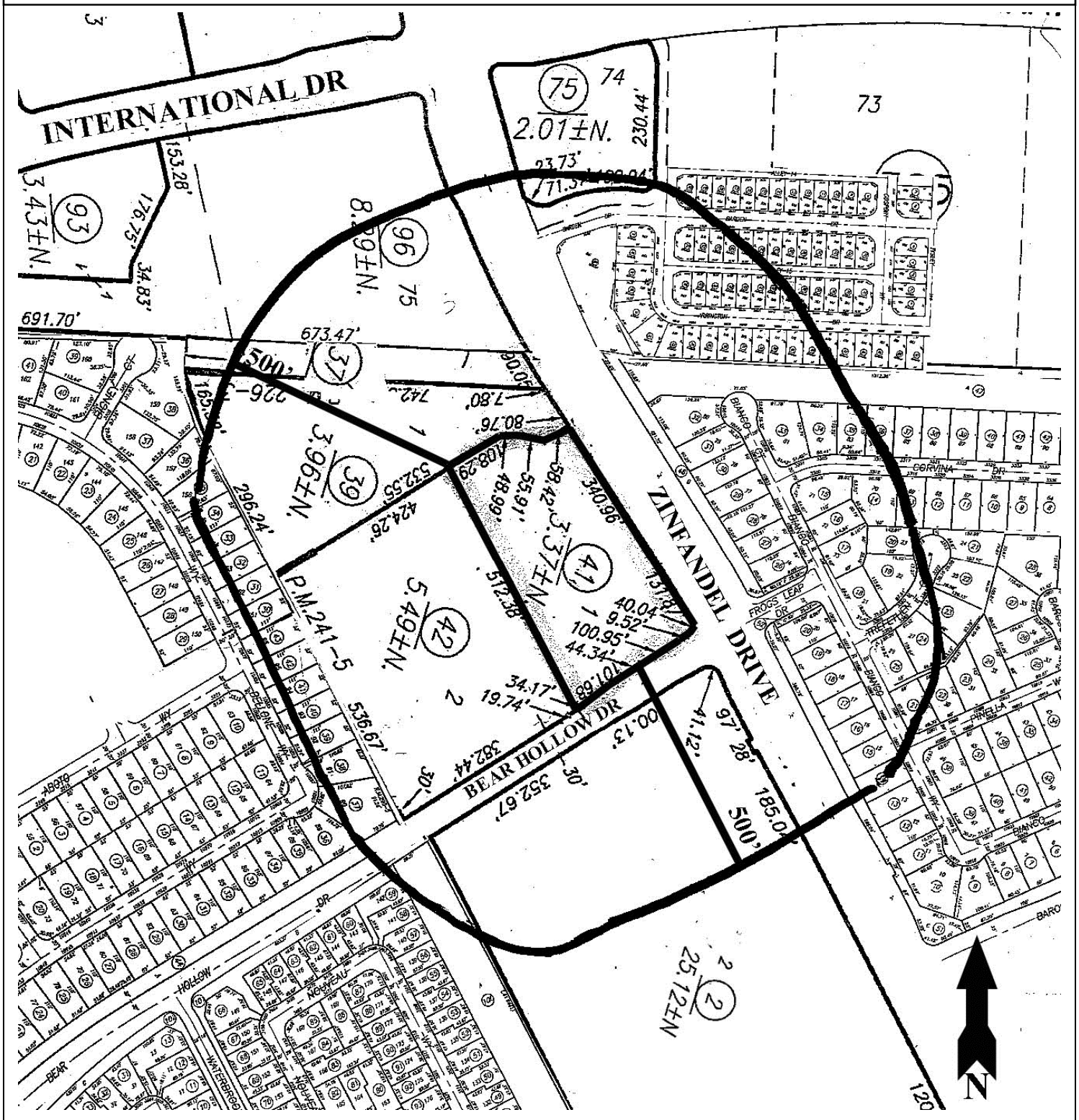
		Category	Timing/ Implementation	Enforcement/ Monitoring
58.	Upon completion of the installation of the landscaping, the designer shall certify that the landscape complies with all city water conserving landscape requirements. Certification shall be accomplished by completion of a certificate of compliance on a form approved by the director of the city public works department. 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.	Water Conservation Requirements	Prior to Final Building Inspection	Public Works
59.	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, or equivalent to the satisfaction of the City Engineer shall be submitted and approved by the Public Works Department.	Drawing Recordation	Prior to Final Building Inspection	Public Works
60.	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.	Addresses	Prior to Final Building Inspection	Sacramento Metro Fire

ADVISORY:

- FIRE: Any Gates shall be installed in accordance with The County Emergency Access Gates and Barriers Standard. Plan submittal is required prior to installation.

Advanced Listing Services Inc
Ownership Listings & Radius Maps
P.O. Box 2593 • Dana Point, CA • 92624
Office: (949) 361-3921 • Cell: (949) 310-6869
www.Advancedlisting.com denise@advancedlisting.com

Subject APN: 072-2360-041-0000 **Address:** 3370 ZINFANDEL DR
500' RADIUS RANCHO CORDOVA CA 95670



#10824
9/13/2021

500' Ownership Listing
500' Occupant Listing
Prepared for:

072-2360-041-0000
RANCHO CORDOVA RETIREMENT RESIDENCE L P
3370 ZINFANDEL DR
RANCHO CORDOVA CA 95670

Corey Hecht
12199 15th Street
Yucaipa CA 92399

WSEE Holding LLC
1601 Merkley Ave. #1350
West Sacramento CA 95691

072-0680-075-0000
6AZ TP3 LLC
2001 WILSHIRE BLVD #420
SANTA MONICA CA 90403

072-0690-096-0000
CEGM RANCHO CORDOVA LLC
200 W MADISON ST #3200
CHICAGO IL 60606

072-1960-014-0000
ZSE CYNTHIA VANG LEE
10896 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1960-015-0000
WENDELL VILLACARLOS
10892 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1960-016-0000
BOLCHI ROJHANI FAMILY TRUST
10888 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1960-017-0000
JULIE E BARETSKY
10884 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1960-018-0000
DENNIS C GODFREY SURVIVORS TRUST
10880 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1960-019-0000
ROWENA KUMAR
200 MOON CIR #221
FOLSOM CA 95630

072-1960-020-0000
JOHN D DYTE
10872 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1960-021-0000
MARCEL ROBERTSON
10901 PINELLA WAY
RANCHO CORDOVA CA 95670

072-1960-022-0000
DENIS MYRMYR
10905 PINELLA WAY
RANCHO CORDOVA CA 95670

072-1960-051-0000 072-1960-052-0000
RECREATION CORDOVA
2729 PROSPECT PARK DR #230
RANCHO CORDOVA CA 95670

072-1970-013-0000
CAMPANA LIVING TRUST
18024 CHICKAREE DR
OREGON CITY OR 97045

072-1970-014-0000
GELEIN FAMILY TRUST
3312 CORVINA DR
RANCHO CORDOVA CA 95670

072-1970-015-0000
MANUEL S MORADA
10857 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1970-016-0000
KEVIN LUONG
10861 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1970-017-0000
INGE SHIRLEY LIVING TRUST
10865 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1970-018-0000
ARTHUR WEINER
9672 175TH PL
REDMOND WA 98052

072-1970-019-0000
NSHAN SIMONYAN
3380 TREFETHEN CT
RANCHO CORDOVA CA 95670

072-1970-020-0000
BABAK & VERONICA JAFARNEJAD
REVOCABLE TRUST
3372 TREFETHEN CT
NIMBUS CA 95670

072-1970-023-0000
GILBERT FAMILY TRUST
3381 TREFETHEN CT
RANCHO CORDOVA CA 95670

072-1970-024-0000
ARMAN DARBINYAN
3385 TREFETHEN CT
RANCHO CORDOVA CA 95670

072-1970-025-0000
KELLEY L WENTWORTH
3389 TREFETHEN CT
RANCHO CORDOVA CA 95670

072-1970-026-0000
AMBER SCHAFFNER
10864 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1970-027-0000
JON LEE
10860 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1970-028-0000
CHRISTINE POK
10856 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1970-029-0000
DIANA RAZMIKOVNA MURADYAN
10852 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1970-030-0000
HUY T LE
10848 BIANCO CT
RANCHO CORDOVA CA 95670

072-1970-031-0000
MICHAEL DIPPON
10844 BIANCO CT
RANCHO CORDOVA CA 95670

072-1970-032-0000
CRYSTAL M HUCKLEBERRY
10840 BIANCO CT
RANCHO CORDOVA CA 95670

072-1970-033-0000
JUSTIN BALL
3301 CORVINA DR
RANCHO CORDOVA CA 95670

072-1970-034-0000
BILLECI FAMILY TRUST
3305 CORVINA DR
RANCHO CORDOVA CA 95670

072-1970-035-0000
CRISTINA CIBOTAR
3309 CORVINA DR
RANCHO CORDOVA CA 95670

072-1970-036-0000
ARMEN TOROSIAN
3313 CORVINA DR
RANCHO CORDOVA CA 95670

072-1970-047-0000, 48, 49
RECREATION CORDOVA
2729 PROSPECT PARK DR #230
RANCHO CORDOVA CA 95670

072-2100-036-0000
KHUSHWINDER S & SURINDER K WARRIN
476 HIGGINS ST
FOLSOM CA 95630

072-2100-037-0000
JAMES L GREATHOUSE
10901 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2100-038-0000
GEORGE MICHESCU
10897 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2100-039-0000
STEVEN ENZO GRASSI
10893 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2100-040-0000
MICAH WELKER
10889 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2100-041-0000
MEGAN A LOSSER
10885 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2100-042-0000
JANE M KWON FAMILY TRUST
10881 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2100-043-0000
DZMITRY HRYNASHKA
10877 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2100-044-0000
RECREATION CORDOVA
2729 PROSPECT PARK DR #230
RANCHO CORDOVA CA 95670

072-2210-030-0000
DAROLD LAWRENCE COOPER LIVING TRUST
11025 ORLEANS RIVER CT
RANCHO CORDOVA CA 95670

072-2210-031-0000
PEDRO ARIZMENDIZ
10869 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2210-032-0000
ANTHONY A HAMILTON
10865 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2210-033-0000
DING ZHOU FAMILY TRUST
44333 PARKMEADOW DR
FREMONT CA 94539

072-2210-034-0000
ROBERT E & SUNJA C YINGLING
10857 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2210-035-0000
POPAL HOMAYOON BAHRAMAN
10853 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2210-036-0000
NY TAN
10849 BELLONE WAY
RANCHO CORDOVA CA 95670

072-2360-002-0000
ELLIOTT ASHTON PLACE LLC
340 PALLADIO PKWY #521
FOLSOM CA 95630

072-2360-037-0000
REC CORDOVA
2197 CHASE DR
RANCHO CORDOVA CA 95670

072-2360-039-0000
CEGM RANCHO CORDOVA LLC
200 W MADISON ST #3200
CHICAGO IL 60606

072-2360-041-0000 072-2360-042-0000
RANCHO CORDOVA RETIREMENT
RESIDENCE L P
2260 MCGILCHRIST ST
SALEM OR 97302

072-2590-059-0000
ESPERANZA SANCHEZ
166 BLACK POWDER CIR
FOLSOM CA 95630

072-2590-100-0000 072-2590-101-0000
RECREATION CORDOVA
2197 CHASE DR
RANCHO CORDOVA CA 95670

072-3050-207-0000
CAPITAL VILLAGE SOUTH
HOMEOWNERS ASSOCIATION
1731 E ROSEVILLE PKWY #140
ROSEVILLE CA 95661

072-3260-019-0000
BELINDA GOCHANGCO
10833 BARDEN
RANCHO CORDOVA CA 95670

072-3260-020-0000
CUONG Q PHAM
10831 BARDEN DR
RANCHO CORDOVA CA 95670

072-3260-021-0000
SHANE SHIMABUKURO
10830 BARDEN DR
RANCHO CORDOVA CA 95670

072-3260-022-0000
SARA PURDY
10832 BARDEN DR
RANCHO CORDOVA CA 95670

072-3260-023-0000
JOHN DYER
10834 BARDEN DR
RANCHO CORDOVA CA 95670

072-3260-024-0000
AMADO FLORES CARRILLO
10836 BARDEN DR
RANCHO CORDOVA CA 95670

072-3260-025-0000
MICHAEL P SKIKOS
5390 ASPEN MEADOWS DR
EL DORADO HILLS CA 95762

072-3260-026-0000
DAVID CHO
10840 BARDEN DR
RANCHO CORDOVA CA 95670

072-3260-027-0000
CHUONG TRAN
5502 DOUGLAS AVE
AUBURN WA 98092

072-3260-037-0000
MARCIA B MCGRATH FAMILY TRUST
11230 GOLD EXPRESS DR #310
GOLD RIVER CA 95670

072-3260-038-0000
SONG FAMILY 2017 TRUST
12053 TIRESIAS WAY
RANCHO CORDOVA CA 95742

072-3260-039-0000
CRUZ GRACIANNE DELA
10845 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-040-0000
2008 DHIRAJ & BHAVNA D TALWAR
FAMILY TRUST
2105 BIG SANDY CT
GOLD RIVER CA 95670

072-3260-041-0000
HANS A GREGERSON
10841 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-042-0000
GARIK GASPARYAN
10839 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-043-0000
TEMUUJIN MUNKHBOLD
10837 ARRINGTON DR
RANCHO CORDOVA CA 95670

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AARON A COCHRAN
10835 ARRINGTON DR
RANCHO CORDOVA CA 95670

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FREDERICK NAGUIT
10833 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-046-0000
MITCHELL OLSON
10831 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-047-0000
JOSH D BONDOC AARON
10820 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-048-0000
ULVIYYA YUSIFOVA
473 11TH AVE
SAN FRANCISCO CA 94118

072-3260-049-0000
SHEILA WING REVOCABLE LIVING TR
10824 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-050-0000
COBBS TRUST
10826 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-051-0000
HEIDI SAYLOR
10828 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-052-0000
JOANNE DAVID
10830 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-053-0000
MARK YIEH
18794 MOUNT LASSEN DR
CASTRO VALLEY CA 94552

072-3260-054-0000
CHANDRA S LALCHANDANI REVOCABLE TR
4110 RIDING CLUB LN
SACRAMENTO CA 95864

072-3260-055-0000
HONG DU
10836 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-056-0000
SAMUEL K STREATER
10838 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-057-0000
DEBORAH E MAGILL
10840 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-058-0000
JUAN CARLOS GONZALEZ
10842 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-059-0000
ASHWIN THIRUNAHARI
1992 LARKHALL CIR
FOLSOM CA 95630

072-3260-060-0000
SOLEDAD F DEGOMEZ
10846 ARRINGTON DR
RANCHO CORDOVA CA 95670

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LOUIS CULLO
10848 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-062-0000
FRANK JOSEPH BISASE
10850 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-063-0000
AMRA MESIC
10852 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-0680-075-0000
OCCUPANT
3301 ZINFANDEL DR
RANCHO CORDOVA CA 95670

072-0690-096-0000
OCCUPANT
3300 ZINFANDEL DR
RANCHO CORDOVA CA 95670

072-1960-019-0000
OCCUPANT
10876 BIANCO WAY
RANCHO CORDOVA CA 95670

072-1970-013-0000
OCCUPANT
3316 CORVINA DR
RANCHO CORDOVA CA 95670

072-1970-018-0000
OCCUPANT
3388 TREFETHEN CT
RANCHO CORDOVA CA 95670

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OCCUPANT
10905 BELLONE WAY
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10873 BELLONE WAY
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10861 BELLONE WAY
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OCCUPANT
3488 NOUVEAU WAY
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OCCUPANT
10838 BARDEN DR
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10849 ARRINGTON DR
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10847 ARRINGTON DR
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10843 ARRINGTON DR
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10822 ARRINGTON DR
RANCHO CORDOVA CA 95670

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10832 ARRINGTON DR
RANCHO CORDOVA CA 95670

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OCCUPANT
10834 ARRINGTON DR
RANCHO CORDOVA CA 95670

072-3260-059-0000
OCCUPANT
10844 ARRINGTON DR
RANCHO CORDOVA CA 95670

SACRAMENTO SANITATION DISTRICT
10060 GOETHE ROAD
SACRAMENTO CA 95827

SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT
10060 GOETHE ROAD
SACRAMENTO CA 95827

SACRAMENTO COUNTY WATER AGENCY
10151 FLORIN ROAD
SACRAMENTO CA 95829

PG&E
2730 GATEWAY OAKS DRIVE
SACRAMENTO CA 95833

PG&E
343 SACRAMENTO STREET
AUBURN CA 95603

SMUD
6301 S STREET MS B304
SACRAMENTO CA 95817

SMUD
6301 S STREET MS B304
SACRAMENTO CA 95817

SMUD
6301 S STREET MS B404
SACRAMENTO CA 95817

SACRAMENTO METROPOLITAN FIRE
10545 ARMSTRONG AVE STE 310
MATHER CA 95655

FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT
1965 BIRKMONT DRIVE
RANCHO CORDOVA CA 95742

GOLDEN STATE WATER COMPANY
3005 GOLD CANAL DRIVE
RANCHO CORDOVA CA 95670

CITY OF RANCHO CORDOVA
2729 PROSPECT PARK DR
RANCHO CORDOVA CA 95670

MEMORANDUM

ITEM 10.4.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

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

SUBJECT: **A RESOLUTION APPROVING THE CITY OF RANCHO CORDOVA'S ADJUSTED STORM DRAINAGE IMPACT FEE SCHEDULE FOR 2022**

RECOMMENDATION

Adopt the Resolution approving the attached Storm Drainage Impact Fee Schedule.

RESULT OF RECOMMENDED ACTION

Approval of the 2022 Storm Drainage Impact Fee Schedule.

BACKGROUND

The City's Storm Drainage Impact Fee Program was established in 2020 through the City Council's adoption of Rancho Cordova Municipal Code (RCMC) Chapter 16.95. The City started collecting fees under this program in March 2021. The fees collected as part of the Storm Drainage Impact Fee Program facilitate new development through construction of major drainage infrastructure that provides regional benefits, while mitigating development impacts of the City's drainage system. The fees are collected at the project approval phase.

On an annual basis, the impact fees are adjusted to account for inflation based on the Engineering News - Record (ENR) index. This year the adjustment is 8.03%. In addition, credits and reimbursements pursuant to RCMC 16.95.110 and 16.95.120 are adjusted annually.

The 2022 Storm Drainage Impact Fee schedule (Attachment 2) includes a table showing the current fees, and the proposed 2022 fees; that will take effect immediately upon approval of this resolution.

FISCAL IMPACT AND FUNDING SOURCE

The proposed resolution will have no impact on the General Fund. Funds collected pursuant to the Storm Drainage Impact Fee Program will be used for City storm drainage purposes.

ATTACHMENT(S)

1. Resolution
2. Storm Drainage Impact Fee Table

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 ADJUSTED STORM DRAINAGE IMPACT FEE SCHEDULE FOR 2022

WHEREAS, the City separated from Sacramento County's Zone 11 drainage fee program and created a Storm Drainage Impact Fee Program in 2020; and

WHEREAS, City Council Adopted Municipal Code Chapter No. 16.95 Establishing The City's Storm Drainage Impact Fee Program In October 2020; and

WHEREAS, the County of Sacramento Board of Supervisors approved the separation of the City of Rancho Cordova from the Zone 11 drainage fee program and the transfer agreement in March 2021; and

WHEREAS, the City started implementing the new Storm Drainage Impact Fee Program in March 2021; and

WHEREAS, annually in January, the City will update the drainage impact fee schedule to account for inflation based on the Engineering News-Record Index, and this year the increase is 8.03%; and

WHEREAS, the adjusted 2022 Storm Drainage Impact Fee Schedule is included in Exhibit A.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA adopts the 2022 Storm Drainage Impact Fee Schedule.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk

Drainage Impact Fee by Land Use - Effective March 2022

Land Use	Percent Impervious	Construction Cost/Acre	Administration Cost/Acre	**Total Fee/Acre**
Commercial/Office/retail[1]	70%	$ 23,412	$ 937	**$ 24,349**
Industrial[1]	70%	$ 23,412	$ 937	**$ 24,349**
High Density Residential	-	-	-	**-**
RMH	75%	$ 25,086	$ 1,004	**$ 26,090**
RD-30[2]	70%	$ 23,412	$ 937	**$ 24,349**
RD-25	70%	$ 23,412	$ 937	**$ 24,349**
RD-20	70%	$ 23,412	$ 937	**$ 24,349**
Medium Density Residential	-	-	-	**-**
RD-15	70%	$ 23,412	$ 937	**$ 24,349**
RD-10	60%	$ 20,068	$ 803	**$ 20,871**
RD-7	50%	$ 16,723	$ 669	**$ 17,392**
RD-6	40%	$ 13,379	$ 535	**$ 13,914**
Low Density Residential	-	-	-	**-**
RD-5	40%	$ 13,379	$ 535	**$ 13,914**
RD-4	38%	$ 12,710	$ 508	**$ 13,218**
RD-3	33%	$ 10,871	$ 434	**$ 11,305**
RD-2	28%	$ 9,198	$ 367	**$ 9,565**
RD-1	25%	$ 8,362	$ 335	**$ 8,697**
AR-1	17%	$ 5,686	$ 227	**$ 5,913**
AR-2	10%	$ 3,344	$ 134	**$ 3,478**
AR-5	10%	$ 3,344	$ 134	**$ 3,478**
AR-10	10%	$ 3,344	$ 134	**$ 3,478**
Mowed Grass with graded and piped to drain	20%	$ 6,689	$ 268	**$ 6,957**
Mowed grass with no piped drainage	10%	$ 3,344	$ 134	**$ 3,478**
Impervious Area of Park[2]	75%	$ 25,086	$ 1,004	**$ 26,090**
School Campus with detention	25%	$ 8,362	$ 335	**$ 8,697**
School Campus	50%	$ 16,723	$ 669	**$ 17,392**

[1] Impervious area for Commercial and Industrial reduced to reflect the use of Low Impact Development (LID) practices, meeting HMP Requirements and increased landscaping standards. Actual fees may vary if LID not utilized.

[2] A school or park that detains greater than 50% of peak flow value, at the discretion of the City, may reduce the fee by 50%.

Drainage Impact Fee by Land Use

Land Use	Percent Impervious	Construction Cost/Acre	Administration Cost/Acre	**Total Fee/Acre**
Commercial/Office/retail[1]	70%	$ 21,673	$ 867	**$ 22,540**
Industrial[1]	70%	$ 21,673	$ 867	**$ 22,540**
High Density Residential	-	-	-	**-**
RMH	75%	$ 23,222	$ 929	**$ 24,151**
RD-30[2]	70%	$ 21,673	$ 867	**$ 22,540**
RD-25	70%	$ 21,673	$ 867	**$ 22,540**
RD-20	70%	$ 21,673	$ 867	**$ 22,540**
Medium Density Residential	-	-	-	**-**
RD-15	70%	$ 21,673	$ 867	**$ 22,540**
RD-10	60%	$ 18,577	$ 743	**$ 19,320**
RD-7	50%	$ 15,481	$ 619	**$ 16,100**
RD-6	40%	$ 12,385	$ 495	**$ 12,880**
Low Density Residential	-	-	-	**-**
RD-5	40%	$ 12,385	$ 495	**$ 12,880**
RD-4	38%	$ 11,766	$ 470	**$ 12,236**
RD-3	33%	$ 10,063	$ 402	**$ 10,465**
RD-2	28%	$ 8,515	$ 340	**$ 8,855**
RD-1	25%	$ 7,741	$ 310	**$ 8,051**
AR-1	17%	$ 5,264	$ 210	**$ 5,474**
AR-2	10%	$ 3,096	$ 124	**$ 3,220**
AR-5	10%	$ 3,096	$ 124	**$ 3,220**
AR-10	10%	$ 3,096	$ 124	**$ 3,220**
Mowed Grass with graded and piped to drain	20%	$ 6,192	$ 248	**$ 6,440**
Mowed grass with no piped drainage	10%	$ 3,096	$ 124	**$ 3,220**
Impervious Area of Park[2]	75%	$ 23,222	$ 929	**$ 24,151**
School Campus with detention	25%	$ 7,741	$ 310	**$ 8,051**
School Campus	50%	$ 15,481	$ 619	**$ 16,100**

[1] Impervious area for Commercial and Industrial reduced to reflect the use of Low Impact Development (LID) practices, meeting HMP Requirements and increased landscaping standards. Actual fees may vary if LID not utilized.

[2] A school or park that detains greater than 50% of peak flow value, at the discretion of the City, may reduce the fee by 50%.

MEMORANDUM

ITEM 10.5.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Michelle Mingay, Senior Finance Analyst

SUBJECT: **RESOLUTIONS AND AN ORDINANCE RELATED TO THE FORMATION OF THE CITY OF RANCHO CORDOVA ARISTA DEL SOL COMMUNITY FACILITIES DISTRICT NO. 2022-1**

RECOMMENDATION

Continue the public hearing to the May 16, 2022 City Council Meeting.

RESULT OF RECOMMENDED ACTION

This item will be continued to the May 16, 2022 City Council meeting.

ATTACHMENT(S)

None

MEMORANDUM

ITEM 10.6.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Nicholas Sosa, Associate Planner

SUBJECT: **DUTCH BROS. COFFEE –CONDITIONAL USE PERMIT AND MINOR DESIGN REVIEW– PROJECT NO. PLND-1021-0013- LOCATED AT THE SOUTHEAST CORNER OF SUNRISE BOULEVARD AND DOUGLAS ROAD IN ANATOLIA MARKETPLACE**

PROPERTY OWNERS:	**APPLICANT/DEVELOPER:**
Anatolia Marketplace, LLC Mark Enes 7919 Folsom Boulevard, Suite 120 Sacramento, CA 95826	Anatolia Marketplace, LLC Mark Enes 7919 Folsom Boulevard, Suite 120 Sacramento, CA 95826

PROJECT:	The Applicant is requesting a Conditional Use Permit and Minor Design Review for a 1,002 SF Dutch Bros. Coffee kiosk building with dual drive-thrus. The project includes significant site improvements including landscaping, outdoor lighting, and an outdoor patio area with seating. The patio area includes a walk-up window for customers as well as a shade canopy for weather protection.
FILE:	PLND-1021-0013
LOCATION:	Southeast corner of Sunrise Boulevard and Douglas Road in Anatolia Marketplace
APN:	067-2370-002-0000
ZONING:	General Commercial (GC)
PLANNER:	Nicholas Sosa, Associate Planner

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would approve a Conditional Use Permit for the requested dual drive- thrus as well as approval of the Minor Design Review for the 1,002 SF Dutch Bros. Coffee kiosk building and coinciding site improvements.

PROJECT HISTORY

The project site is located at the corner of Sunrise Boulevard and Douglas Road and is zoned General Commercial (GC) within the Sunridge Specific Plan Overlay (SDSPO) (**See Figure 1**). The site is located within the Anatolia Marketplace Shopping Center, previously known as Anatolia Retail Center (DD9600) which was originally approved on December 5, 2016 (Resolution 136-2016). The approval included a Major Design Review for the overall layout and design concept of the shopping center, a Conditional Use Permit (CUP) for proposed drive-thrus for pad sites and an Adjustment for a height increase on the center's proposed freestanding signage. In the original approval, the project site was part of a large building, shown as S-1 (**See Figure 2**). Since 2016 the property owners have made some slight modifications to the approved layout under the substantial conformance section (Section 23.110.180) of the Zoning Code. The approved modifications resulted in the division of building S-1 into two separate buildings shown as S-1A and S-1B (**See Figure 3**). This split was followed by a Tentative Subdivision Map (TSM) that was approved on June 15, 2020 (Resolution 70-2020) which placed each building on its own parcel (**See Figure 4**).

Figure 1: Project Location



Figure 2: Original Anatolia Retail Center Layout



Figure 3: Substance Conformance Approval

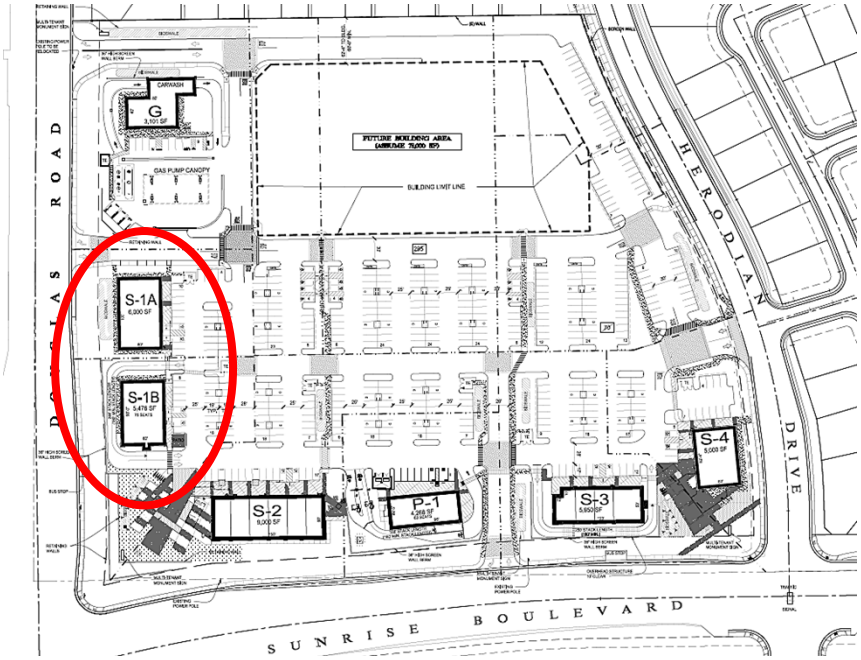
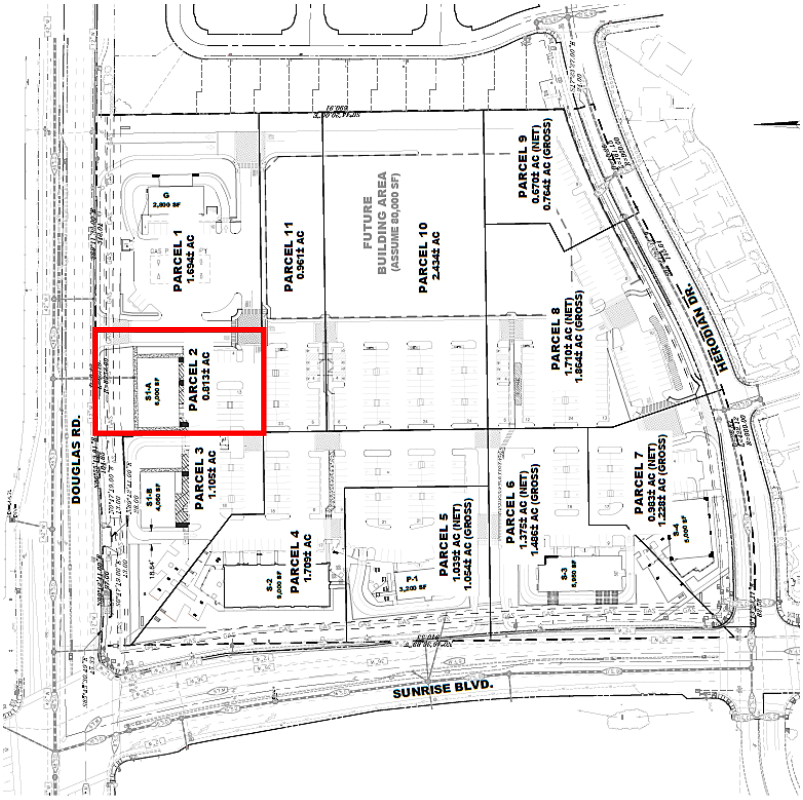


Figure 4: Approved Tentative Map



ANALYSIS

The Applicant is requesting the development of a coffee kiosk with drive-thru services within an approved shopping center. The project will include a 1,002 SF building with 392 SF canopy area and two drive-thru lanes. The project will also include new parking, landscaping, and lighting on-site. The entitlements that will be analyzed individually are as follows.

- Conditional Use Permit
- Minor Design Review

CONDITIONAL USE PERMIT ANALYSIS

The project is located within the Sunridge Specific Plan (SDSP) and is zoned General Commercial (GC). As shown in **Figure 2**, the original approval in 2016 did include a drive-thru for the overall S-1 building. However, when the buildings were split apart into S-1A and S-1B via substantial conformance, the approved drive-thru was moved over to the S-1B building and therefore the drive-thru for this property would be a new drive-thru that would require a separate use permit. Per the Rancho Cordova Municipal code, a coffee drive-thru kiosk is categorized as a “drive-in and drive-thru sales and service” use and per Table 23.316-1, would require the approval of a Conditional Use Permit (CUP) at this location. In addition, the code provides additional development and design standards in Section 23.910.030 that are specific for this type of use, and which were utilized as part of this project’s review.

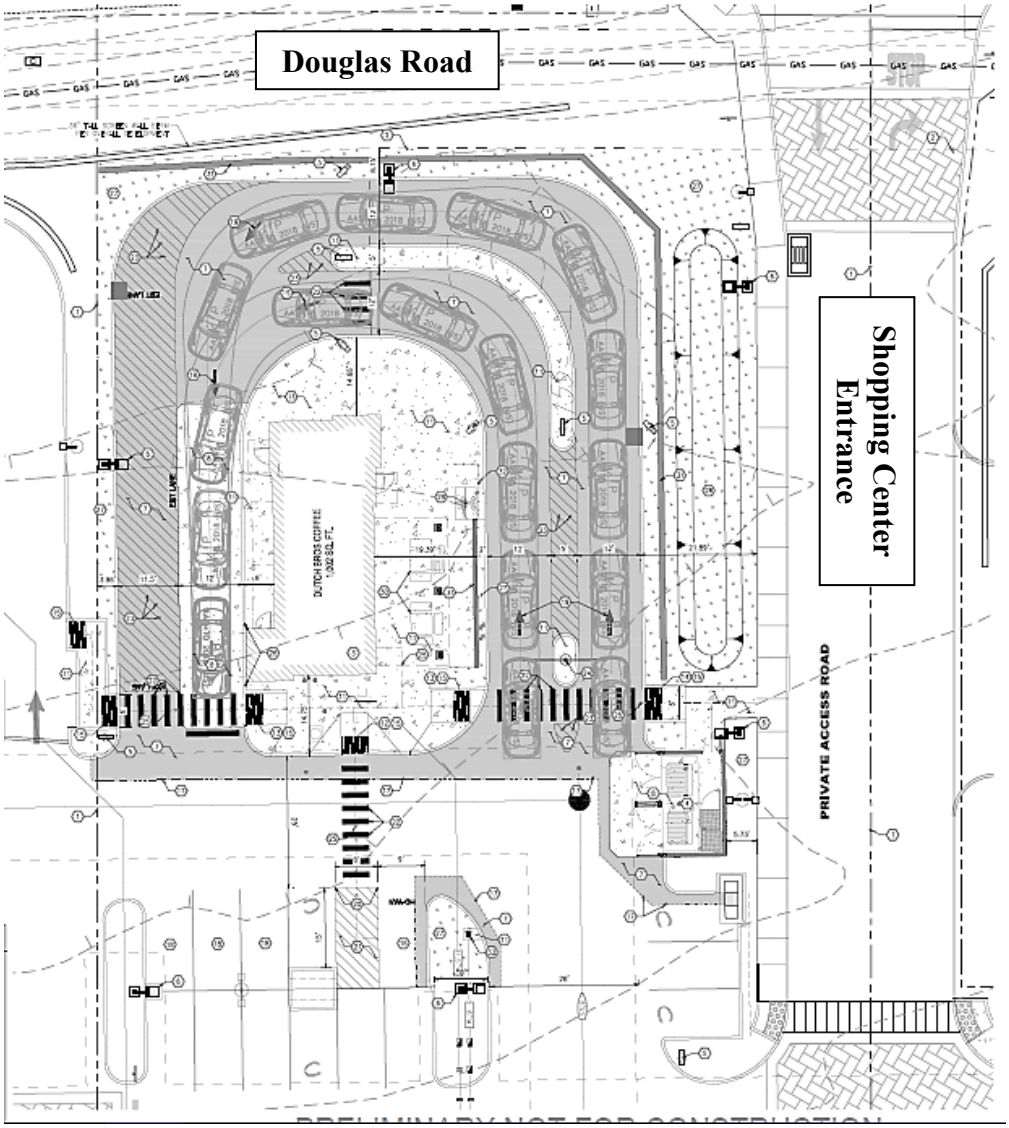
Site Plan Layout:
The overall project site is approximately 0.81 acres in size and consists of a 1,002 SF coffee kiosk building and two drive-thru lanes. The typical customer for a Dutch Bros. Coffee kiosk utilizes the drive-thru however, the Applicant has provided a 392 SF canopy which includes tables and seating to accommodate the pedestrian walk-up window for customers utilizing alternative modes of transportation. In addition to the short-term bicycle parking spaces on-site, the proposed project provides 14 on-site vehicle spaces and will also be included within a Parking and Access Agreement for the overall Anatolia Marketplace Shopping Center. The project includes two drive-thru entrances as well as a drive-thru exit and passing lane; however, the applicant has provided crosswalks to ensure that a direct pedestrian path is maintained from the public sidewalk to other areas of the shopping center. (**See Figure 5**)

Drive-Thru Design and Strategy
As a drive-thru service use, a significant portion of the Dutch Bros. Coffee business is conducted through the drive-thru window and vehicle stacking and traffic control were a high priority as part of this review. In anticipation of a high volume of customers for this use, the Applicant has taken additional precautions to ensure that the business does not affect adjacent properties within the shopping center. The dual drive-thru lanes provide a total of 360 feet of vehicle stacking distance which is twice the minimum amount required by the municipal code (180 ft). This stacking distance can accommodate up to 18 vehicles during peak business hours. The site plan also includes a bypass lane which allows customers to exit the drive-thru should they receive their drink prior to the person in front of them, further reducing the number of vehicles in the stacking lane. The drive-thru design also includes the required 30-inch screening wall to screen the headlights of vehicles that are waiting in the queue from passersby along Douglas Road and the adjacent shopping center entrance. This screen will have stone veneer consistent with the overall shopping center and proposed building (**See Figure 5**)

In addition to the project's increased stacking capability, Dutch Bros. Coffee is also proposing, what they call, a runner system, that is designed to increase speed and efficiency in serving drive-thru customers. This business does not have the traditional menu order board and instead employee "runners" travel from vehicle to vehicle to greet customers and take orders throughout the drive-thru utilizing a handheld device to transmit orders to drink station employees within the building. Runners are also able to process payment with this device which reduces time at the drive-up window where the customer can pick up their order and exit the site. If an order is completed prior to the customer reaching the window, the order will be brought to the customer in the drive-thru lane and the customer can utilize the bypass lane to exit the site, reducing the number of vehicles unnecessarily waiting in the drive-thru lane.

As a proactive measure, Dutch Bros. Coffee also requires all employees to attend a monthly meeting to discuss traffic plans in detail. Employees will gather before each shift to ensure that a traffic strategy is set and followed. There are approximately 3-4 runners per shift and 1 additional staff member added whose sole responsibility is traffic control which includes instructing vehicles to pull forward, directing cars into waiting areas or bypass lanes, and ensuring cars are not blocking the road or other areas that are not allowed to be blocked.

Figure 5: Project Site Plan



Traffic

The Applicant has worked directly with the Public Works Department regarding any potential traffic concerns that could affect the City's public rights of way. The Applicant has provided a Trip Generation Analysis for on-site circulation as well as a Traffic Signal Warrants Analysis and Safety Assessment for westbound left turns at the Anatolia Marketplace Access Intersection on Douglas Road.

The Trip Generation Analysis compared the proposed Dutch Bros. Coffee site design and location to other locations in both Stockton and other areas of Northern California with similar traffic designs and strategies. The comparison showed that the largest number of concurrent vehicles at the busiest of the three locations was in the range of 13 to 16 vehicles within the queue at peak hours. The proposed design has the capacity for up to 18 vehicles to be stacked within drive-thru lanes and therefore the design was determined to be adequate. Should the queueing exceed 18 vehicles at any point, Dutch Bros. Coffee has a temporary traffic control strategy that guides additional vehicles through the parking lot aisle and away from the

shopping center entrance and any public right of way. This control measure is proposed to be precautionary and queueing beyond 18 vehicles is not anticipated.

The Traffic Signal Warrants Analysis provided an additional assessment of how the project may trigger the need for traffic signal control at the intersection of Douglas Road and the Anatolia Shopping Center entrance. The Applicant worked with the Public Works Department regarding this analysis, and it was agreed that left turns into the Anatolia Marketplace Driveway will continue to be feasible with the proposed project and that no additional traffic signal would be necessary at this intersection.

CONDITIONAL USE PERMIT FINDINGS

As required per Zoning Code section 23.134.070, Conditional Use Permits are a discretionary quasi-judicial decision by City Council. Council may approve or approve with conditions an application for a Conditional Use Permit after all the following findings and evidence are met:

A. Finding: The site size, dimensions, location, topography, and access are adequate for the needs of the proposed use, considering the proposed building mass, parking, traffic, noise, vibration, exhaust/emissions, light, glare, erosion, odor, dust, visibility, safety, and aesthetic considerations.

   Evidence: The proposed project is for a 1,0002 SF coffee kiosk drive-thru service use. The proposed location is adequate for the needs of the proposed use and provides sufficient parking, outdoor seating area, and more than accommodates the required vehicle stacking distance. The use does not utilize traditional menu ordering boards and therefore reduces the amount of noise for a drive-thru use. The project is also located away from neighboring residential uses and will not create any lighting concerns for adjacent properties.

B. Finding: The negative impacts of the proposed use on adjacent properties and on the public can be mitigated through application of other code standards or other reasonable conditions of approval.

   Evidence: The Applicant thoroughly analyzed potential on-site and off-site traffic concerns regarding the proposed use and has provided more than adequate vehicle stacking distance to minimize queuing onto adjacent properties. The Applicant is meeting the required additional development standards required for drive-thru service uses and has provided their traffic control strategy for the site which has been shown to be effective at other Dutch Bros. Coffee locations. The Applicant has also provided additional analysis to show that there will be no off-site traffic effects to public rights of way and that any additional trips to the property by customers will not significantly impact the intersection of Douglas Road and the Anatolia Shopping Center access point.

C. Finding: All required public facilities have adequate capacity to serve the proposal.

   Evidence: The overall shopping center was intended for retail and restaurant uses and the public facilities intended for the shopping center have been constructed to provide adequate capacity to serve the proposed use.

D. Finding: The project meets the requirements of the zoning code including development standards, design guidelines, and special use provisions.

Evidence: The project location is zoned General Commercial (GC) which allows for a drive-thru service use with the approval of a Conditional Use Permit. The proposed drive-thru is meeting all required development standards as well as special use development standards specifically for drive-thru uses. These special standards include minimum lane widths for drive-thru aisles, distance requirements for ingress and egress to drive-thrus, as well as additional landscape requirements and pedestrian access. The proposed use has met all applicable requirements.

E. Finding: If structures and site plans are considered nonconforming, the elements of a project that are nonconforming have been brought into compliance with the Zoning Code, where feasible.

Evidence: The proposed project would be a new development and has been reviewed with current codes and regulations. There are no nonconforming structures or aspects of the site plan that are included as part of this project.

MINOR DESIGN REVIEW

A minor design review is required for new construction of nonresidential buildings equal to or greater than 1,000 SF and less than 5,000 SF as well as significant changes to all nonresidential site plans that impact required site plan elements. The proposed project is for a 1,002 SF building and involves a completely new development which includes landscaping, drive-thrus, and parking and lighting areas. Therefore, a minor design review approval is required for this project.

Elevations

The proposed coffee kiosk building is 24 feet in height at its tallest point with multiple metal awnings and is consistent with the company's standard design for Dutch Bros. Coffee with their signature blue and gray color scheme. However, the building does incorporate materials such as fiber cement wood-like siding, a medium sand body color, and stone veneer that is consistent with the original paint and materials that were approved as part of the overall shopping center in 2016. The stone veneer will also be incorporated into the pillars of the 392 SF canopy for walk up orders and outdoor seating as well as the 30-inch screening wall along the drive-thru. This allows the building to blend in with any future buildings constructed on-site while also maintaining a signature Dutch Bros. Coffee look. All roof-mounted mechanical equipment will be screened from public view as required by the Rancho Cordova Zoning Code **(See Figures 6-9).**

Figure 6: South Elevation Facing Parking Lot

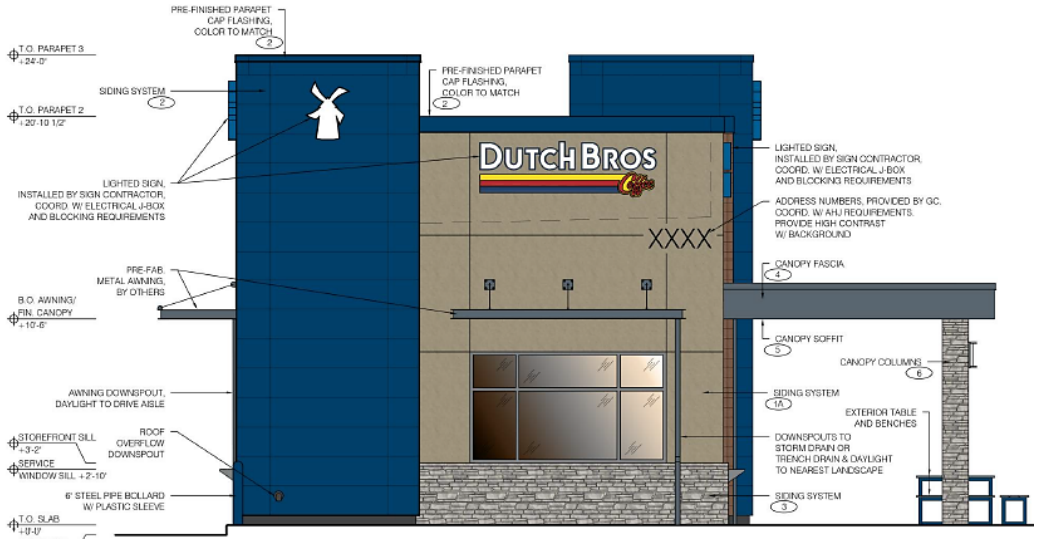


Figure 7: East Elevation Facing Shopping Center Entrance

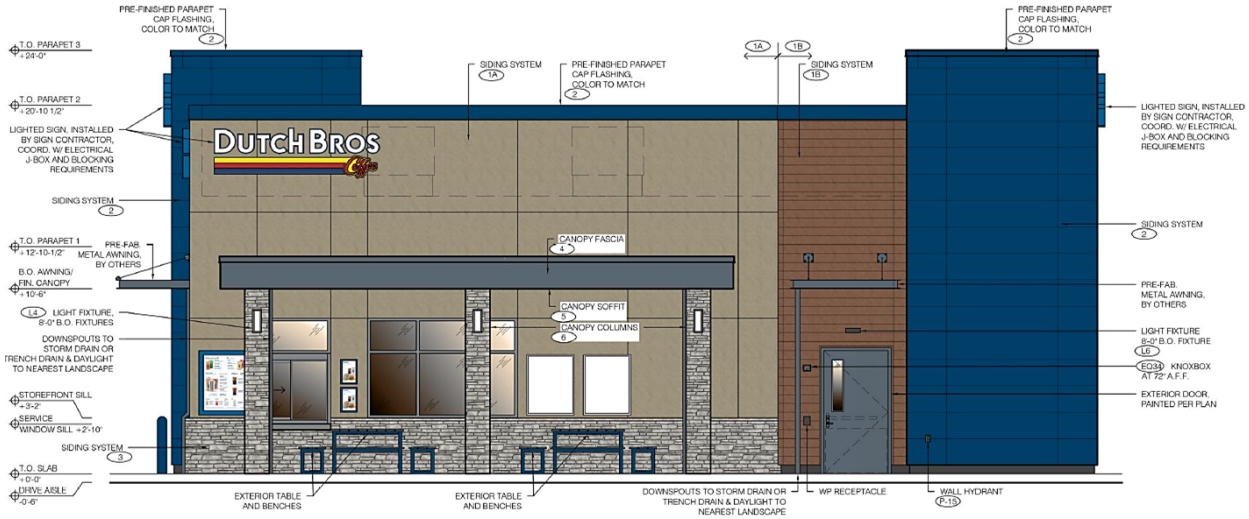


Figure 8: North Elevation Facing Douglas Road

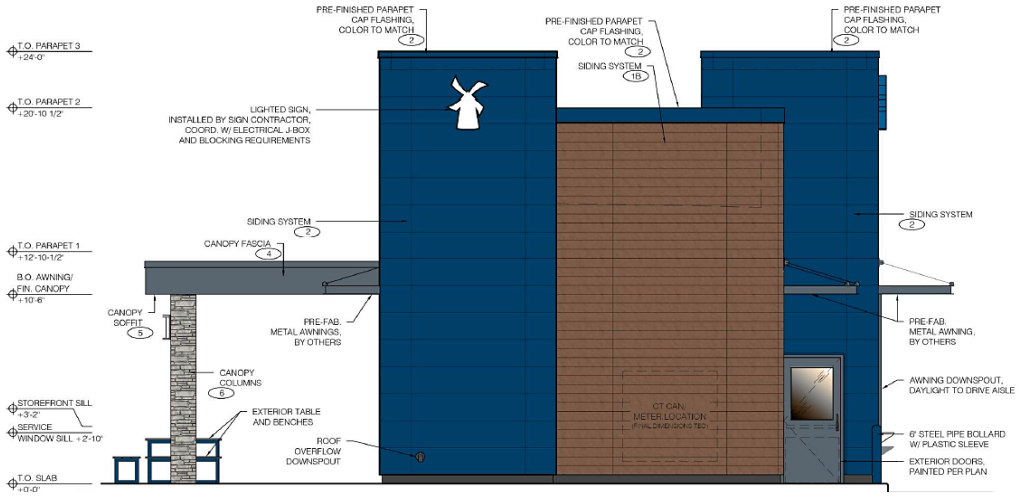


Figure 9: West Elevation Facing Pad S-1b

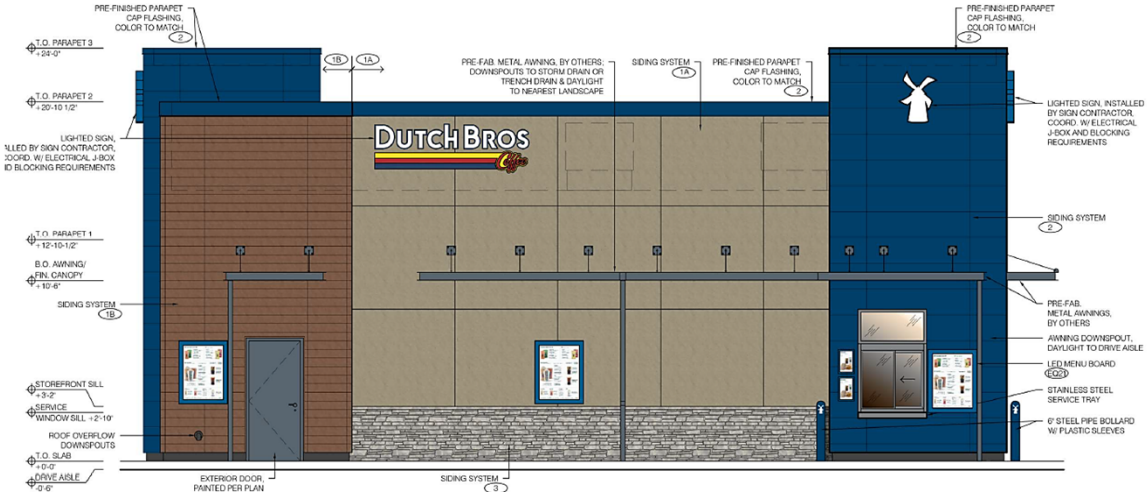


Figure 10: Elevation Renderings



LOOKING NORTH-EAST



LOOKING SOUTH-EAST



LOOKING SOUTH-WEST



LOOKING NORTH-WEST

Lighting:
The project has proposed adequate lighting throughout the property that meets the requirements for Chapter 23.725: Outdoor Lighting as well as the requirements and standards of Chapter 23.719.090: Design standards for surface parking lots, of the Rancho Cordova Zoning Code. All parking lot lighting and shopping center lighting was approved as part of the original shopping center approval.

Landscaping:
The project proposes a variation of landscaping throughout the site in addition to the 35-foot landscape and pedestrian easement along Douglas Road that was already approved as part of the shopping center. The preliminary landscape plan shows a bioswale along the entrance to the shopping center to the east, tree planting for parking lot shading requirements as well as trees planted along the west side of the site separating the drive-thru from the adjacent property. Additional shrubs and groundcover will also be included along the drive-thru screening wall proposed along the shopping center entrance and Douglas Road (**See Figures 11 & 12**)

Figure 11: Preliminary Landscape Plan

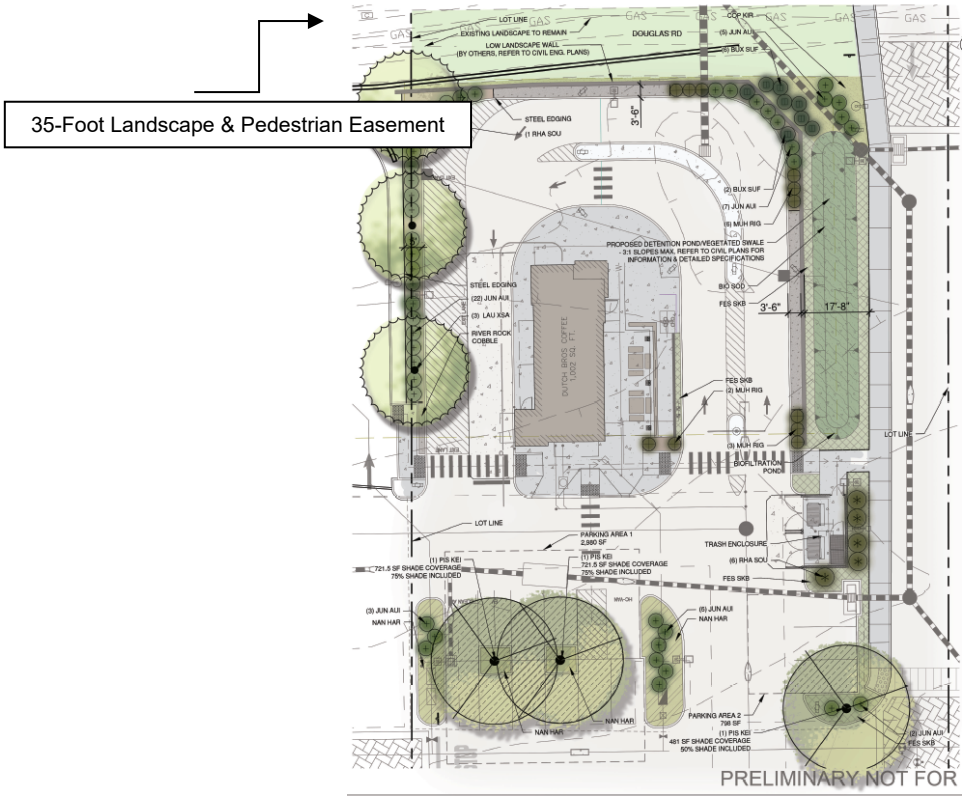
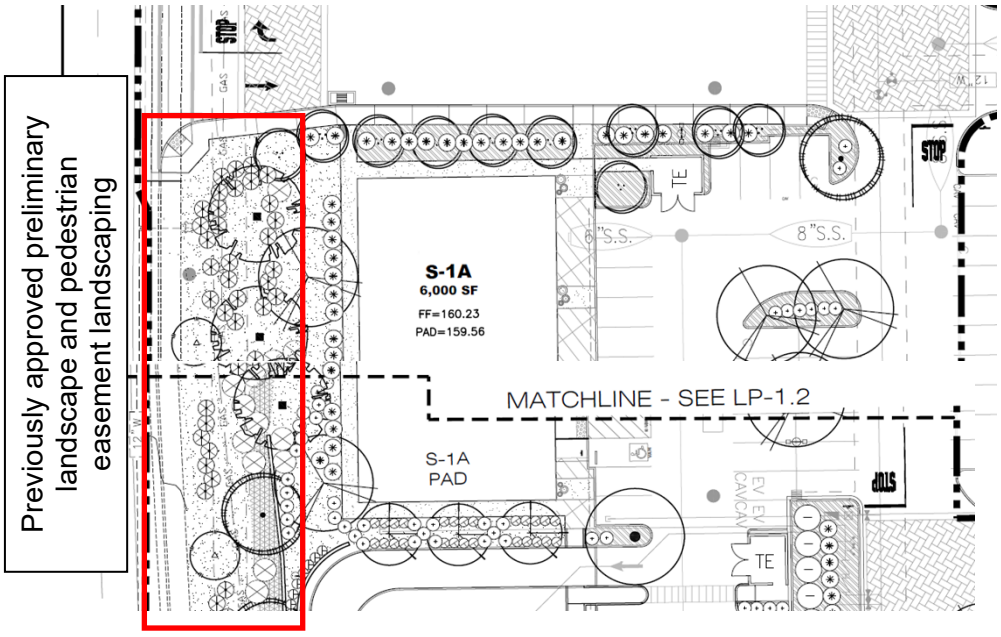


Figure 12: Landscape Area to be Installed by Shopping Center



MINOR DESIGN REVIEW FINDINGS & EVIDENCE

As required per Zoning Code section 23.140.070, the approval authority shall approve or approve with conditions an application for a minor design review after all of the following findings are met:

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 proposed site location is within the Commercial Mixed Use (CMU) general plan land use designation and is consistent with the objectives of that designation. The proposed Dutch Bros. Coffee building is also consistent with all applicable standards and requirements of the Sunridge Specific Plan and Rancho Cordova Municipal Code. The project adhered to the Rancho Cordova Design Guidelines as well as additional use specific requirements for drive-thru service uses.

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 location is currently an undeveloped shopping center that is in early stages of construction. The proposed architecture, site design, and landscape are suitable for a drive-thru use. The proposed drive-thru lanes are screened as required by the Rancho Cordova Municipal Code and the applicant included an outdoor patio seating area to encourage a pedestrian friendly gathering space for customers and nearby residents. The development of the site will enhance the character of the neighborhood.

C. Finding: The architecture, including the character, scale, and quality of 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 architecture has been reviewed to ensure that the project is consistent with the overall design concept of the previously approved shopping center. The design proposes Dutch Bros. Coffee's signature blue and gray color scheme and incorporates the main base color, stone veneer, and wood siding used on the other buildings throughout the shopping center. Once constructed, the proposed building will be consistent with adjacent properties and other buildings within the shopping center.

D. Finding: The proposed project will not create conflict with vehicular, bicycle, or pedestrian transportation modes of circulation.

   Evidence: The Applicant included a trip generation analysis as well as a traffic signal warrants analysis and safety assessment as part of their project submittal. These items were thoroughly reviewed by the Public Works Department, and it was determined the proposed use would not have a significant impact on off-site traffic circulation. The applicant has also proposed a vehicle stacking distance twice the minimum required distance and a specific traffic control strategy for their drive-thru queueing in order to

ensure that the drive-thru does not interfere with on-site circulation. The Applicant has also included pedestrian walkways across the drive-thru lanes to ensure pedestrian connections are still maintained to public rights of way. No conflicts with circulation will be created as part of the proposed project.

GENERAL PLAN AND ZONING ORDINANCE CONSISTENCY

General Plan:
The project site is located within a Commercial Mixed Use (CMU) general plan designation. The Commercial Mixed-Use category encourages the integration of retail and service commercial uses with office and/or residential uses. Although Dutch Bros. Coffee primarily provides drive-thru services for its customers, the Applicant also includes a walk-up window and outdoor patio area to provide a pedestrian friendly experience for customers and residents of the adjacent residential area.

Zoning Ordinance:
The project site is zoned General Commercial (GC) within the Sunridge Specific Plan (SDSP). The SDSP encourages a mix of uses organized around the residential neighborhood unit. The SDSP is primarily residential however, it also provides for some complementary commercial areas. The three core commercial areas of the specific plan are the Sunridge Shopping Center across the street from the proposed project site, Anatolia Marketplace which is currently under construction and where the proposed project is to be located, and the Montelena Shopping Center on the corner of Douglas Road and Rancho Cordova Parkway. The proposed drive-thru service use is allowed as part of the GC zone within the SDSP and meets all required standards and requirements that are applicable per the specific plan and the Rancho Cordova Zoning Code.

ENVIRONMENTAL

The Minor Design Review associated with the Anatolia Marketplace Dutch Bros. Coffee would be exempt from CEQA review under CEQA State Guidelines Section 15183. This section exempts from CEQA projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. The Anatolia Marketplace Dutch Bros. Coffee Minor Design Review involves construction and operation of a new Dutch Bros. Coffee located within the Sunridge Specific Plan area. The commercial site was previously approved as part of the overall Anatolia Marketplace Retail Center project and was identified in the Sunridge Specific Plan Revised EIR (2011, SCH 1997022055). As this Minor Design Review is consistent with the Sunridge Specific Plan and the environmental documentation prepared for the Sunridge Specific Plan, it is exempt from CEQA review.

An assessment of traffic operations was prepared for the proposed Dutch Bros. Coffee to determine whether the Dutch Bros. Coffee is consistent with the assumptions for site development made when the Anatolia Marketplace was approved. The assessment concludes that the project plan has the capacity to accommodate anticipated queuing on site, and if a longer queue was to occur, the aisle through the parking lot has the adequate length to ensure that any vehicle queuing would not extend into a public right of way or interfere with overall shopping center access to Douglas Boulevard.

The project does not have any project-specific significant effects peculiar to the Minor Design Review and not identified in the previous environmental documentation, therefore, the project is exempt and no environmental document pursuant to CEQA is required.

RECOMMENDED MOTIONS

Staff recommends that the City Council take the following action:

- Find that the project is Exempt from CEQA per CEQA State Guidelines Section 15183, Projects Consistent with a Community Plan, General Plan, or Zoning; and
- Approve the Resolution for a Conditional Use Permit (CUP) and Minor Design Review for the Anatolia Marketplace Dutch Bros. Coffee – Project No. PLND-1021-0013.

ATTACHMENT(S)

1. Resolution
2. Exhibit A to the Resolution– Project Plans
3. Exhibit B to the Resolution – Conditions of Approval
4. 500’ Radius Map and Labels

CITY OF RANCHO CORDOVA

CITY COUNCIL RESOLUTION NO. XXX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING A CONDITIONAL USE PERMIT AMENDMENT AND MINOR DESIGN REVIEW FOR THE ANATOLIA MARKETPLACE DUTCH BROS. COFFEE – PROJECT NO. PLND-1021-0013

WHEREAS, Anatolia Marketplace, LLC (hereinafter referred to as Applicant) filed an application with the City of Rancho Cordova for a Conditional Use Permit Amendment and Minor Design Review approval for the Anatolia Marketplace Dutch Bros. Coffee project; and

WHEREAS, the project site is located within the Anatolia Marketplace shopping center located at the southeast corner of Douglas Road and Sunrise Boulevard within a General Commercial (GC) zoning designation; and

WHEREAS, the proposed project is for a 1,002 SF coffee kiosk with dual drive-through lanes which is considered a drive-through service use and requires a Conditional Use Permit and Minor Design Review per Rancho Cordova Municipal Code Table 23.316-1; and

WHEREAS, the City Council is the appropriate authority to hear and take action on this project; and

WHEREAS, the project is consistent with a Community Plan, General Plan, or Zoning and would not result in any significant effects to the environment, and therefore was determined to be Exempt per California Environmental Quality Act Section 15183 (Consistent with a Community Plan, General Plan, or Zoning): and

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 and is exempt per California Environmental Quality Act Guidelines Section 15183 “Consistent with the Community Plan, General Plan or Zoning.”

      Evidence: The Minor Design Review associated with the Anatolia Marketplace Dutch Bros. Coffee would be exempt from CEQA review under CEQA State Guidelines Section 15183. This section exempts from CEQA projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. The Anatolia Marketplace Dutch Bros. Coffee Minor Design Review involves construction and operation of a new Dutch Bros. Coffee located

within the Sunridge Specific Plan area. The commercial site was previously approved as part of the overall Anatolia Marketplace Retail Center project and was identified in the Sunridge Specific Plan Revised EIR (2011, SCH 1997022055). As this Minor Design Review is consistent with the Sunridge Specific Plan and the environmental documentation prepared for the Sunridge Specific Plan, it is exempt from CEQA review.

An assessment of traffic operations was prepared for the proposed Dutch Bros. Coffee to determine whether the Dutch Bros. Coffee is consistent with the assumptions for site development made when the Anatolia Marketplace was approved. The assessment concludes that the project plan has the capacity to accommodate anticipated queuing on site, and if a longer queue was to occur, the aisle through the parking lot has the adequate length to ensure that any vehicle queuing would not extend into a public right of way or interfere with overall shopping center access to Douglas Boulevard.

The project does not have any project-specific significant effects peculiar to the Minor Design Review and not identified in the previous environmental documentation, therefore, the project is exempt and no environmental document pursuant to CEQA is required.

2. Approve the **Conditional Use Permit Amendment** subject to the Conditions of Approval attached hereto as Exhibit B, and subject to the findings as defined by Zoning Code Section 23.134.070 and evidence as follows:

   A. **Finding:** The site size, dimensions, location, topography, and access are adequate for the needs of the proposed use, considering the proposed building mass, parking, traffic, noise, vibration, exhaust/ emissions, light, glare, erosion, odor, dust, visibility, safety, and aesthetic considerations.

   Evidence: The proposed project is for a 1,0002 SF coffee kiosk drive-thru service use. The proposed location is adequate for the needs of the proposed use and provides sufficient parking, outdoor seating area, and more than accommodates the required vehicle stacking distance. The use does not utilize traditional menu ordering boards and therefore reduces the amount of noise for a drive-through use. The project is also located away from neighboring residential uses and will not create any lighting concerns for adjacent properties.

   B. **Finding:** The negative impacts of the proposed use on adjacent properties and on the public can be mitigated through application of other code standards or other reasonable conditions of approval.

   Evidence: The Applicant thoroughly analyzed potential on-site and off-site traffic concerns regarding the proposed use and has provided more than adequate vehicle stacking distance to minimize queuing onto adjacent properties. The Applicant is meeting the required additional development standards required for drive thru services uses and has provided their traffic control strategy for the site which has been shown to be effective at other Dutch Bros locations. The Applicant has also provided additional analysis to show that there will be no off-site traffic effects to public rights of way and that any additional trips to the property by customers will not significantly impact the intersection of Douglas Road and the Anatolia Shopping Center access point.

C. **Finding:** All required public facilities have adequate capacity to serve the proposal.

Evidence: The overall shopping center was intended for retail and restaurant uses and the public facilities intended for the shopping center have been constructed to provide adequate capacity to serve the proposed use.

D. **Finding:** The project meets the requirements of the zoning code including design standards, design guidelines, and special use provisions.

Evidence: The project location is zoned General Commercial (GC) which allows for a drive-through service use with the approval of a Conditional Use Permit. The proposed drive-through is meeting all required development standards as well as special use development standards specifically for drive-through uses. These special standards include minimum lane widths for drive-through aisles, distance requirements for ingress and egress to drive-throughs, as well as additional landscape requirements and pedestrian access. The proposed use has met all applicable requirements.

E. **Finding:** If structures and site plans are considered nonconforming, the elements of a project that are nonconforming have been brought into compliance with the zoning code, where feasible.

Evidence: The proposed project would be a new development and has been reviewed with current codes and regulations. There are no nonconforming structures or aspects of the site plan that are included as part of this project.

3. To approve the Design Review, subject to the Minor Design Review Package (Exhibit A) and the Conditions of Approval (Exhibit B); supported by the following Findings and Evidence, as required by Zoning Code Section 23.140.070:

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 proposed site location is within the Commercial Mixed Use (CMU) general plan land use designation and is consistent with the objectives of that designation. The proposed Dutch Bros. Coffee building is also consistent with all applicable standards and requirements of the Sunridge Specific Plan and Rancho Cordova Municipal Code. The project adhered to the Rancho Cordova Design Guidelines as well as additional use specific requirements for drive-through service uses.

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 location is currently an undeveloped shopping center that is in early stages of construction. The proposed architecture, site design, and landscape are suitable for a drive-through use. The proposed drive-through lanes are screened as required by the Rancho Cordova Municipal Code and the applicant included an outdoor patio seating area to encourage a pedestrian friendly gathering space for customers and

nearby residents. The development of the site will enhance the character of the neighborhood.

C. **Finding**: The architecture, including the character, scale, and quality of 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 architecture has been reviewed to ensure that the project is consistent with the overall design concept of the previously approved shopping center. The design proposes Dutch Bros. Coffee's signature blue and gray color scheme and incorporates the main base color, stone veneer, and wood siding used on the other buildings throughout the shopping center. Once constructed, the proposed building will be consistent with adjacent properties and other buildings within the shopping center.

D. **Finding**: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The Applicant included a trip generation analysis as well as a traffic signal warrants analysis and safety assessment as part of their project submittal. These items were thoroughly reviewed by the Public Works Department, and it was determined the proposed use would not have a significant impact on off-site traffic circulation. The applicant has also proposed a vehicle stacking distance twice the minimum required distance and a specific traffic control strategy for their drive-through queueing to ensure that the drive-through does not interfere with on-site circulation. The Applicant has also included pedestrian walkways across the drive-through lanes to ensure pedestrian connections are still maintained to public rights of way. No conflicts with circulation will be created as part of the proposed project.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

BARGHAUSEN

PROJECT NARRATIVE

Conditional Use Permit and Minor Design Review
Dutch Bros Coffee

SEQ – Sunrise Boulevard and Douglas Road
Rancho Cordova, California 95742

Prepared by:
Barghausen Consulting Engineers, Inc.

December 8, 2021

Our Job No. 22015

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH KENT, WA 98032 P) 425.251.6222 F) 425.251.8782
BRANCH OFFICES: CHEHALIS, WA KLAMATH FALLS, OR LONG BEACH, CA RICHLAND, WA ROSEVILLE, CA
barghausen.com

Project Overview

The project proposes to develop a 35,414-square-foot parcel for construction of a new 1,002-square-foot Dutch Bros Coffee with dual drive-through lanes and associated site improvements, including a trash enclosure, parking, landscaping, and various site amenities.

This project is located on parcel S-1A of the Anatolia Marketplace development. The property is currently zoned as General Commercial (GC). The drive-through use requires a Conditional Use Permit and Minor Design Review application.

Site Amenities

A separate covered service window will be offered for walk-up customers on the eastern side of the building opposite the drive-through service window. It faces the main entrance and sidewalk to the overall development to attract the attention of nearby pedestrians. The canopy provides shade and weather protection when customers are ordering. A bench will be provided under the canopy for seating options. In addition, a shade tree and well-designed landscaping will be provided to create beautiful scenery.

An ADA path will connect to the main sidewalk and will include clearly marked crosswalks to cross the entrance and exit of the drive-through lanes. The ADA path also extends to the parking lot and adjacent parcels to provide the maximum pedestrian access from all surrounding areas.

Parking Evaluation

City Code requires one (1) parking spaces per two (2) employees. During peak periods, up to eight (8) employees may be on shift, requiring five (4) parking spaces. This project will include surface parking for 14 vehicles. The site will also include two (2) bicycle parking spaces.

Queuing and Stacking

Approximately 360 feet of stacking space is available behind the drive-through window to provide queuing for up to 18 vehicles. Dutch Bros Coffee will implement a runner system at the proposed facility that is designed to increase speed and efficiency in serving drive-through customers. Dutch Bros Coffee employees travel from vehicle to vehicle to greet customers and take orders. These "runners" utilize a handheld device to transmit customer's orders to the multiple drink stations inside the building. Additionally, runners will charge individuals while in line, so by the time they arrive at the service window, they may pick up their order and be on their way. This system decreases wait times, while allowing the runners to have a more personal face-to-face interaction with customers.

The drive-through will not include any speaker boxes. All customer orders are taken in person either at the window or with a runner that carries a handheld device to transmit orders to the kitchen. This ordering process minimizes noise impacts and decreases the amount of vehicle idling at menu boards that are common at traditional drive-through facilities.

Traffic Control Measures

The Dutch Bros Coffee site is proposing an extensive directional sign package that will direct customers throughout the site. In addition, the layout of the site was designed to create the best possible flow and the maximum queuing possible to reduce spillover onto neighboring properties or the public roads.

All staff are required to attend a monthly shop meeting to discuss traffic plans in detail. In addition, the staff will gather before each shift to ensure that the traffic strategy is set.

Approximately three (3) or four (4) staff will be dedicated to the parking area throughout the day to take orders and receive payments. In addition, one (1) person's sole responsibility will be traffic control. Tactics will include instructing all vehicles to pull forward as close as possible to utilize the maximum queuing available, directing cars into the waiting area or the escape lane, if needed, and ensuring no cars are blocking the road or areas they are not allowed to block.

These measures, in addition to implementing the runner system described above, will reduce customers' time at the window to 30 to 45 seconds. If customers are taking longer than that timeframe, the drink runners will bring drinks to the customers in line behind the window to allow those customers to exit via the bypass lane. This means customers are not required to reach the drive-through window to receive their order and exit the site. These measures significantly minimize the potential for queuing spillover outside the dedicated drive-through lanes.

Site Design and Orientation

The proposed Dutch Bros Coffee will include a separate customer window that is oriented to the eastern side of the site to serve pedestrian walk-up traffic only. The vehicle drive-through lane wraps around the east, north, and west property lines with the window and exit located on the west side of the property. A 30-inch wall will be provided along the northern and eastern property line to screen vehicle headlines from the right-of-way.

Architecture

The proposed building is visually interesting and will be constructed with a variety of high-quality building materials and painted with simple, bold colors. Vertical and horizontal façade breaks, building massing, and modulation have all been incorporated into the design of the building. Canopy awnings are provided over all entrances and service doors, including a large 300-square-foot canopy over the customer walk-up service window providing weather protection. The building features modulation with a tower element, building wall articulation, and building materials that are aesthetic and compatible with other newer developments in the community. Colorful and visually interesting wall signs depicting the Dutch Bros Coffee logos will be installed on all sides of the building.

Signs and Lighting

Signs proposed for use at the project site will conform to the City of Rancho Cordova Zoning Code. Signs proposed to be installed at the project site include wall signs, menu signs, drive-through, parking lot, and directional signs. Signs will be constructed with high-quality materials and properly installed under separate permits.

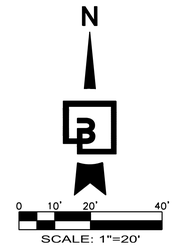
Site lighting will be provided at the project site for the safety and security of all customers, pedestrians, and employees. Outdoor lighting and illumination at the site will include parking lot security lighting and pedestrian scale lighting within the patio space and along the pedestrian pathway. Exterior building lighting will be installed on the building façade. The drive-through area will be provided with security lighting. All lights will include shields to direct light toward the project site and keep glare away from the adjacent land uses and rights-of-way.

Conclusion

The proposed Dutch Bros Coffee will enhance the commercial character of the General Commercial (GC) district. Dutch Bros Coffee is a successful business that will promote improvement of the existing commercial area. Dutch Bros Coffee locations are known to be clean and well maintained, providing quick service from friendly staff. The proposed coffee shop will provide excellent products and service, along with enhanced landscaping areas, lighting, and pedestrian open space at the project site that will benefit all customers and users in the immediate vicinity and the surrounding areas. The above narrative demonstrates how the proposal will increase the overall quality of the project site and positively impact the citizens and businesses of the surrounding community and the City of Rancho Cordova.

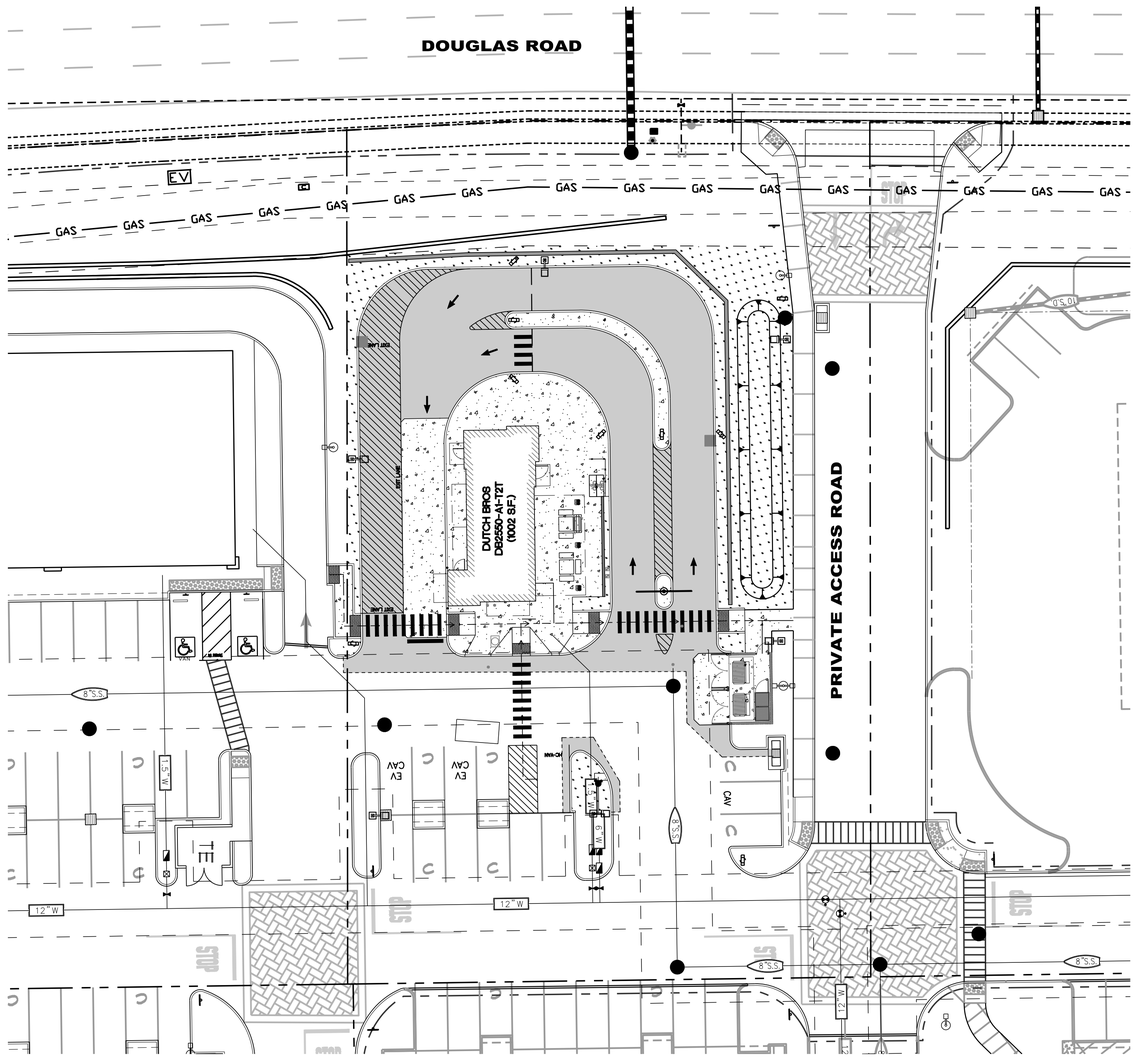
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DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004
COVER SHEET



CIVIL SHEET INDEX:

1 OF 5 COVER SHEET
2 OF 5 PRELIMINARY SITE PLAN
3 OF 5 PRELIMINARY GRADING AND DRAINAGE PLAN
4 OF 5 PRELIMINARY UTILITY PLAN
5 OF 5 PRELIMINARY CIVIL DETAILS





PROJECT DATA:

DUTCH BROS COFFEE - RANCHO CORDOVA, CA
LOCATION: SEQ DOUGLAS ROAD AND SUNRISE BLVD., RANCHO CORDOVA, CA
APN #: 06-723-700-020-000
CURRENT/PROPOSED GENERAL PLAN MAP DESIGNATION: COMMERCIAL MIXED-USE
SPECIFIC PLAN: TBD
ZONING: GC (GENERAL COMMERICAL)
PARCEL AREA: 35,414 SF (0.81 AC)
GROSS PROJECT AREA: 14,676 SF (0.34 AC)

BUILDING INFORMATION:
- BUILDING HEIGHT: 21'-4"
- BUILDING STORIES: 1
- BUILDING AREA: 1002 SF
- FIRE SPRINKLERS REQUIRED: NOT REQUIRED
- OCCUPANCY: B
- CONSTRUCTION TYPE: VB

SETBACKS:
- FRONT: 25' MINIMUM
- SIDE: 0' MINIMUM
- REAR: 0' MINIMUM

HEIGHT RESTRICTIONS:
- 100' TALL MAXIMUM

PARKING CALCULATIONS:

PARKING CALCULATION:	1 SPACE PER TWO EMPLOYEES
REQUIRED:	4 PARKING SPACES
PARKING SPACES PROVIDED:	7 STANDARD STALLS
	6 COMPACT STALLS
	1 ADA HC-VAN STALL
	1 EV-CHARGING STALL
	1 CLEAN-AIR STALL

OPEN SPACE REQUIRED: NO MINIMUM
OPEN SPACE PROVIDED: 3,235 SQ. FT. (0.074 AC)

LOT COVERAGE:

UNDISTURBED AREA:	±20,738 SF	(58.6%)
BUILDINGS (INCLUDING TRASH):	±1,242 SF	(3.51%)
PARKING AND MANEUVERING:	±7,555 SF	(21.3%)
WALKWAYS:	±2,645 SF	(7.47%)
LANDSCAPE:	±3,235 SF	(9.13%)
	35,414 SF	(100.0%)

FLOOD ZONE:

THE FLOOD ZONE DESIGNATION FOR THE SUBJECT PROPERTY IS ZONE "X", WHICH IS DESCRIBED TO BE AN AREA OF MINIMAL FLOOD HAZARD PER FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 06067C0240J, EFFECTIVE ON 07/19/2018.

LEGEND:

PROPOSED		EXISTING	
CURB AND GUTTER		CURB	
BARRIER CURB		PAINT STRIPE	
BRICK		CONCRETE	
LANDSCAPING		CONTOUR	91
CONCRETE		WATER	8"W
ASPHALT		SANITARY	6"S
SAWCUT		STORM	12"D
CONTOUR	-432-	OVERHEAD POWER	O/H
WATER	W	GAS	G
WATER METER		DOUBLE CHECK VALVE	
STORM		ASPHALT	
SANITARY		BUILDING LINE	
GAS	G	OH/UG TEL. LINE	T(XX)
POWER	P	TREE	
PAINT STRIPE			
TYPE 1 CATCH BASIN			
TYPE 2 CATCH BASIN			
SANITARY SEWER CLEANOUT			

LUMINAIRE (LUM.)		GAS METER	
YARD LIGHT		GAS VALVE	
UTILITY POLE		WATER VALVE (WV)	
JUNCTION BOX (AS NOTED)		FIRE HYDRANT(FH)	
CATCH BASIN		CONNECTION(FDC)	
STORM DRAIN MANHOLE/INLET		WATER METER	
		SIGN	
		DIRECTIONAL ARROW	
		BOLLARD	

OWNER
CBRE INC.
ATTN: JON SCHULTZ
500 CAPITAL MALL, SUITE 2400
SACRAMENTO, CA 95814
EMAIL: JON.SCHULTZ@CBRE.COM

DEVELOPER
DUTCH BROS COFFEE
110 SW 4TH STREET
GRANTS PASS, OR 97526
CONTACT: RUSS ORSI
TEL: (916) 765-7270
EMAIL: RUSS.ORSI@DUTCHBROS.COM

ENGINEER
BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVE. SOUTH
KENT, WA 98032
TEL: (425) 251-6222
CONTACT: HAL P. GRUBB, P.E.

SURVEYOR
RCE ENGINEEERING
2250 DOUGLAS BLVD, SUITE 150
ROSEVILLE, CA 95661
TEL: (916) 788-2884
CONTACT: JOHN E. KLAMM, P.L.S.

BUILDING ARCHITECT
GNICH ARCHITECTURE STUDIO
1001 SE SANDY BOULEVARD, SUITE 100
PORTLAND, OR 97214
TEL: (503) 552-9079
CONTACT: DUSTIN HENION

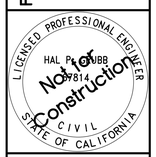
LANDSCAPE ARCHITECT
EVERGREEN DESIGN GROUP, INC.
15455 DALLAS PARKWAY, SUITE 600
ADDISON TX, 75001
TEL: (800) 680-6630
CONTACT: BLAKE RHINEHART

PRELIMINARY NOT FOR CONSTRUCTION

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Title: COVER SHEET
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For:



Scale:	Horizontal	Vertical
	1" = 20'	N/A

Designed	JAH	Drawn	TSL
Checked	JAH	Approved	HPG
Date	01/19/22		

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

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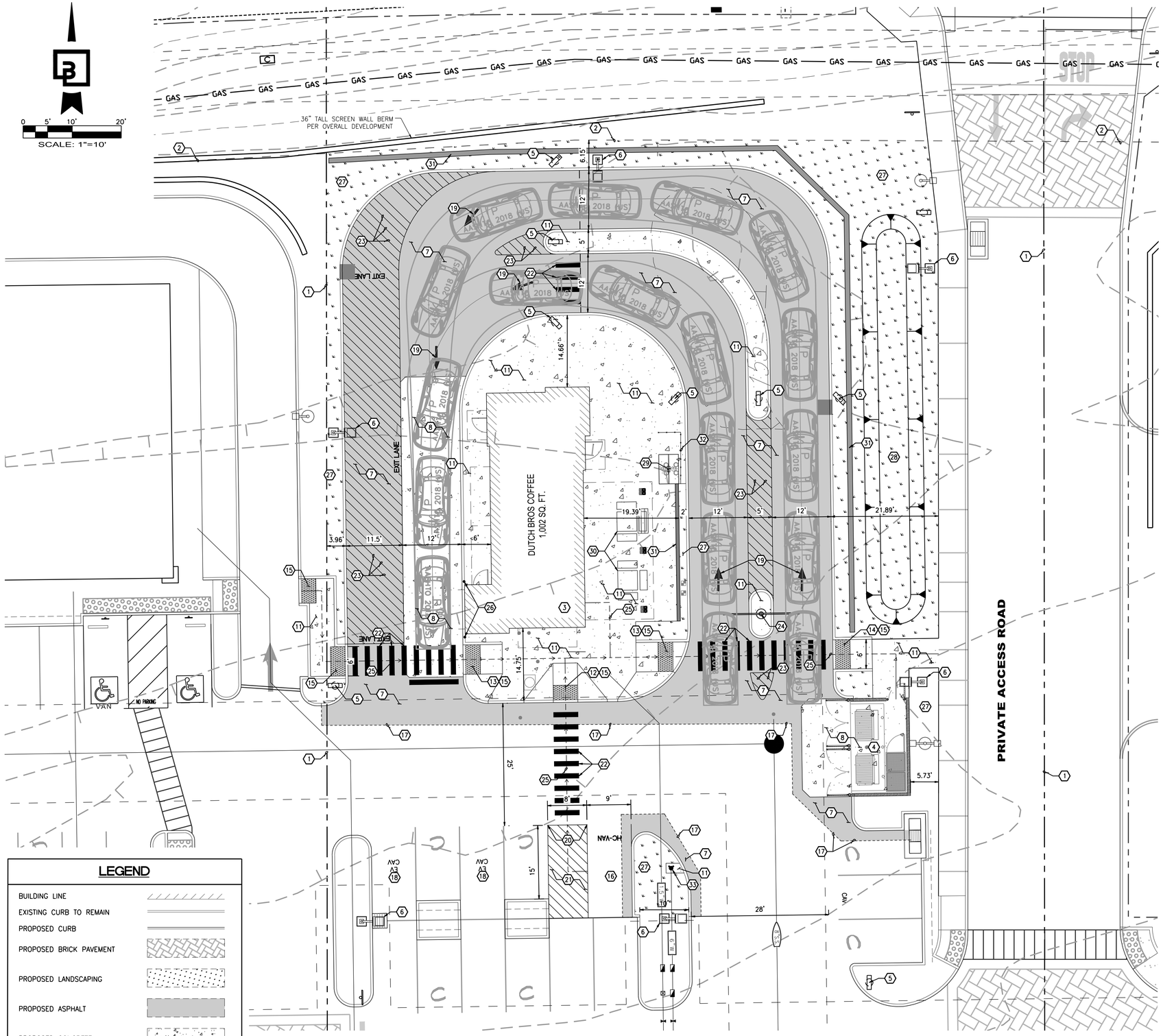
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Sheet 1 OF 5

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DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004
PRELIMINARY SITE PLAN





CONSTRUCTION NOTES:

1. EXISTING PROPERTY LINE, TYPICAL.
2. EXISTING RIGHT-OF-WAY LINE, TYPICAL.
3. PROPOSED LOCATION OF BUILDING(S).
4. PROPOSED SOLID WASTE ENCLOSURE.
5. PROPOSED SITE SIGN LOCATION.
6. PROPOSED SITE LIGHT.
7. PROPOSED ASPHALT PAVING.
8. PROPOSED CONCRETE PAVING.
9. PROPOSED CONCRETE BARRIER CURB (NOT SHOWN AT THIS TIME).
10. PROPOSED CONCRETE CURB AND GUTTER (NOT SHOWN AT THIS TIME).
11. PROPOSED CONCRETE SIDEWALK.
12. PROPOSED ACCESSIBLE CURB RAMP, PER CALTRANS STANDARD PLAN A88A SIMILAR TO CASE "A".
13. PROPOSED ACCESSIBLE CURB RAMP, PER CALTRANS STANDARD PLAN A88A SIMILAR TO CASE "E".
14. PROPOSED ACCESSIBLE CURB RAMP, PER CALTRANS STANDARD PLAN A88A SIMILAR TO CASE "F".
15. PROPOSED DETECTABLE WARNING ON FLUSH TRANSITION FROM HMA TO CONCRETE.
16. PROPOSED SINGLE ACCESSIBLE PARKING STALL WITH ALL REQUIRED SIGNAGE PER CALTRANS STANDARD PLAN A90A.
17. APPROXIMATE SAWCUT LIMITS, TYPICAL.
18. PROPOSED PARKING SPACE, TYPICAL.
19. PROPOSED DIRECTIONAL ARROWS WHERE SHOWN.
20. PROPOSED 4" WIDE WHITE REFLECTIVE PAINT PARKING STALL STRIPES, TYPICAL; ALL STRIPING TO CONFORM WITH CITY OF REQUIREMENTS.
21. PROPOSED STRIPING PER CALTRANS STANDARD PLAN A90A, TYPICAL; ALL STRIPING TO CONFORM WITH CITY REQUIREMENTS.
22. PROPOSED CONTINENTAL STYLE PEDESTRIAN CROSSWALK STRIPING; 1 FOOT WIDE STRIPES AT 2 1/2' FEET ON CENTER.
23. PROPOSED STRIPING 2 FEET ON CENTER FOR STRIPED OUT AREA AS SHOWN, TYPICAL. ALL STRIPING TO CONFORM WITH CITY STANDARDS.
24. PROPOSED VERTICAL CLEARANCE BAR.
25. PROPOSED ACCESSIBLE ROUTE. SEE ACCESSIBLE PATH NOTE THIS SHEET.
26. PROPOSED BOLLARD.
27. PROPOSED LANDSCAPING AREA.
28. PROPOSED DETENTION POND #1.
29. PROPOSED SHORT-TERM BICYCLE PARKING AREA.
30. PROPOSED SEATING TABLE WITH THREE BENCHES AND ONE OPEN SIDE FOR ADA-ACCESSIBILITY.
31. PROPOSED 30"-TALL SCREEN WALL.
32. PROPOSED DECORATIVE FENCING PER DETAIL 7/SHEET 5.
33. PROPOSED SITE FIRE HYDRANT.

ADJACENT USES:

- NORTH: REGIONAL TOWN CENTER - VACANT LAND (SAME OWNER AS PARCEL IN QUESTION)
- WEST: GENERAL COMMERICIAL - MIXED-USE RETAIL (SAME OWNER AS PARCEL IN QUESTION)
- SOUTH: RESIDENTIAL 7 - SINGLE FAMILY RESIDENTIAL (VARIOUS OWNERS)
- EAST: GENERAL COMMERCIAL - GAS STATION/CONVENIENCE STORE (SAME OWNER AS PARCEL IN QUESTION)

LEGEND

- BUILDING LINE
- EXISTING CURB TO REMAIN
- PROPOSED CURB
- PROPOSED BRICK PAVEMENT
- PROPOSED LANDSCAPING
- PROPOSED ASPHALT
- PROPOSED CONCRETE

ACCESSIBLE SITE REQUIREMENTS:

WALKING SURFACES SHALL BE CONTINUOUSLY ACCESSIBLE. ALL WALKWAYS MUST BE A MINIMUM 48" IN WIDTH, HAVE A MAXIMUM 1.5% CROSS SLOPE, AND SHALL HAVE RAMPS COMPLYING WITH ACCESSIBILITY STANDARDS (SECTION 11B-405) WHERE NECESSARY TO CHANGE ELEVATION AT A LONGITUDINAL SLOPE EXCEEDING 5% (1:20). CURB RAMPS WHERE PROVIDED SHALL COMPLY WITH ACCESSIBILITY REQUIREMENTS (SECTION 11B-406) AND BE PROVIDED WITH A CONTINUOUS 36" WIDE DETECTABLE WARNING STRIP MEETING ACCESSIBILITY REQUIREMENTS (SECTION 11B-705) SHALL BE PLACED WHERE A WALK CROSSES OR ADJOINS A VEHICULAR WAY AND IS NOT SEPARATED BY A CURB, RAILING, OR OTHER ELEMENT MEETING ACCESSIBILITY STANDARDS.

PRELIMINARY NOT FOR CONSTRUCTION

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Title: PRELIMINARY SITE PLAN
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For: DUTCH BROS Coffee

HAL PRATT CUBB
29814
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LICENSED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
CIVIL

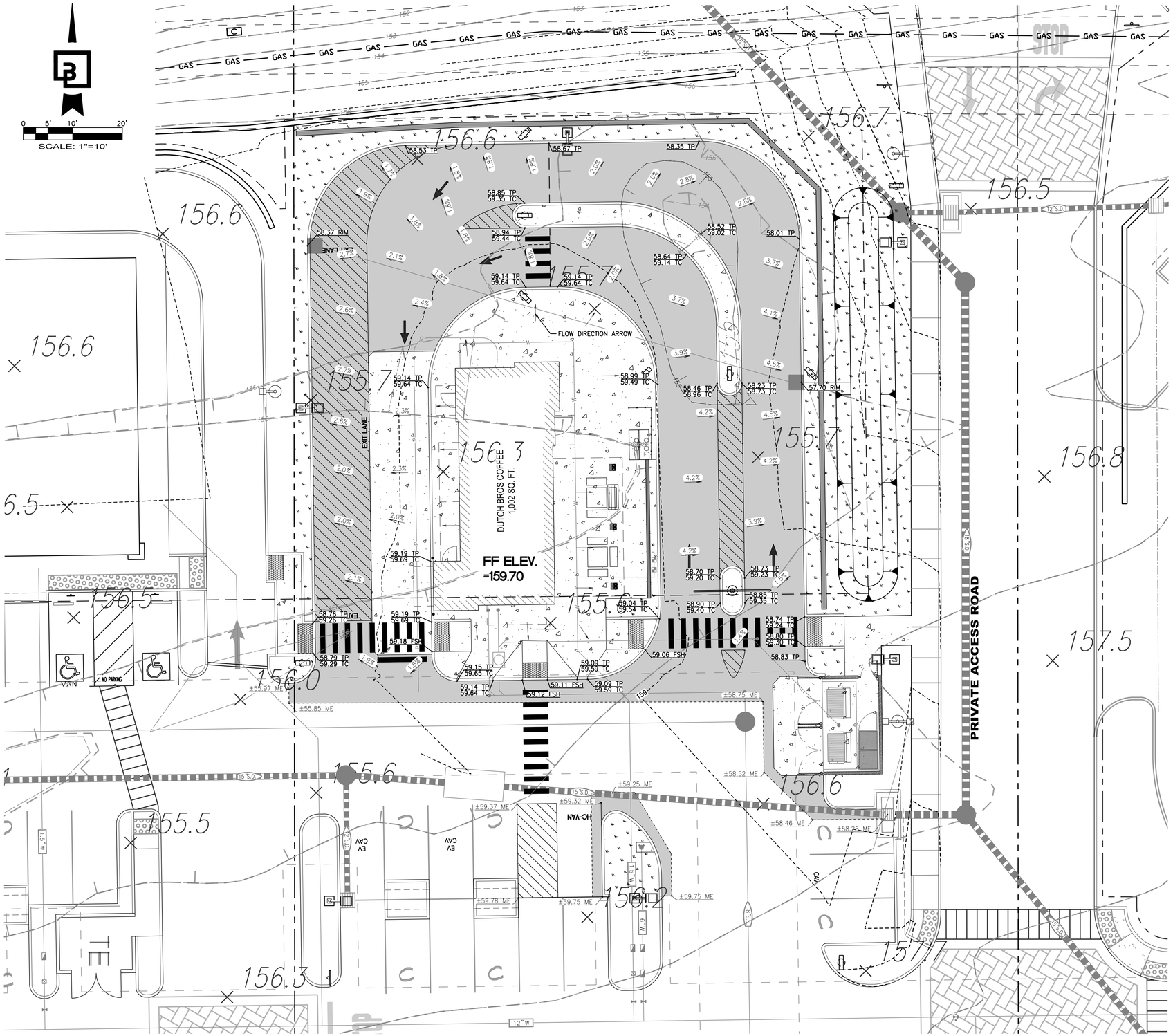
Scale: Horizontal 1" = 10' Vertical N/A
Designed JAH Drawn TSL Checked JAH Approved HPC Date 01/19/22

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 barghausen.com

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DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004
PRELIMINARY GRADING AND DRAINAGE PLAN



GRADING GENERAL NOTES:

1. ALL GRADING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THE CURRENT CITY ORDINANCE AND STANDARD PLANS. THE GRADING IS SUBJECT TO THE OBSERVATION AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PROPOSED GRADES IN RELATIONSHIP TO SURVEYED BASIS OF ELEVATION.
3. BUILDING FINISH FLOOR (FF) ELEVATION. THE FINISH FLOOR OF THE BUILDING(S) IS DESIGNED TO BE FLUSH WITH SURROUNDING CONCRETE PAVING UNLESS OTHERWISE NOTED ON THE PLANS.
4. ALL EXISTING UTILITY STRUCTURES AND ASSOCIATED LIDS THAT FALL WITHIN THE AREA OF WORK SHALL BE ADJUSTED TO FINISHED GRADE ELEVATIONS. CONTRACTOR SHALL CONFIRM THE FEASIBILITY OF ADJUSTING EXISTING UTILITY STRUCTURE LIDS TO FINISHED GRADE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
5. CONTRACTOR TO PROTECT AND MAINTAIN EROSION CONTROL FACILITIES DURING GRADING OPERATIONS.
6. CONTRACTOR TO OBTAIN ANY NECESSARY RIGHT-OF-WAY PERMITS IF REQUIRED FOR WORK SHOWN ON PLANS.
7. ALL MATCH EXISTING ELEVATIONS SHALL BE CONSTRUCTED TO BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES. ALL SAWCUT LOCATIONS, SHALL BE REPLACED TO MATCH EXISTING CONDITIONS.
7. ALL SPOT ELEVATIONS SHOWN ARE TO FINISH SURFACE (TOP OF ASPHALT OR TOP OF CONCRETE PAVEMENT, NOT TOP OF CURB/SIDEWALK) UNLESS OTHERWISE NOTED. (TP = TOP OF PAVEMENT, TC = TOP CURB, ME = MATCH EXISTING ELEVATIONS, FSH = FLUSH CURB, FL = FLOW LINE, GB = GRADE BREAK, GRD = FINISH GROUND, TPI = TOP OF ISLAND).
8. ALL SPOT ELEVATIONS SHOWN HAVE BEEN 'TRUNCATED' TO INCREASE VISUAL CLARITY. ALL ELEVATIONS SHOWN ARE PLUS 100', EG. 159.25 = 59.25.

STANDARD ELEVATION: 159.25
TRUNCATED ELEVATION: 59.25

FF - FINISHED FLOOR
FL - FLOWLINE
FSH- FLUSH
GRD- GROUND
MA - MATCH OFFSITE TIE IN ELEVATION
ME - MATCH EXISTING
TC - TOP OF CURB/SIDEWALK
TP - TOP OF PAVING
RIM - RIM/GRATE ELEVATION OF STRUCTURE

STORM WATER SUMMARY

THE PROPOSED REFUSE ENCLOSURE WILL CONFORM TO SOURCE CONTROL REQUIREMENTS. THE ENCLOSURE WILL BE COVERED AND HAVE AN INTERIOR DRAIN THAT FLOWS THROUGH A GREASE INTERCEPTOR BEFORE CONNECTING TO THE SANITARY SEWER SYSTEM.

THE PROPOSED STORMWATER SYSTEM WILL INCORPORATE SURFACE FLOW TO ONE OR MORE PROPOSED ONSITE CATCH BASIN. THE PROPOSED CATCH BASIN(S) WILL CONNECT TO THE PROPOSED DETENTION FACILITY. OVERFLOW CAPACITY WILL BE PROVIDED VIA PRIVATE OVERALL DEVELOPMENT STORMWATER INFRASTRUCTURE.

THE PROPOSED SITE IMPROVEMENTS WILL RESULT IN AN IMPERVIOUS AREA LESS THAN ONE (1) ACRE. AS A RESULT, THE SITE WILL NOT BE SUBJECT TO HYDROMODIFICATION REQUIREMENTS. TREATMENT REQUIREMENTS WILL BE COORDINATED WITH OVERALL DEVELOPER.

LEGEND

- BUILDING LINE
- EXISTING CURB TO REMAIN
- PROPOSED CURB
- PROPOSED BRICK PAVEMENT
- PROPOSED LANDSCAPING
- PROPOSED ASPHALT
- PROPOSED CONCRETE

PRELIMINARY NOT FOR CONSTRUCTION

Title: PRELIMINARY GRADING AND DRAINAGE PLAN
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For: DUTCH BROS

LICENSED PROFESSIONAL ENGINEER
HAL PRATT WEBB
No. 79814
CIVIL
STATE OF CALIFORNIA
Not for Construction

Scale:	Horizontal	1" = 10'
	Vertical	N/A
Designed JAH	Checked JAH	
Drawn TSL	Approved HPG	
	Date 01/19/22	

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

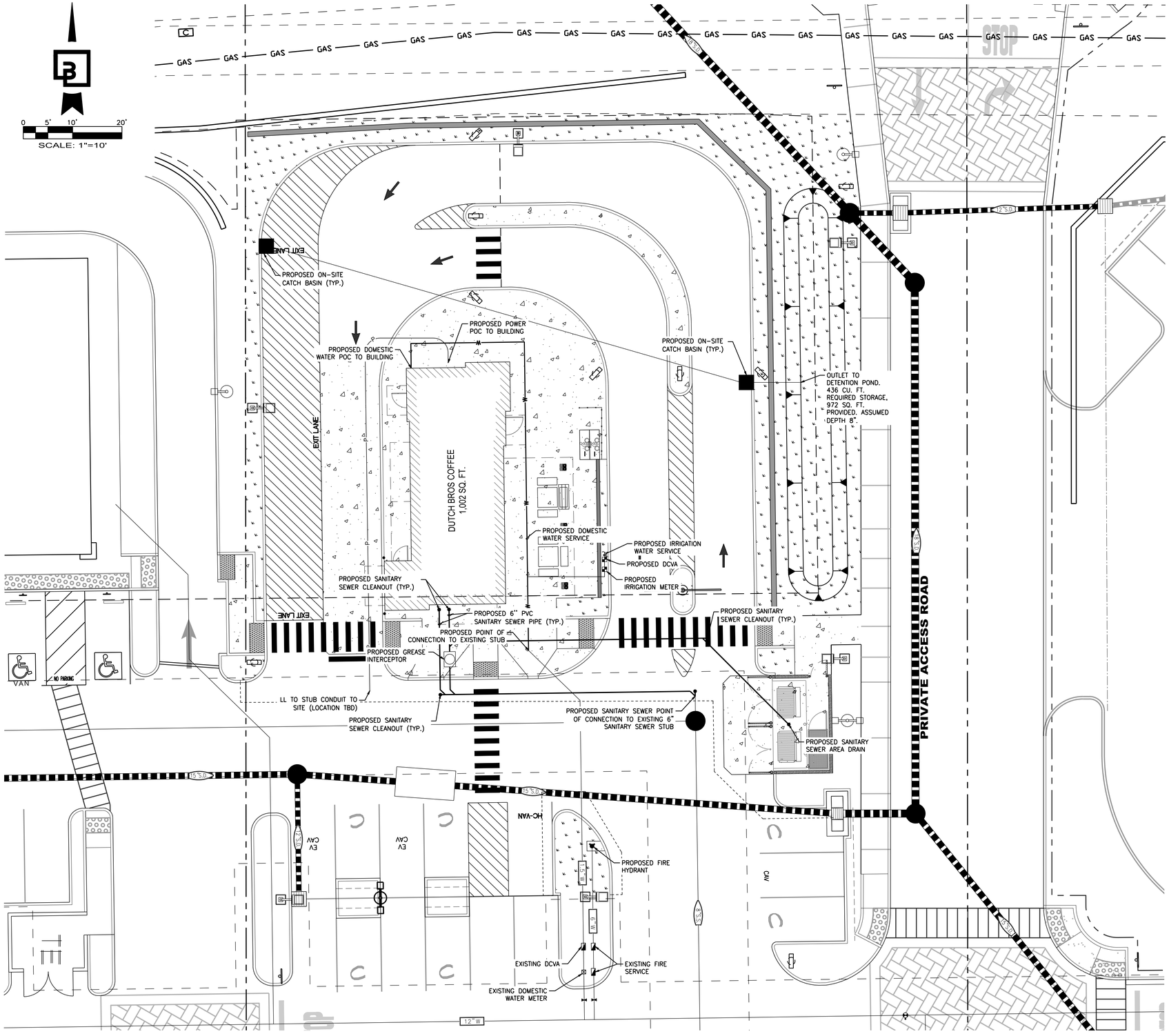
Job Number 22015
Sheet 3 OF 5

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DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004
PRELIMINARY UTILITY PLAN



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Title: PRELIMINARY UTILITY PLAN
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For:

LICENSED PROFESSIONAL ENGINEER
HAL P. STUBB
19814
Not for Construction
STATE OF CALIFORNIA
CIVIL

Scale: Horizontal 1" = 10'
Vertical N/A

Designed JAH
Drawn TSL
Checked JAH
Approved HPG
Date 01/19/22

Barghausen
Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 barghausen.com

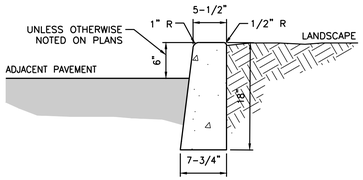
Job Number 22015
Sheet 4 OF 5

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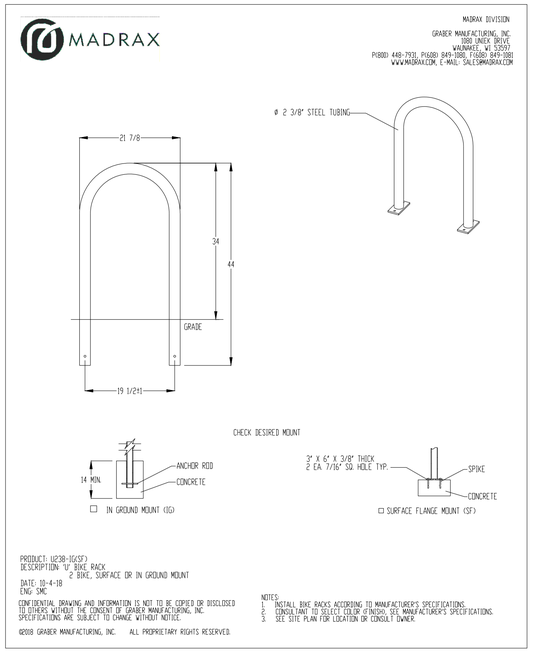
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811 Know what's **below.** **Call** before you dig. Dial 811

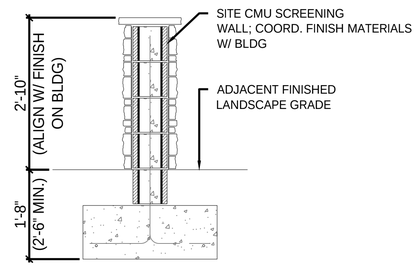
DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004
PRELIMINARY CIVIL DETAILS



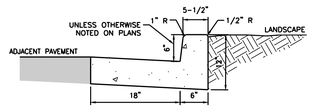
1 PD ON-SITE BARRIER CURB
NOT TO SCALE



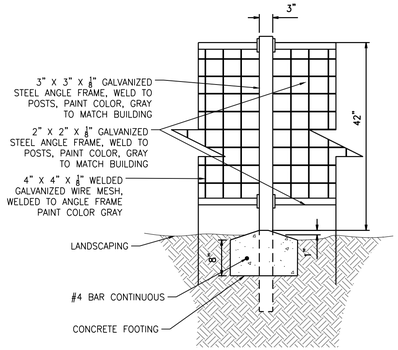
2 PD MADRAX BIKE RACK
NOT TO SCALE



3 PD CMU BLOCK SCREEN WALL
NOT TO SCALE



5 PD ON-SITE CURB AND GUTTER
NOT TO SCALE



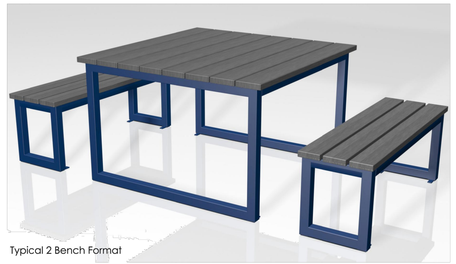
7 PD WIRE MESH FENCE
NOT TO SCALE

DUTCH BROS COFFEE

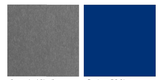
TABLE & BENCH PICNIC SET (Square)

OUTDOOR

Table Top / Seat Top: Recycled Plastic Lumber
Support Frame: Powder Coated Mild Steel
Bolt Down
Weather Resistant Materials for Outdoor Use
*ADA Compliant with Open Side



Typical 2 Bench Format

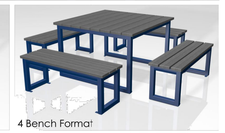


Recycled Plastic Lumber: Neutral Gray

Custom DB Blue Powder Coat to match exterior paint



Clear Side for ADA Compliance



4 Bench Format

Short Description	Part Number	Dimensions
Outdoor Table, bolt-down	FOT48-DB	48" x 48" x 30"H
Outdoor Bench, bolt-down	FOB48-DB	18" x 48" x 18" H

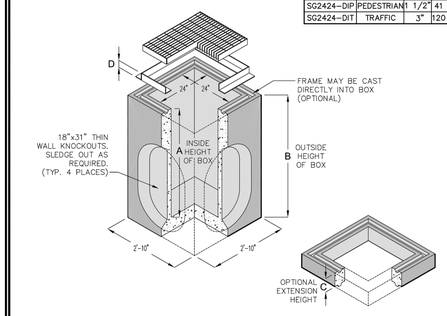
FCC Commercial Furniture | www.fcc-create.com

4 PD ON-SITE SEATING
NOT TO SCALE

DROP INLET			
MODEL NO.	A	B	*WEIGHT
DI242436	36"	42"	1900 LBS.
DI242448	48"	54"	2500 LBS.

*BOX ONLY

FRAME AND GRATE			
MODEL NO.	RATING	D	WEIGHT
SG2424-DIP	PEDESTRIAN	1 1/2"	41 LBS.
SG2424-DIT	TRAFFIC	3"	120 LBS.



EXTENSION		
MODEL NO.	C	WEIGHT
RS242406	6"	300 LBS.
RS242412	12"	600 LBS.

- FRAME AND GRATE ASSEMBLY AVALIABLE IN TRAFFIC OR PEDESTRIAN MODELS.
- DESIGN FOR H-20-44 BRIDGE LOADING.
- ASSEMBLY TO BE PLACED ON A 6" BASE OF CRUSHER RUN FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.
- ILLUSTRATION IS TYPICAL ONLY OF GENERAL SERIES CONFIGURATION: FOR SPECIFIC CONFIGURATION, CALL JENSEN PRECAST.

24" X 24" DRAIN INLET

JENSEN PRECAST

ORIG. DWG DATE: 11-28-00 | REV. DWG DATE:

DI2424

6 PD ON-SITE CATCH BASIN
NOT TO SCALE

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Title: PRELIMINARY CIVIL DETAILS
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For:

DUTCH BROS COFFEE

LICENSED PROFESSIONAL ENGINEER
HAL P. TOUBBEH
No. 27814
Not for Construction
CIVIL
STATE OF CALIFORNIA

Scale: Horizontal N/A Vertical N/A

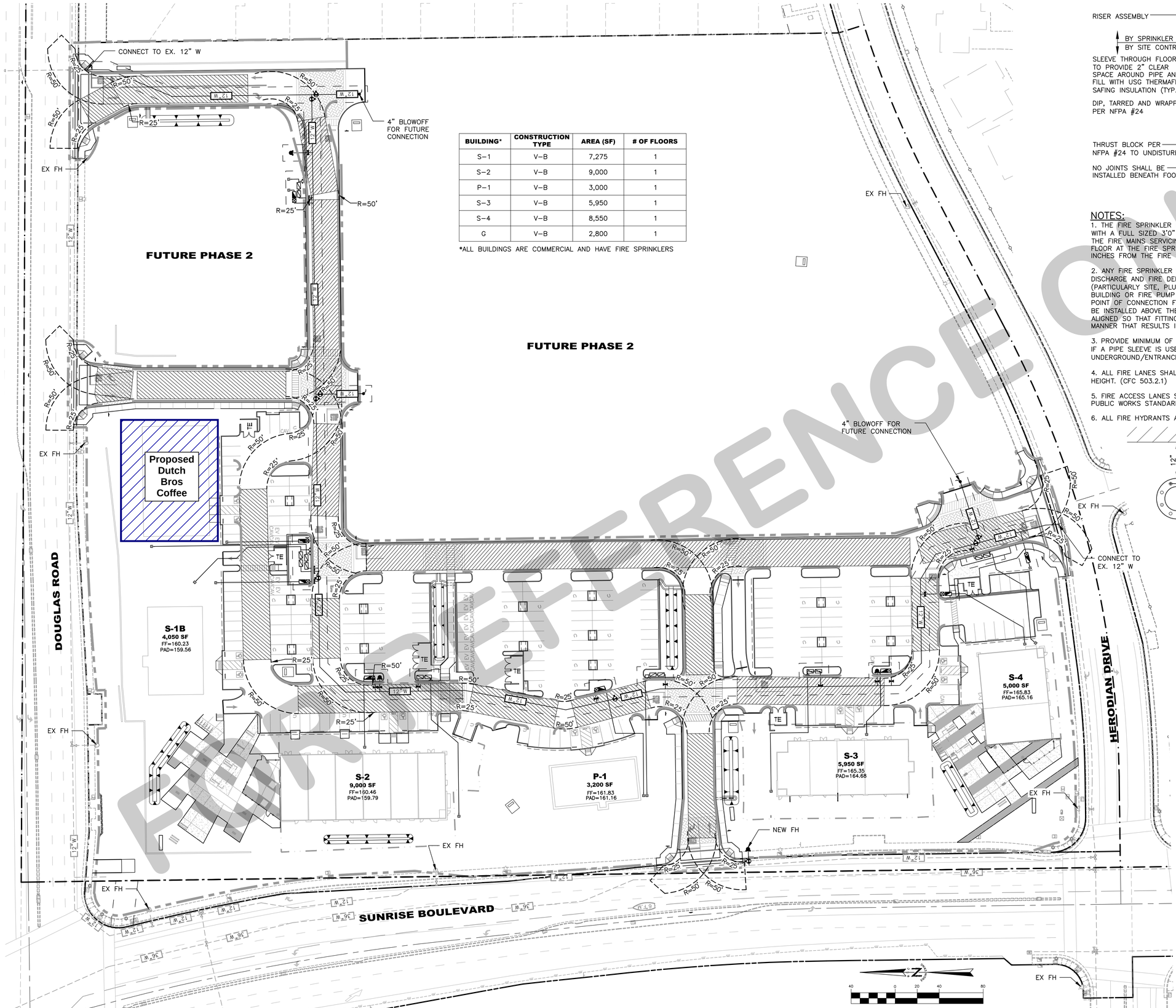
Designed JAH Drawn TSL Checked JAH Approved HPG Date 01/19/22

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425.251.6222
barghausen.com

Job Number 22015
Sheet 5 OF 5

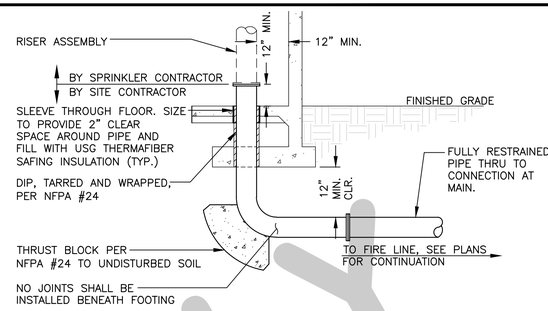
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BUILDING*	CONSTRUCTION TYPE	AREA (SF)	# OF FLOORS
S-1	V-B	7,275	1
S-2	V-B	9,000	1
P-1	V-B	3,000	1
S-3	V-B	5,950	1
S-4	V-B	8,550	1
G	V-B	2,800	1

*ALL BUILDINGS ARE COMMERCIAL AND HAVE FIRE SPRINKLERS



1 FIRE RISER DETAIL
NOT TO SCALE

NOTES:

1. THE FIRE SPRINKLER RISER LOCATIONS SHALL BE INSIDE FIRE CONTROL ROOMS (5'X7'MIN) WITH A FULL SIZED 3'0" DOOR. THE ROOMS SHALL ONLY BE ACCESSIBLE FROM THE EXTERIOR. THE FIRE MAINS SERVICING THESE RISERS SHALL TERMINATE 6 TO 24 INCHES ABOVE FINISHED FLOOR AT THE FIRE SPRINKLER RISER LOCATIONS. PROVIDE A MINIMUM CLEARANCE OF 12 INCHES FROM THE FIRE SPRINKLER RISERS TO ANY ADJACENT WALLS.

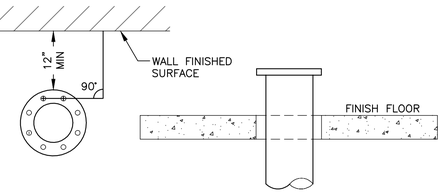
2. ANY FIRE SPRINKLER SYSTEM UNDERGROUND PIPING (SITE MAIN, FIRE PUMP SUPPLY / DISCHARGE AND FIRE DEPARTMENT CONNECTION PIPING) THAT IS INSTALLED BY ANY CONTRACTOR (PARTICULARLY SITE, PLUMBING OR FIRE SPRINKLER) THAT STUBS UP INSIDE OR OUTSIDE A BUILDING OR FIRE PUMP ROOM, ESPECIALLY THROUGH A CONCRETE SLAB SHALL HAVE THE FINAL POINT OF CONNECTION FLANGE INSTALLED WITH THE "2 – HOLE METHOD". THIS FLANGE SHALL BE INSTALLED ABOVE THE FINISH GRADE / FLOOR IN EACH CASE SO THE BOLT HOLES ARE ALIGNED SO THAT FITTINGS, VALVES AND EQUIPMENT MAY BE BOLTED TO THESE FLANGES IN A MANNER THAT RESULTS IN A SQUARE ALIGNMENT WITH THE ADJACENT WALLS AND FLOOR.

3. PROVIDE MINIMUM OF 2" CLEARANCE ON ALL SIDES AROUND UNDERGROUND ENTRANCE PIPE. IF A PIPE SLEEVE IS USED IT SHALL BE A MINIMUM 2" NOMINAL PIPE DIAMETERS LARGER THAN UNDERGROUND/ENTRANCE MAIN.

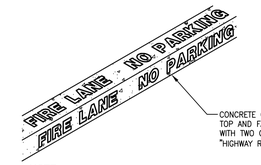
4. ALL FIRE LANES SHALL BE A MINIMUM OF 20 FEET CLEAR WIDTH AND 13 1/2 FEET CLEAR HEIGHT. (CFC 503.2.1)

5. FIRE ACCESS LANES SHALL BE BUILT TO BEAR A MINIMUM OF 80,000 POUNDS AND MEET PUBLIC WORKS STANDARD FOR ROADWAYS.

6. ALL FIRE HYDRANTS ARE PUBLIC.



2 FIRE RISER STUB UP
NOT TO SCALE



NOTE:
ALL FIRE LANES SHALL BE CLEARLY MARKED WITH RED CURBING AND EITHER APPROVED SIGNAGE OR 4" WHITE STENCILING ALONG THE FACE AND TOP OF CURB. SIGNAGE AND/OR OTHER MARKING SHALL BE LOCATED EVERY 25' ALONG THE CURB.
WHERE NO CURB IS PRESENT A 6" WIDE RED LINE SHALL BE MARKED ON THE PAVEMENT WITH THE APPROVED SIGNAGE OR 4" WHITE STENCILING AS INDICATED ABOVE

1 FIRE LANE CURB DETAIL
NOT TO SCALE

LEGEND

- DENOTES FIRE TRUCK TURNING RADII (25' INSIDE, 50' OUTSIDE)
- DENOTES FIRE LANE STRIPING SEE DETAIL THIS SHEET
- DENOTES FIRE ACCESS ROUTE
- 150' — HOSE REACH PATH AND LENGTH

Approved by:

Date

Sacramento Metropolitan Fire District
(Expires in one year)

ANATOLIA, LLC
7700 COLLEGE TOWN DR., #101
SACRAMENTO, CA 95826

REV NO.	DATE	DESCRIPTION	ENG INT.	BY	CITY APPROVED	DATE

REGISTERED PROFESSIONAL ENGINEER
JAMES R. VANDERPOST
No. 69382
June 30, 2022
CIVIL
STATE OF CALIFORNIA

RSC ENGINEERING
1420 Rocky Ridge Drive, Suite 150
Roseville, CA 95661
Ph: 916.788.2884 Fax: 916.788.4408

PROJECT NO:	255-001
DRAWN BY:	RSC Eng
CHECKED BY:	RSC Eng
DESIGNED BY:	RSC Eng

ANATOLIA RETAIL CENTER PHASE 1
4001-4045 SUNRISE BOULEVARD
SOUTHEAST CORNER
DOUGLAS RD AND SUNRISE BLVD
RANCHO CORDOVA, CA

SHEET TITLE
FIRE SHEET

SHEET NO.
C11.0
25 OF **32**

DATE: AUGUST 6, 2020

PRELIMINARY NOT FOR CONSTRUCTION

Xrefs: \255001_XBASE.dwg \255001_XBASE-PH1.dwg \255001_XBASE-PH2.dwg \255001_XUTIL.dwg
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USER: DWATSON Feb 11, 20 - 09:25
PLOT DATE: Aug 07, 2020 - 2:47:39 PM

DUTCH BROS Coffee



LOOKING NORTH-EAST



LOOKING SOUTH-EAST

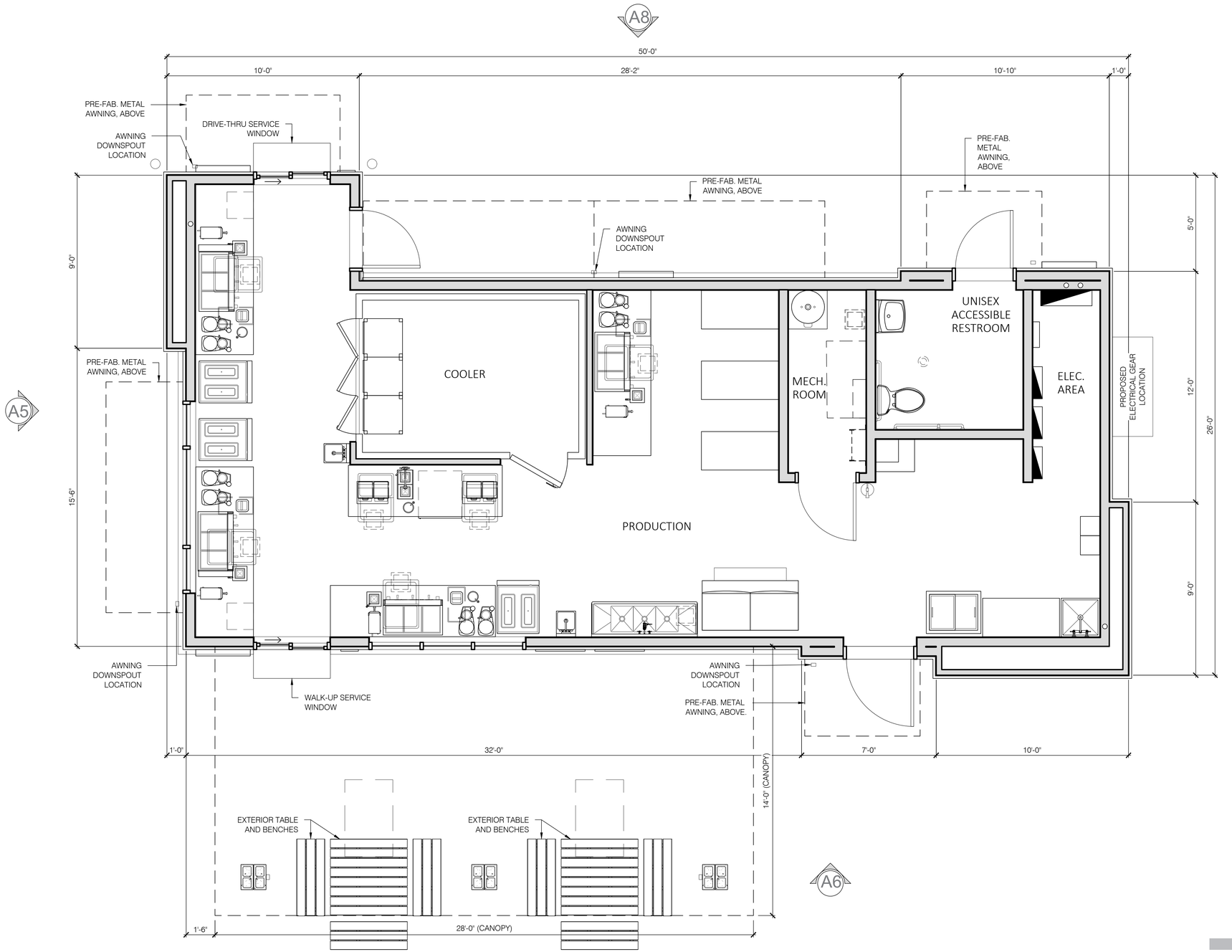


LOOKING SOUTH-WEST



LOOKING NORTH-WEST

DUTCH BROS Coffee



SQUARE FOOTAGE :
GROSS = 1,002 SQ. FT.

SCALE: 3/8" = 1'-0"

0' 5' 10' 20'

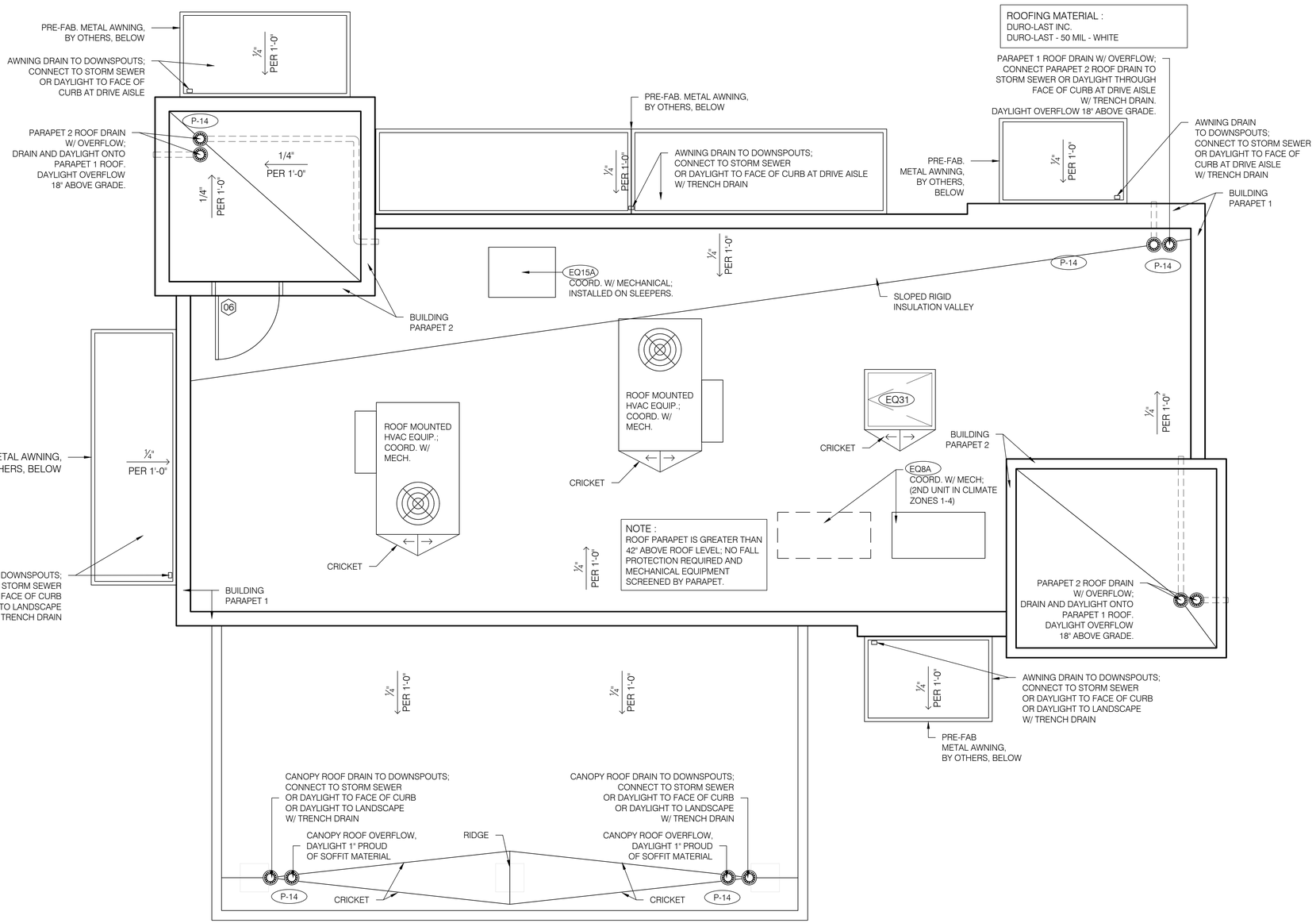
GNICH ARCHITECTURE STUDIO
AN OREGON LIMITED LIABILITY COMPANY

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1001 SE SANDY BLVD, SUITE 100 | PORTLAND, OR 97214 | www.GnichArch.com | v. 503.552.9079 | f. 503.241.7055 | JANUARY 19, 2022

FLOOR PLAN

PAGE A3



SCALE: 3/8" = 1'-0"

0' 5' 10' 20'

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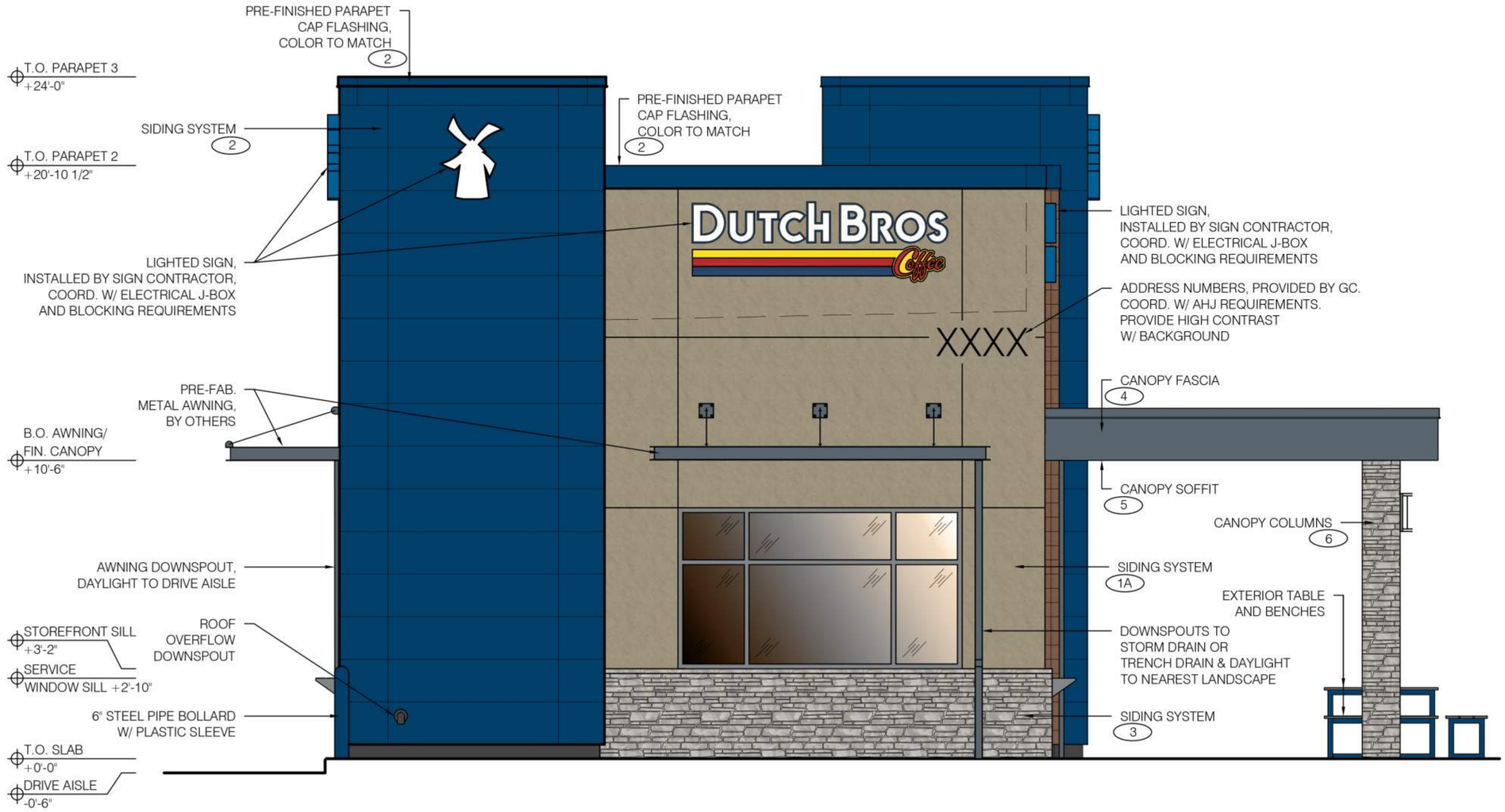
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ROOF PLAN

PAGE A4

DUTCH BROS Coffee

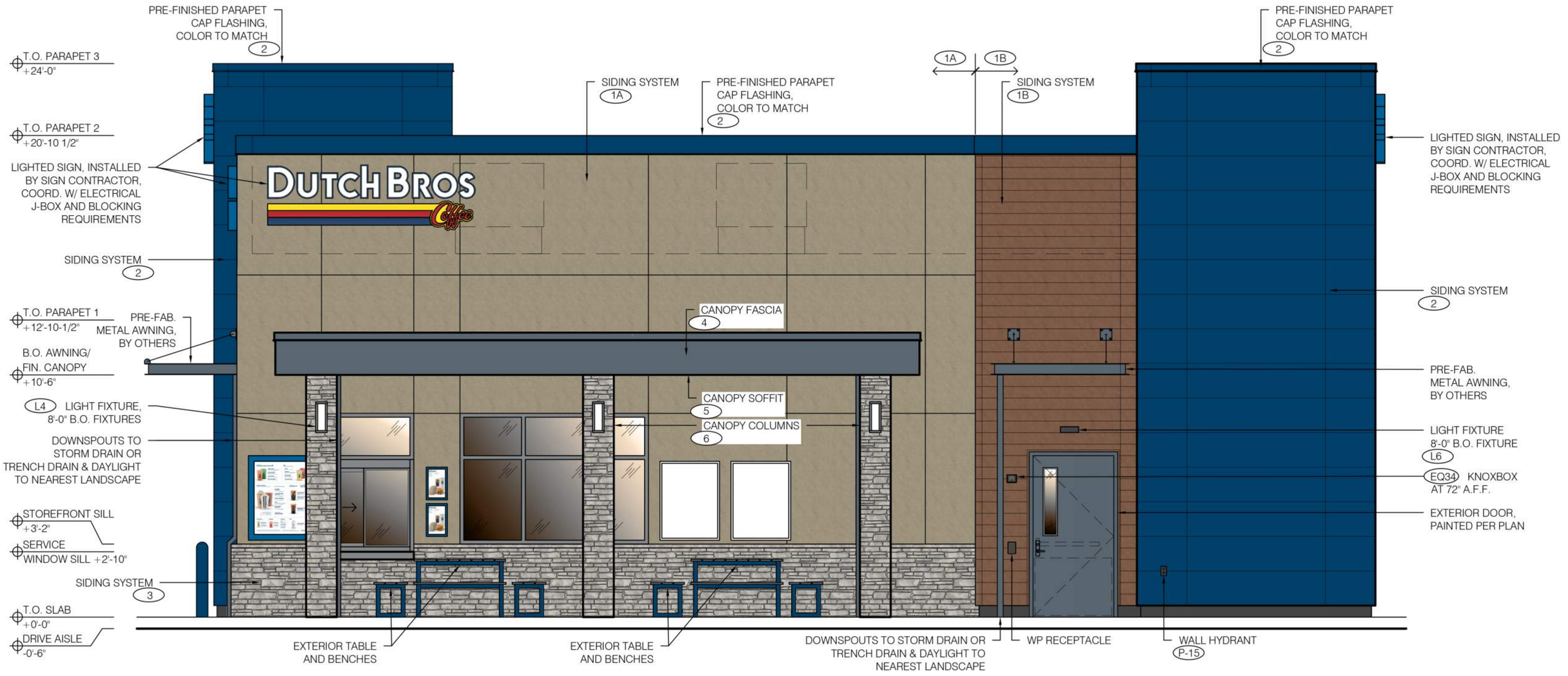
SIDING SCHEDULE - ALTERNATE w/ CANOPY				
ID TAG	MATERIAL	MANUFACTURER	MODEL	REMARKS
ZONE 1 (BODY)				
1A	PAINT-CEMENT PLASTER	DUNN EDWARDS PAINTS	3-COAT SYSTEM W/ ACRYLIK MEDIUM SAND FINISH; REVEALS AS SHOWN	DET640 TAWNY OWL; PER DEVELOPMENT
1B	FIBER CEMENT SIDING	NICHIHA	VINTAGEWOOD, AWP 1818 w/ MATCHING PANEL CORNERS	COLOR: REDWOOD
ZONE 2 (TOWER)				
2	FIBER CEMENT SIDING	NICHIHA	ILLUMINATION, AWP 1818 w/ METAL OUTSIDE OPEN CORNERS	COLOR: BLDG DB BLUE
ZONE 3 (BASE)				
3	STONE VENEER	ELDORADO STONE	LEDGECUT 33	COLOR: BIRCH
	STONE SILL	ELDORADO STONE	SNAPPED EDGE WAINSCOT SILL	COLOR:
ZONE 4 (FRAMED CANOPY)				
4	FASCIA	WESTERN STATES METAL ROOFING	T-GROOVE, 10"	3 SIDES; COLOR: BLDG DB DARK GRAY
5	SOFFIT	HEWN ELEMENTS	NATURAL NORTHWESTERN SPRUCE	1x8, T&G, 1/8" REVEAL
6	COLUMS	ELDORADO STONE	LEDGECUT 33	COLOR: BIRCH
NOTE: PROVIDE 3"x2" SMOOTH DOWNSPOUTS, AND ALL NECESSARY ADAPTORS, AT AWNING AND CANOPY LOCATIONS; COLOR: BLDG DB DARK GRAY				



SCALE: 1/2" = 1'-0"

0' 5' 10' 20'

SIDING SCHEDULE - ALTERNATE w/ CANOPY				
ID TAG	MATERIAL	MANUFACTURER	MODEL	REMARKS
ZONE 1 (BODY)				
1A	PAINT-CEMENT PLASTER	DUNN EDWARDS PAINTS	3-COAT SYSTEM W/ ACRYLIK MEDIUM SAND FINISH; REVEALS AS SHOWN	DET640 TAWNY OWL; PER DEVELOPMENT
1B	FIBER CEMENT SIDING	NICHIHA	VINTAGEWOOD, AWP 1818 w/ MATCHING PANEL CORNERS	COLOR: REDWOOD
ZONE 2 (TOWER)				
2	FIBER CEMENT SIDING	NICHIHA	ILLUMINATION, AWP 1818 w/ METAL OUTSIDE OPEN CORNERS	COLOR: BLDG DB BLUE
ZONE 3 (BASE)				
3	STONE VENEER	ELDORADO STONE	LEDGECUT 33	COLOR: BIRCH
	STONE SILL	ELDORADO STONE	SNAPPED EDGE WAINSCOT SILL	COLOR:
ZONE 4 (FRAMED CANOPY)				
4	FASCIA	WESTERN STATES METAL ROOFING	T-GROOVE, 10"	3 SIDES; COLOR: BLDG DB DARK GRAY
5	SOFFIT	HEWN ELEMENTS	NATURAL NORTHWESTERN SPRUCE	1x8, T&G, 1/8" REVEAL
6	COLUMS	ELDORADO STONE	LEDGECUT 33	COLOR: BIRCH
NOTE: PROVIDE 3"x2" SMOOTH DOWNSPOUTS, AND ALL NECESSARY ADAPTORS, AT AWNING AND CANOPY LOCATIONS; COLOR: BLDG DB DARK GRAY				



SCALE: 1/2" = 1'-0"

0' 5' 10' 20'

GNICH ARCHITECTURE STUDIO
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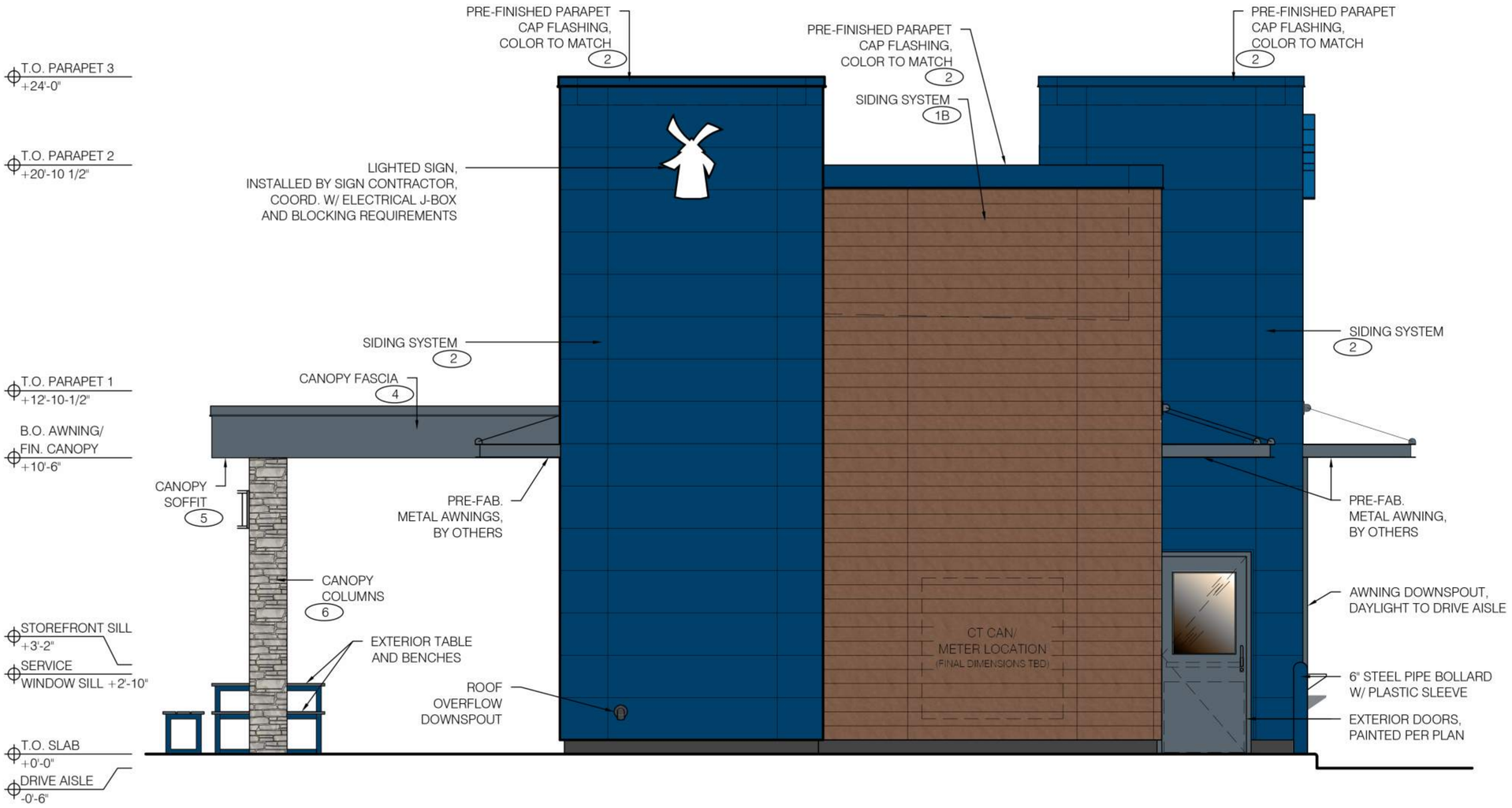
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EAST ELEVATION - WALK-UP WINDOW

PAGE A6

DUTCH BROS Coffee

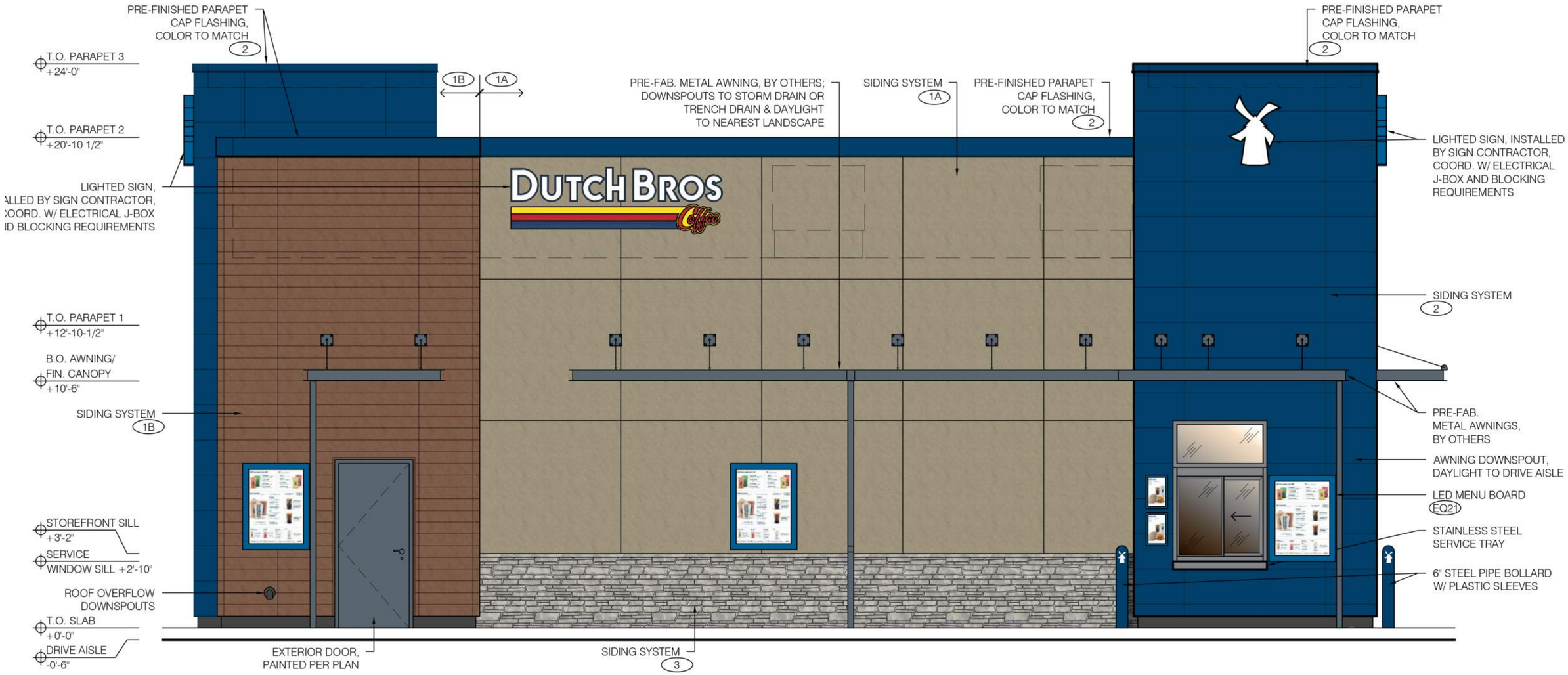
SIDING SCHEDULE - ALTERNATE w/ CANOPY				
ID TAG	MATERIAL	MANUFACTURER	MODEL	REMARKS
ZONE 1 (BODY)				
1A	PAINT-CEMENT PLASTER	DUNN EDWARDS PAINTS	3-COAT SYSTEM W/ ACRYLIK MEDIUM SAND FINISH; REVEALS AS SHOWN	DET640 TAWNY OWL; PER DEVELOPMENT
1B	FIBER CEMENT SIDING	NICHIHA	VINTAGEWOOD, AWP 1818 w/ MATCHING PANEL CORNERS	COLOR: REDWOOD
ZONE 2 (TOWER)				
2	FIBER CEMENT SIDING	NICHIHA	ILLUMINATION, AWP 1818 w/ METAL OUTSIDE OPEN CORNERS	COLOR: BLDG DB BLUE
ZONE 3 (BASE)				
3	STONE VENEER	ELDORADO STONE	LEDGECUT 33	COLOR: BIRCH
	STONE SILL	ELDORADO STONE	SNAPPED EDGE WAINSCOT SILL	COLOR:
ZONE 4 (FRAMED CANOPY)				
4	FASCIA	WESTERN STATES METAL ROOFING	T-GROOVE, 10"	3 SIDES; COLOR: BLDG DB DARK GRAY
5	SOFFIT	HEWN ELEMENTS	NATURAL NORTHWESTERN SPRUCE	1x8, T&G, 1/8" REVEAL
6	COLUMS	ELDORADO STONE	LEDGECUT 33	COLOR: BIRCH
NOTE: PROVIDE 3"x2" SMOOTH DOWNSPOUTS, AND ALL NECESSARY ADAPTORS, AT AWNING AND CANOPY LOCATIONS; COLOR: BLDG DB DARK GRAY				



SCALE: 1/2" = 1'-0"

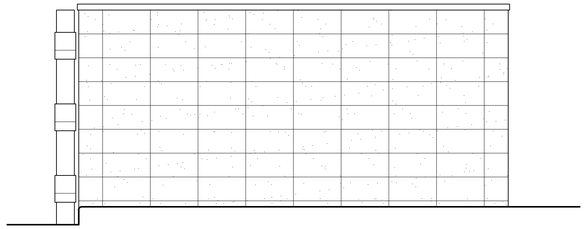
0' 5' 10' 20'

SIDING SCHEDULE - ALTERNATE w/ CANOPY				
ID TAG	MATERIAL	MANUFACTURER	MODEL	REMARKS
ZONE 1 (BODY)				
1A	PAINT-CEMENT PLASTER	DUNN EDWARDS PAINTS	3-COAT SYSTEM W/ ACRYLIK MEDIUM SAND FINISH; REVEALS AS SHOWN	DET640 TAWNY OWL; PER DEVELOPMENT
1B	FIBER CEMENT SIDING	NICHIHA	VINTAGEWOOD, AWP 1818 w/ MATCHING PANEL CORNERS	COLOR: REDWOOD
ZONE 2 (TOWER)				
2	FIBER CEMENT SIDING	NICHIHA	ILLUMINATION, AWP 1818 w/ METAL OUTSIDE OPEN CORNERS	COLOR: BLDG DB BLUE
ZONE 3 (BASE)				
3	STONE VENEER	ELDORADO STONE	LEDGECUT 33	COLOR: BIRCH
	STONE SILL	ELDORADO STONE	SNAPPED EDGE WAINSCOT SILL	COLOR:
ZONE 4 (FRAMED CANOPY)				
4	FASCIA	WESTERN STATES METAL ROOFING	T-GROOVE, 10"	3 SIDES; COLOR: BLDG DB DARK GRAY
5	SOFFIT	HEWN ELEMENTS	NATURAL NORTHWESTERN SPRUCE	1x8, T&G, 1/8" REVEAL
6	COLUMS	ELDORADO STONE	LEDGECUT 33	COLOR: BIRCH
NOTE: PROVIDE 3"x2" SMOOTH DOWNSPOUTS, AND ALL NECESSARY ADAPTORS, AT AWNING AND CANOPY LOCATIONS; COLOR: BLDG DB DARK GRAY				



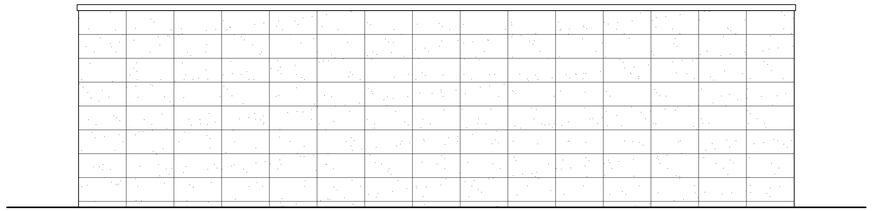
SCALE: 1/2" = 1'-0"

0' 5' 10' 20'



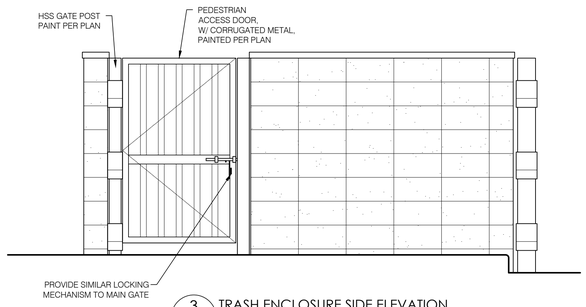
5 TRASH ENCLOSURE SIDE ELEVATION

SCALE: 1/2" = 1'-0"



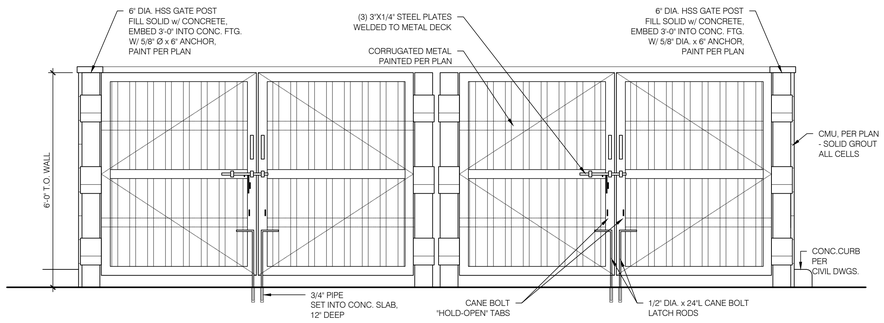
4 TRASH ENCLOSURE SIDE ELEVATION

SCALE: 1/2" = 1'-0"



3 TRASH ENCLOSURE SIDE ELEVATION

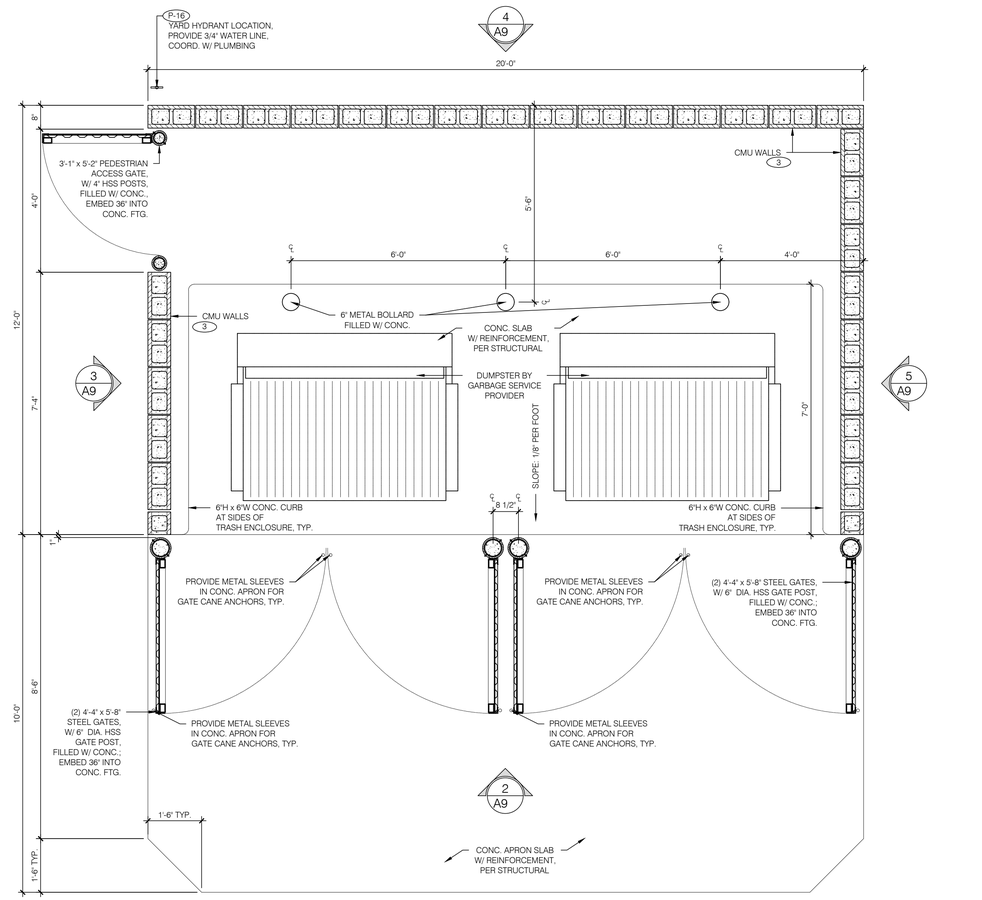
SCALE: 1/2" = 1'-0"



2 TRASH ENCLOSURE FRONT ELEVATION

SCALE: 1/2" = 1'-0"

TRASH ENCLOSURE MATERIALS				
ID	MATERIAL	MANUFACTURER	COLOR	NOTES
3	CMU BLOCK	WILLAMETTE-GRAYSTONE	CHARCOAL	SPLIT FACE, 8x16x8; 8x8x8 AS NECESARY
	CMU CAP	WILLAMETTE-GRAYSTONE	CHARCOAL	12x16x2
PT-2	PAINT	SHERWIN-WILLIAMS	-	BLDG DB DARK GRAY, GATES BODY
PT-3	PAINT	SHERWIN-WILLIAMS	-	BLDG DB BLUE, GATE FRAMES & POSTS



1 TRASH ENCLOSURE PLAN

SCALE: 1/2" = 1'-0"

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AN OREGON LIMITED LIABILITY COMPANY



FIBER CEMENT SIDING
MANUFACTURER: NICHIHA
PROFILE: ILLUMINATION
COLOR: BLDG DB BLUE



FIBER CEMENT SIDING
MANUFACTURER: NICHIHA
PROFILE: VINTAGEWOOD
COLOR: REDWOOD



STUCCO
MANUFACTURER: -
PROFILE: 3-COAT, ACRYLIC FINE SAND FINISH
COLOR: DET640 TAWNY OWL



CULTURED STONE
MANUFACTURER: ELDORADO STONE
PROFILE: LEDGECUT33
COLOR: PER MFR.



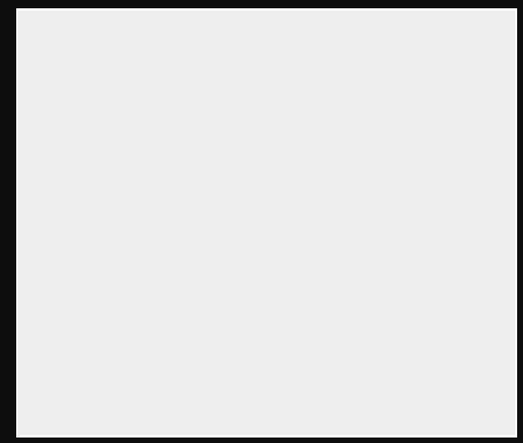
CANOPY SOFFIT
MANUFACTURER: HEWN
PROFILE: NW SPRUCE NATURAL & SEALED
COLOR: PER MFR.



WINDOW SYSTEM
MANUFACTURER: KAWNEER OR SIMILAR
PROFILE: CLEAR ANODIZED ALUMINUM
FINISH: CLEAR NO 14 / 17

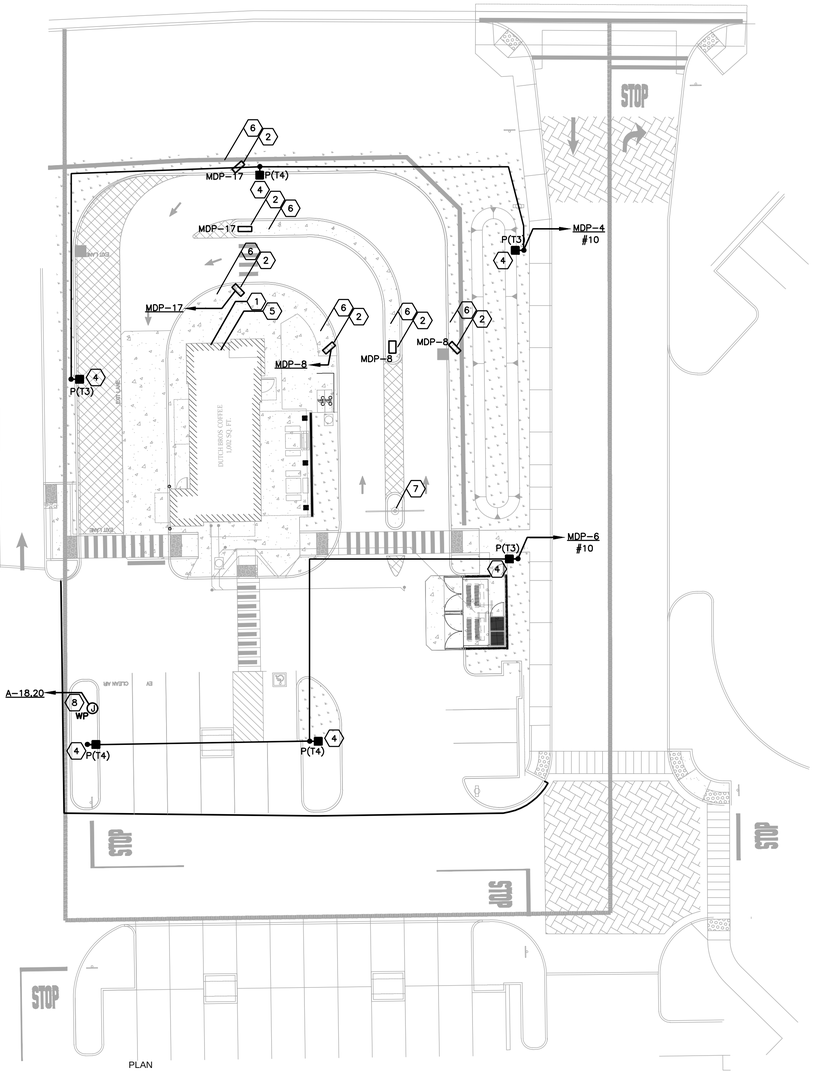


AWNINGS & DOORS - PAINT
MANUFACTURER: SCHERWIN-WILLIAMS
COLOR: BLDG DB GRAY DARK



ROOFING MATERIAL
MANUFACTURER: DURO-LAST
DL-60 - 60 MIL
COLOR: WHITE

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PLAN NORTH

1 ELECTRICAL SITE PLAN

1/32" = 1'-0"

0 8' 32' 64'

KEYED NOTES

1. LOCATION OF UTILITY METER DISCONNET SWITCH AND CT CABINET. REFER TO "RISER DIAGRAM" ON SHEET E3.01.
2. PROVIDE 120V ELECTRICAL CONNECTION WITH (2)#8 & (1)#8G. IN 2" PVC ROUTED BELOW GRADE FOR DRIVE-THRU BACKLIT MENU BOARD PER MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL COME UP IN CENTER OF POST. SIGN COMPANY REPRESENTATIVE TO GIVE EXACT LOCATIONS/DIMENSIONS FOR GC TO MATCH. CONTRACTOR SHALL REPAIR EXISTING PARKING SURFACES FROM TRENCHING TO MATCH PREVIOUS CONDITIONS.
3. PROVIDE 120V ELECTRICAL CONNECTION WITH (2)#8 & (1)#8G. IN 2" PVC ROUTED BELOW GRADE FOR NEW MONUMENT SIGN PER REPRESENTATIVE PRIOR TO ROUGH-IN. CONTRACTOR SHALL REPAIR EXISTING PARKING SURFACES FROM TRENCHING TO MATCH PREVIOUS CONDITIONS.
4. PARKING LOT FIXTURES TO DIM TO 40% WHILE NOT OCCUPIED AND SET TO FULL BRIGHTNESS WHILE IN USE.
5. LOCATION OF CABLE INTERNET DEMARC
6. PROVIDE 2" CONDUIT W/ PULL STRING 24" BEHIND MENU BOARD TO CHRISTY BOX FOR FUTURE DIGITAL MENU BOARD UPGRADE . COORDINATE W/ SIGN MANUFACTURER.
7. PROVIDE 2" CONDUIT W/ PULL STRING TO CHRISTY BOX BETWEEN "CHOOSE LANE" DIRECTIONAL SIGNAGE AND CLEARANCE BAR FOR FUTURE DRIVE THRU SENSORS.
8. FUTURE CHARGING STATION LOCATION. EC TO PROVIDE 2" CONDUIT MARKED 'EV CAPABLE' FROM PANEL 'A' TO THE JUNCTION BOX AS SHOWN ON PLANS. SEE PANEL SCHEDULE ON SHEET E3.01 FOR MORE INFORMATION.

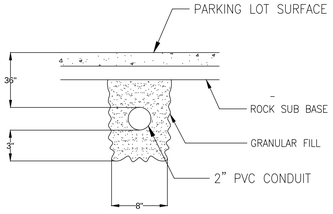
GENERAL NOTES

1. FOR UTILITY TRANSFORMER, TELEPHONE SERVICE, GAS, WATER, AND SANITARY SEWER LOCATIONS; SEE CIVIL SITE PLAN.
2. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND COMPLIANCE WITH ALL UTILITY COMPANIES REQUIREMENTS. INCOMING POWER AND TELEPHONE SERVICES IS EXISTING TO REMAIN. VERIFY REQUIREMENTS WITH UTILITIES PRIOR TO INSTALLATION.

SITE NOTES

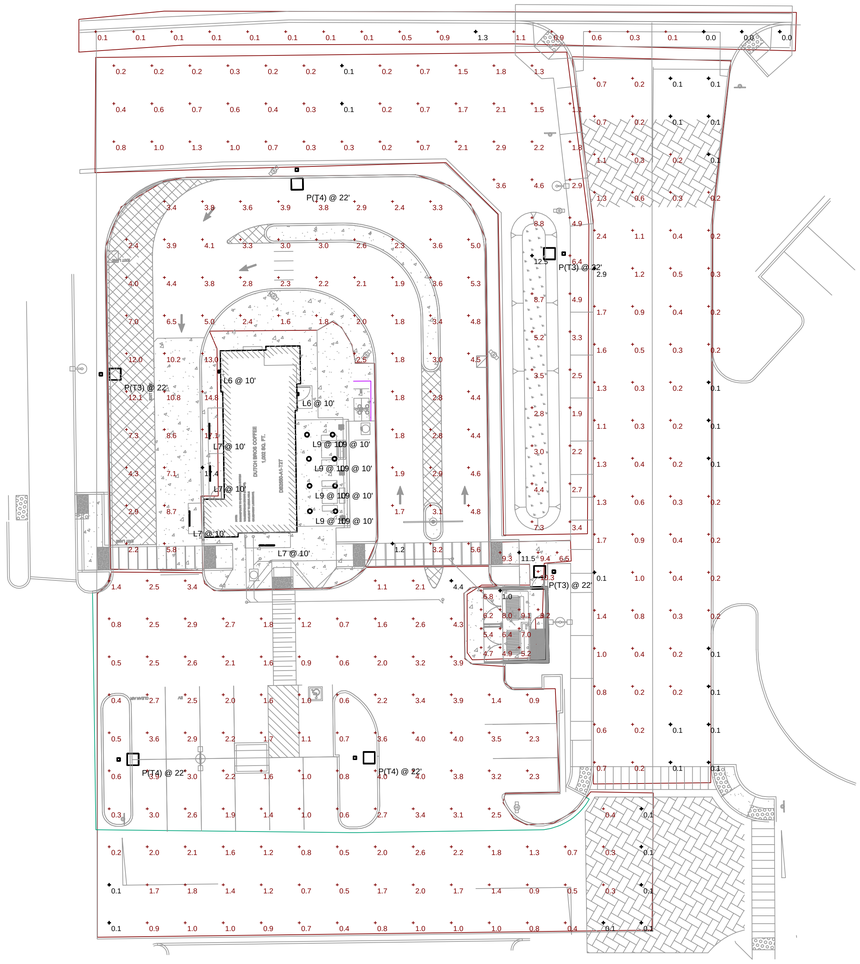
WATER LINES, CONDUITS FOR ELECTRICAL, OR OTHER UTILITIES SHALL BE LOCATED SO AS TO NOT CONFLICT WITH REQUIRED TREE LOCATIONS FOR STREETS AND PARKING LOTS.

SEE S1.4 FOR POLE BASE DETAIL



3 E100 TRENCHING DETAIL

SCALE: N.T.S.



PLAN NORTH

2 SITE PHOTOMETRIC PLAN

1/32" = 1'-0"

0 8' 32' 64'

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Drive Thru	+	4.7 fc	17.4 fc	1.2 fc	14.5:1	3.9:1
Drive Way	+	0.6 fc	2.9 fc	0.1 fc	29.0:1	6.0:1
Parking	+	1.7 fc	4.4 fc	0.1 fc	44.0:1	17.0:1
Trash	+	7.1 fc	11.5 fc	1.0 fc	11.5:1	7.1:1
Landscape	+	2.2 fc	12.5 fc	0.1 fc	125.0:1	22.0:1
Perimeter at Street	+	0.3 fc	1.3 fc	0.0 fc	N/A	N/A

Catalog Number

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Lumens Per Lamp	Wattage
	P(T4)	3	NLS Lighting	NV-1-T4-4BL-1-40K-UNV-HSS	T4 OPTICS WITH BLACK HSS		9874	156
	L9	8	DMF LIGHTING	DRD5S-4R-10930	DRD5S-4R-10930		1015	11.8
	L7	4	Self	DRD5S-4R-10930	CROWN-L90-277V 830_BA110	LED	4200	40
	L6	2	RAB LIGHTING INC.	WPLED26-WPLED26/D10 (WALLPACK) - ALED26-ALED26/D10 (AREA LIGHTER)	CAST FINNED METAL HOUSING, MACHINED METAL HEAT SINK, 1 CIRCUIT BOARD WITH 1 LED, MOLDED PLASTIC REFLECTOR WITH SEMI-SPECULAR FINISH, CLEAR FLAT GLASS LENS IN CAST BROWN PAINTED METAL FRAME.	ONE WHITE MULTI-CHIP LIGHT EMITTING DIODE (LED), TILTED 33-DEGREES FROM VERTICAL BASE-UP POSITION. INPUT VOLTAGE TO THE LED DRIVERS. Facade, Government, Harbor, Healthcare, Hospitality, Hotel, Industrial, Institutional, Library Manufacturing, Marine, Medical, Office, Parking, Parks, Pathway Pedestrian, Pool, Recreation, Residential, Retail, Site, Tunnel, Underpass, Utility, Walkway Warehouse, Water Treatment, Direct, Emergency, Security	3474	30
	P(T3)	3	NLS Lighting, LLC	NV-1-T3-4BL-1-40K-UNV	T3 silicone optics		19184	156

CASE Engineering Inc.
796 Menus Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1730

GNICH ARCHITECTURE STUDIO
AN OREGON LIMITED LIABILITY COMPANY
1001 SE SANDY BLVD, SUITE 100
PORTLAND, OR 97214
V. 503.552.9079
F. 503.241.7055
WWW.GNICHARCH.COM

XX.XX.XX

Project No: CA-3004
Dutch Bros Coffee - New Freestanding Store
Sunrise Blvd & Douglas Rd
Rancho Cordova, CA 95742
For: Dutch Bros Coffee
110 SW 4th Street
Grants Pass, OR 97526

DB-2550-A1

ISSUED FOR DESIGN REVIEW: 01.19.2022

REV:	DATE:	DESCRIPTION:

SHEET NAME:

ELECTRICAL SITE & PHOTOMETRIC PLAN

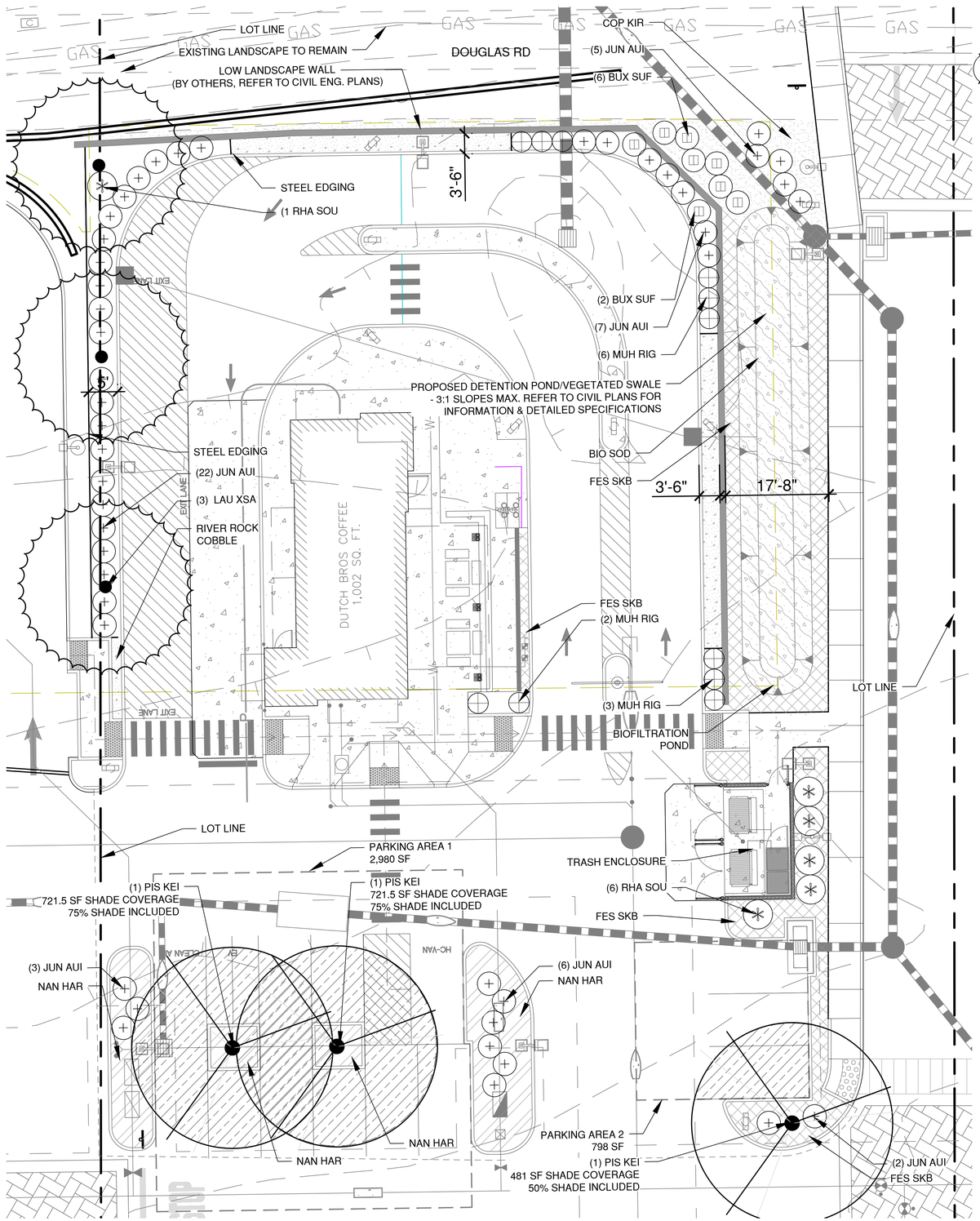
SHEET NUMBER:

A11

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0' 5' 10' 20'

Scale 1" = 10'

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE	WUCOLS	CAL	MATURE SIZE (W`XH`)	QTY	REMARKS
	LAU XSA	LAURUS X 'SARATOGA' SARATOGA HYBRID LAUREL	24" BOX	L	2" CAL	30` X 40`	3	
	PIS KEI	PISTACIA CHINENSIS 'KEITH DAVEY' KEITH DAVEY CHINESE PISTACHE	24" BOX	L	2" CAL	40` X 40`	3	

SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	WUCOLS	MATURE SIZE (W`XH`)	QTY
	BUX SUF	BUXUS SEMPERVIRENS 'SUFFRUTICOSA' SUFFRUTICOSA COMMON BOXWOOD	5 GAL	M	3X4	9
	JUN AUI	JUNIPERUS X PFITZERIANA 'AUREA IMPROVED' GOLD COAST PFITZER JUNIPER	5 GAL	L	3X4	45
	MUH RIG	MUHLENBERGIA RIGENS DEER GRASS	5 GAL	L	3X3	11
	RHA SOU	RHAPHIOLEPIS UMBELLATA 'RUTRHAPH1' TM SOUTHERN MOON YEDDA HAWTHORN	5 GAL	L	5X6	6

GROUND COVERS	CODE	BOTANICAL / COMMON NAME	SIZE	WUCOLS	MATURE SIZE (W`XH`)	SPACING	QTY	REMARKS
	BIO SOD	BIOFILTRATION SOD TM DELTA BLUE GRASS	SOD	N/A	1X1		972 SF	AVAILABLE FROM DELTA BLUE GRASS
	COP KIR	COPROSMA KIRKII CREEPING MIRROR PLANT	1 GAL	L	1`X6`	48" o.c.	25	
	FES SKB	FESTUCA X 'SISKIYOU BLUE' SISKIYOU BLUE FESCUE	1 GAL	L	1X1	12" o.c.	947	
	NAN HAR	NANDINA DOMESTICA 'HARBOUR DWARF' HARBOUR DWARF HEAVENLY BAMBOO	1 GAL	L	1`X4`	36" o.c.	67	
	--	RIVER ROCK COBBLE 1 1/2" - 3" SIZE, 4" DEEP	N/A	N/A			323 SF	

LANDSCAPE CALCULATIONS

TOTAL SITE AREA:
LANDSCAPE AREA PROVIDED: 4,145 SF
HARD SURFACE ALLOWED: 1,022 SF (25%)
HARD SURFACE PROVIDED: 402 SF

PLANT SIZE
TOTAL TREES PROVIDED: 5
24" BOX TREES REQUIRED (25%): 1
24" BOX TREES PROPOSED: 5 (100%)

EVERGREEN TREE
TOTAL TREES PROVIDED: 5
EVERGREEN TREES REQUIRED (30%): 1.2
EVERGREEN TREES PROVIDED: 5 (100%)

PARKING LOT SHADE CALCULATIONS

TOTAL PARKING AREA: 3,778 SF
TOTAL SHADING REQUIRED (50%): 1,889 SF

PARKING LOT AREA 1: 2,980 SF
SHADE PROVIDED:
(1) CHINESE PISTACHE - 35' CANOPY - 75% SHADE VALUE - 721.5 SF COVERAGE
(1) CHINESE PISTACHE - 35' CANOPY - 75% SHADE VALUE - 721.5 SF COVERAGE

PARKING LOT AREA 2:
SHADE PROVIDED: 798 SF
CHINESE PISTACHE - 35' CANOPY - 50% SHADE VALUE - 481 SF COVERAGE

TOTAL PARKING LOT SHADING PROVIDED: 1,924 SF (50.9%)

ROOT BARRIERS

THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN TEN (10) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

MULCHES

AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 3" LAYER OF HARDWOOD MULCH, NATURAL (UNDYED), IN ALL PLANTING AREAS (EXCEPT FOR TURF AREAS). ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED (SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE "GENERAL GRADING AND PLANTING NOTES" AND SPECIFICATIONS).

GENERAL PLANTING NOTES

1. BY SUBMITTING A PROPOSAL FOR THE LANDSCAPE PLANTING SCOPE OF WORK, THE CONTRACTOR CONFIRMS THAT HE HAS READ, AND WILL COMPLY WITH, THE ASSOCIATED NOTES, SPECIFICATIONS, AND DETAILS WITH THIS PROJECT, INCLUDING ALL APPLICABLE JURISDICTION REQUIREMENTS.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY THE OWNER OF ANY DISCREPANCIES.
3. THE CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY OWNER OF ANY CONFLICTS. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND THE DESIGNER DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKIGN IN THE VICINITY OF UNDERGROUND UTILITIES.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE NOTED TO REMAIN).
5. ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
   a. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES; PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUNDCOVER PATTERNS) SHALL TAKE PRECEDENCE.
   b. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IN WRITING (VIA PROPER CHANNELS).
   c. THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE REPRESENTATIVE PHOTOS OF ALL PLANTS PROPOSED FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE OWNER OR OWNER'S REPRESENTATIVE TO INSPECT, AND APPROVE OR REJECT, ALL PLANTS DELIVERED TO THE JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS.
6. THE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A HEALTHY CONDITION FOR 90 DAYS AFTER ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START OF THE MAINTENANCE PERIOD, AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD.
7. THE CONTRACTOR SHALL INSTALL WEED CONTROL LAYER PER SPECIFICATIONS IN ALL MULCH AND RIVER ROCK COBBLE AREAS.
8. NURSERY STAKES TO BE REMOVED AT THE TIME OF PLANTING.
9. SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

EVERGREEN DESIGN GROUP
(800) 680-6630
11801 Pierce Street, Suite 200
Riverside, CA 92505
www.EvergreenDesignGroup.com

PRELIMINARY NOT FOR CONSTRUCTION

Title: LANDSCAPE PLANTING PLAN
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For: DUTCH BROS Coffee

LICENSED LANDSCAPE ARCHITECT
JANE RIMEHART LICENSE NUMBER 5854
9-30-22 RENEWAL DATE
02-23-22 DATE
STATE OF CALIFORNIA

Scale: Horizontal 1"=10'-0" Vertical

Designed BR | Drawn BR | Checked BR/RM | Approved RM | Date 02/23/22

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 barghausen.com

Job Number 22015

Sheet LP-1

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C:\Users\Vidal\Dropbox (EDG)\EDG - Shared\2021\Dutch Bros\Dutch Bros - Rancho Cordova CA - Sunrise Blvd & Douglas Rd\Dutch Bros-Rancho Cordova CA-LP - 2022-02-23.dwg 1/19/2022 2:35 PM BLAKE

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DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004

PLANTING SPECIFICATIONS

GENERAL

A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR
   1. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING.
   2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.

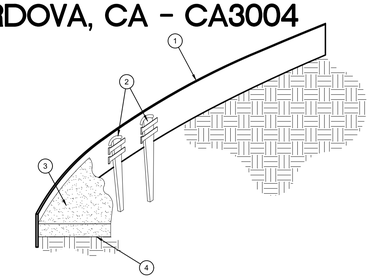
B. SCOPE OF WORK
   1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.
   2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.
   3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK.

PRODUCTS

A. ALL MANUFACTURED PRODUCTS SHALL BE NEW.
B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:
   1. FURNISH NURSERY-GROWN PLANTS COMPLYING WITH THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014). PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMACTIC CONDITIONS.
   2. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).
   3. TREES MAY BE PLANTED FROM CONTAINERS OR BALLED-AND-BURLAPPED (B&B), UNLESS SPECIFIED ON THE PLANTING LEGEND. BARE-ROOT TREES ARE NOT ACCEPTABLE.
   4. ANY PLANT DEEMED UNACCEPTABLE BY THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTBLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
   5. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
   6. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER.
   7. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL. WHERE CALIPER MEASUREMENTS ARE USED, THE CALIPER SHALL BE CALCULATED AS ONE-HALF OF THE SUM OF THE CALIPER OF THE THREE LARGEST TRUNKS.
   8. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
C. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN ½ INCH, FOREIGN MATTER, PLANTS, ROOTS, AND SEEDS.
D. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED.
E. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL-TESTING AGENCY (SEE BELOW).
F. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.
G. TREE STAKING AND GUYING
   1. STAKES: 6' LONG GREEN METAL T-POSTS.
   2. GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH DIAMETER.
   3. STRAP CHAFING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE.
I. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

METHODS

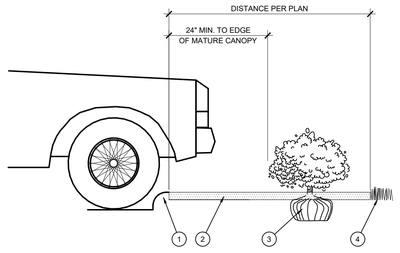
A. SOIL PREPARATION
   1. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST.
   2. SOIL TESTING:
      a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY. EACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL, TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS, THE CONTRACTOR SHALL TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS FOR TESTING.
      b. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT.
      c. THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES.
      d. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEED, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
   3. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.
   4. FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING:
      a. TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
         i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
         ii. PREPLANT TURF FERTILIZER (10-20-10 OR SIMILAR, SLOW RELEASE, ORGANIC) - 15 LBS PER 1,000 S.F.
         iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE
      b. TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
         i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
         ii. 12-12-12 FERTILIZER (OR SIMILAR, ORGANIC, SLOW RELEASE) - 10 LBS. PER CU. YD.
         iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE
         iv. IRON SULPHATE - 2 LBS. PER CU. YD.
   5. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.
      a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
      b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
      c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED.
      d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
      e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
      f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE GENERAL CONTRACTOR, OWNER, OR OWNER'S REPRESENTATIVE.
   6. ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.
B. SUBMITTALS
   1. THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SAMPLES, IF REQUIRED, TO THE OWNER OR OWNER'S REPRESENTATIVE, AND RECEIVE APPROVAL IN WRITING FOR SUCH SUBMITTALS BEFORE WORK COMMENCES.
   2. SUBMITTALS SHALL INCLUDE PHOTOS OF PLANTS WITH A RULER OR MEASURING STICK FOR SCALE, PHOTOS OR SAMPLES OF ANY REQUIRED MULCHES, AND SOIL TEST RESULTS AND PREPARATION RECOMMENDATIONS FROM THE TESTING LAB (INCLUDING COMPOST AND FERTILIZER RATES AND TYPES, AND OTHER AMENDMENTS FOR TREE/SHRUB, TURF, AND SEED AREAS AS MAY BE APPROPRIATE).
   3. SUBMITTALS SHALL ALSO INCLUDE MANUFACTURER CUT SHEETS FOR PLANTING ACCESSORIES SUCH AS TREE STAKES AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY).
   4. WHERE MULTIPLE ITEMS ARE SHOWN ON A PAGE, THE CONTRACTOR SHALL CLEARLY INDICATE THE ITEM BEING CONSIDERED.
C. GENERAL PLANTING
   1. REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.
   2. EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES, APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE.
   3. POSITION THE TREES AND SHRUBS IN THEIR INTENDED LOCATION AS PER THE PLAN. NOTIFY THE OWNER'S REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL POSITIONING OF PLANT MATERIALS.
   4. TRENCHING NEAR EXISTING TREES:
      a. CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).
      b. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ.
      c. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.
      d. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.
D. TREE PLANTING
   1. TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO TO FOUR INCHES.
   2. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE.
   3. FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE ROOTBALL.
   4. INSTALL THE TREE ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES ABOVE THE SURROUNDING GRADE.
   5. BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS AND COMPOSITION IN THE ON-SITE SOIL.
   6. TREES SHALL NOT BE STAKED UNLESS THE JURISDICTION OR LOCAL CONDITIONS (SUCH AS HEAVY WINDS OR SLOPES) REQUIRE STAKES TO KEEP TREES UPRIGHT. SHOULD STAKING BE REQUIRED, THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUMS LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION. SHOULD ANY TREES FALL OR LEAN, THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN THE TREE, OR REPLACE IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES:
      a. 1"-2" TREES (OR #15 GAL - 24" BOX): TWO STAKES PER TREE
      b. 2-1/2"-4" TREES (OR 36" - 48" BOX): THREE STAKES PER TREE
      c. TREES OVER 4" CALIPER (OR >48" BOX): GUY AS NEEDED
      d. MULTI-TRUNK TREES: THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS NEEDED TO STABILIZE THE TREE
   7. UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE. COVER THE INTERIOR OF THE TREE RING WITH MULCH (TYPE AND DEPTH PER PLANS).
   8. FOR TREES IN TURF AREAS, DO NOT PLANT GRASS ALL THE WAY TO THE TRUNK OF THE TREE. LEAVE THE AREA OVER THE ROOT BALL AND INSTALL MULCH WITH AT LEAST 2" OF SPECIFIED MULCH. SEE MULCH SPECIFICATION FOR ADDITIONAL INFORMATION.
E. SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING
   4. DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS.
   5. INSTALL THE WEED BARRIER CLOTH, OVERLAPPING IT AT THE ENDS. UTILIZE STEEL STAPLES TO KEEP THE WEED BARRIER CLOTH IN PLACE.
   6. WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS, COVERING THE ENTIRE PLANTING AREA.
I. MULCH
   6. INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING AREAS AND TREE RINGS.
   7. DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE. MULCH AT THE BASE OF SHRUBS SHALL BE A MAXIMUM 1" DEPTH OVER ROOT BALL
   8. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. FINISH GRADE OF MULCH AT CURBS AND SIDEWALKS SHALL BE 1" LOWER THAN THE ADJACENT CURB OR SIDEWALK. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF WALL.
J. CLEAN UP
   1. DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION.
   2. DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.
K. INSPECTION AND ACCEPTANCE
   1. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
   2. WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.
   3. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.
L. LANDSCAPE MAINTENANCE
   1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTING OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, TREATING FOR INSECTS AND DISEASES, REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
   2. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF PLANTS AT NO ADDITIONAL COST TO THE OWNER.
   3. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:
      i. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
      j. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
      k. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE FIRST MOWING. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.
M. WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS
   1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
   2. AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS.
N. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.



1) ROLLED-TOP STEEL EDGING PER PLANS.
2) TAPERED STEEL STAKES.
3) MULCH, TYPE AND DEPTH PER PLANS.
4) FINISH GRADE.

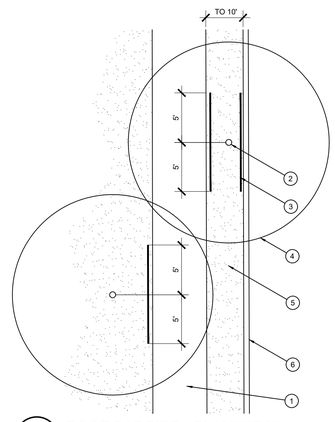
NOTES:
1) INSTALL EDGING SO THAT STAKES WILL BE ON INSIDE OF PLANTING BED.
2) BOTTOM OF EDGING SHALL BE BURIED A MINIMUM OF 1" BELOW FINISH GRADE.
3) TOP OF MULCH SHALL BE 1" LOWER THAN TOP OF EDGING.

D STEEL EDGING
SCALE: NOT TO SCALE



1) CURB.
2) MULCH LAYER.
3) PLANT.
4) TURF (WHERE SHOWN ON PLAN).

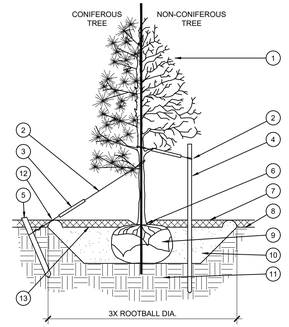
E PLANTING AT PARKING AREA
SCALE: NOT TO SCALE



1) TYPICAL WALKWAY OR PAVING
2) TREE TRUNK
3) LINEAR ROOT BARRIER MATERIAL. SEE PLANTING NOTES FOR TYPE AND MANUFACTURER. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
4) TREE CANOPY
5) TYPICAL PLANTING AREA
6) TYPICAL CURB AND GUTTER

NOTES:
1) INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN TEN (10) FEET OF PAVING OR CURBS.
2) BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

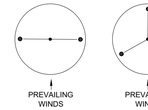
F ROOT BARRIER - PLAN VIEW
SCALE: NOT TO SCALE



1) TREE CANOPY.
2) CINCH-TIES (24" BOX/2" CAL. TREES AND SMALLER) OR 12 GAUGE GALVANIZED WIRE WITH NYLON TREE STRAPS AT TREE AND STAKE (36" BOX/2.5" CAL. TREES AND LARGER). SECURE TIES OR STRAPS TO TRUNK JUST ABOVE LOWEST MAJOR BRANCHES.
3) 24" X 3/4" P.V.C. MARKERS OVER WIRES.
4) GREEN STEEL T-POSTS. EXTEND POSTS 12" MIN. INTO UNDISTURBED SOIL.
5) PRESSURE-TREATED WOOD DEADMAN, TWO PER TREE (MIN.). BURY OUTSIDE OF PLANTING PIT AND 18" MIN. INTO UNDISTURBED SOIL.
6) TRUNK FLARE.
7) 3" MIN. DEPTH MULCH, TYPE AND DEPTH PER PLANS. DO NOT PLACE MULCH WITHIN 6" OF TRUNK.
8) FINISH GRADE.
9) ROOT BALL.
10) BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
11) UNDISTURBED NATIVE SOIL.
12) 4" HIGH EARTHEN WATERING BASIN.
13) FINISH GRADE.

NOTES:
1. SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE.
2. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT COVERS THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 2"-4" ABOVE FINISH GRADE.
3. FOR B&B TREES, CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE, CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN HOLE. REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE AS MUCH BURLAP FROM AROUND ROOTBALL AS IS PRACTICAL.
4. REMOVE ALL NURSERY STAKES AFTER PLANTING.
5. FOR TREES 36" BOX/2.5" CAL. AND LARGER, USE THREE STAKES OR DEADMEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE.
6. STAKING SHALL BE TIGHT ENOUGH TO PREVENT TRUNK FROM BENDING, BUT LOOSE ENOUGH TO ALLOW SOME TRUNK MOVEMENT IN WIND.
7. NURSERY STAKES SHALL BE REMOVED AT THE TIME OF PLANTING.

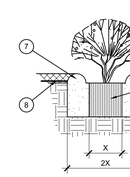
STAKING EXAMPLES (PLAN VIEW)



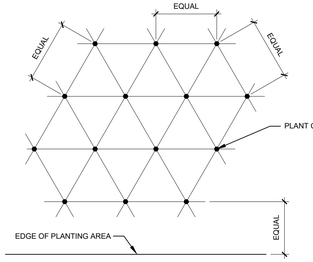
A TREE PLANTING
SCALE: NOT TO SCALE

1) CURB.
2) MULCH LAYER.
3) PLANT.
4) TURF (WHERE SHOWN ON PLAN).

B SHRUB AND GROUNDCOVER PLANTING
SCALE: NTS



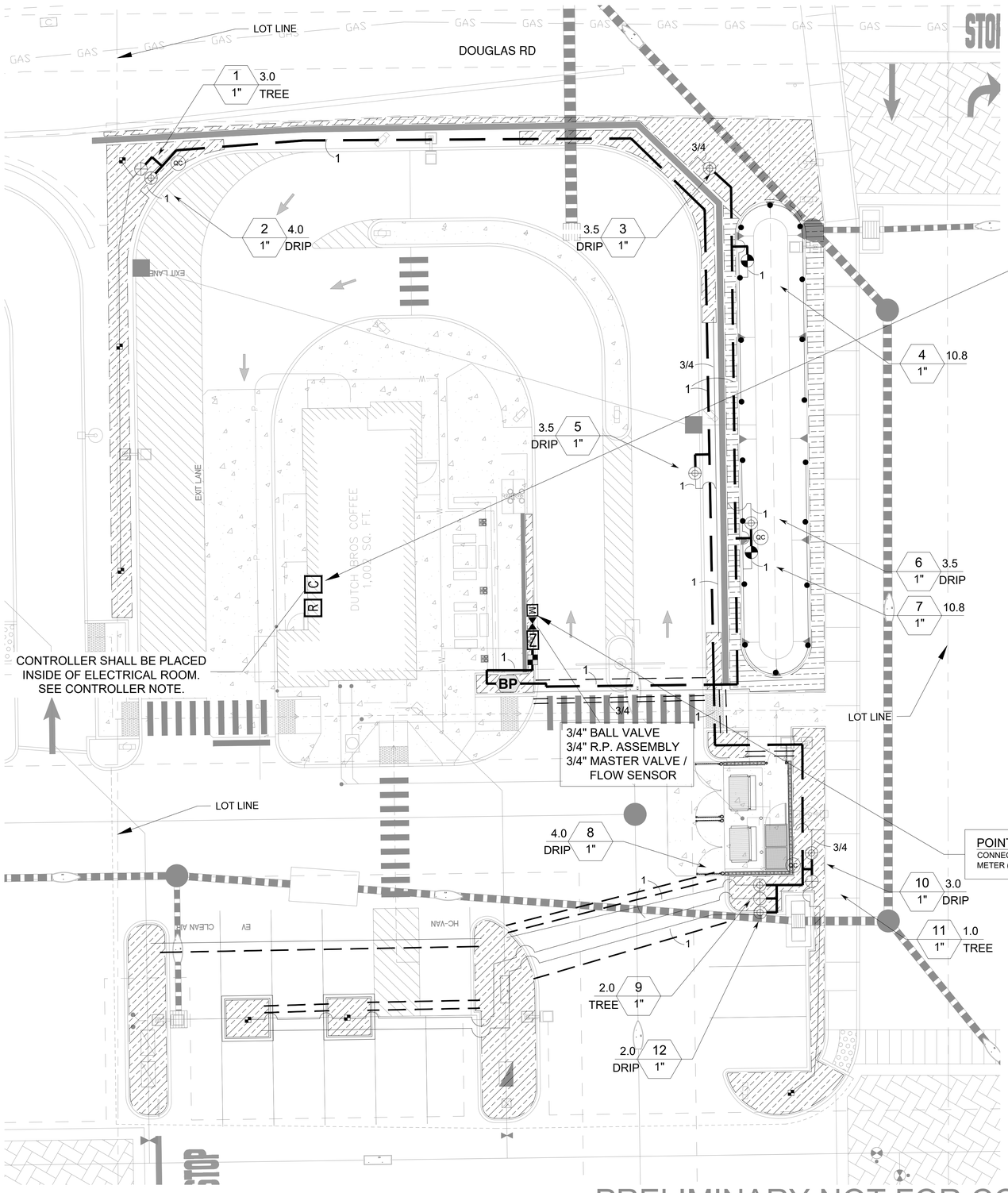
1) SHRUB, PERENNIAL, OR ORNAMENTAL GRASS.
2) 3" MIN. DEPTH MULCH, TYPE AND DEPTH PER PLANS. PLACE NO MORE THAN 1" OF MULCH WITHIN 6" OF PLANT CENTER.
3) FINISH GRADE.
4) ROOT BALL.
5) BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
6) UNDISTURBED NATIVE SOIL.
7) 3" HIGH EARTHEN WATERING BASIN.
8) WEED FABRIC UNDER MULCH.



NOTE: ALL PLANTS SHALL BE PLANTED AT EQUAL TRIANGULAR SPACING (EXCEPT WHERE SHOWN ON PLANS AS INFORMAL GROUPINGS). REFER TO PLANT LEGEND FOR SPACING DISTANCE BETW

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DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004



IRRIGATION DISCLAIMER

THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQURED TO MOVE SUCH ITEMS AT HIS OWN COST.

IRRIGATION CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL FINAL QUANTITIES PER DRAWINGS AND SPECIFICATIONS. ANY QUANTITIES PROVIDED ARE PROVIDED AS A CONVENIENCE TO THE CONTRACTOR ONLY AND SHALL NOT BE CONSIDERED ABSOLUTE.

SLEEVING / WIRING NOTES:

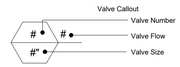
IN ADDITION TO PROVIDING SLEEVES FOR ALL PIPING UNDER ROADWAYS AND WALKWAYS, THE IRRIGATION CONTRACTOR SHALL PROVIDE AND INSTALL SCH. 40 PVC SLEEVES FOR ALL CONTROLLER WIRES OCCURRING UNDER ALL ROADWAYS AND WALKWAYS. SLEEVES FOR CONTROLLER WIRES SHALL BE 2" DIA. AND CONTAIN NO MORE THAN 25 WIRES. **FOR PLAN CLARITY, ONLY SOME REPRESENTATIVE SLEEVES ARE SHOWN; SOME SLEEVES MAY NOT BE SHOWN.**

CONTROLLER NOTE

LOCATE CONTROLLER AT LOCATION SHOWN ON PLAN. VERIFY LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE.

120 VAC POWER TO CONTROLLER LOCATION IS NOT WITHIN THE IRRIGATION CONTRACTOR'S SCOPE OF WORK, AND SHALL BE PROVIDED BY OTHERS. HOOK-UP OF CONTROLLER TO 120 VAC SHALL BE PERFORMED BY THE IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF WIRE SLEEVE PENETRATIONS THROUGH BUILDING WITH OWNER AND GENERAL CONTRACTOR. STATION RUN ORDER SHALL MATCH PLANS.

VALVE KEY



IRRIGATION_LEGEND

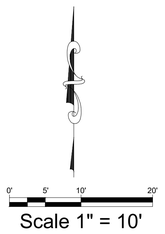
SYMBOL	MANUFACTURER/MODEL
•	RAINBIRD 1806-SAM-PRS SERIES 12H POP UP SPRAY HEAD WITH U-SERIES NOZZLE AT 25 PSI.
▪	RAINBIRD 1806-SAM-PRS SERIES POP UP SPRAY HEADS WITH ADAPTER AND RAINBIRD #1402 SERIES BUBBLER NOZZLES@ 25psi. (TWO PER TREE) SEE INSTALLATION NOTE #N-5 REGARDING TREE BUBBLER LATERAL PIPE
⊕	RAINBIRD XCZ-100-PRB-COM / 150-PRB-COM SERIES AUTOMATIC DRIP VALVE ASSEMBLY WITH 40 PSI PRESSURE REGULATOR XCZ-100-PRB-COM - 1" BALL VALVE WITH 1" PESB VALVE AND 1" PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. 0.3GPM TO 20GPM. XCZ-150-PRB-LCDR - 1-1/2" PESB-R SCRUBBER GLOBE VALVE WITH SINGLE 1-1/2" PRESSURE REGULATING (40PSI) QUICK-CHECK BASKET FILTERS. FLOW RANGE: 15-62GPM.
⊕	RAINBIRD PEB SERIES ELECTRIC REMOTE CONTROL, "TREE BUBBLER ZONE" VALVE SEE INSTALLATION NOTE #N-5 REGARDING TREE BUBBLER LATERAL PIPE
	AREA TO RECEIVE DRIPLINE RAINBIRD XFS-CV-06-12 SERIES DRIP TUBE IN SHRUB BED INSTALLED AT 2" DEPTH REFERENCE LANDSCAPE PLAN FOR SHRUB PLACEMENT
R	ZURN / WILKINS 375XLB SERIES REDUCED PRESSURE TYPE BACKFLOW PREVENTOR INSTALLED PER CITY CODE WITH SAME SIZE BRONZE BALL VALVE INSTALLED ON THE UP-STREAM SIDE. MOUNTED IN STRONGBOX SMOOTH TOUCH ENCLOSURE.
	LASCO "V101N" SERIES SCH. 80 PVC TRUE UNION BALL VALVE, MAINLINE SIZE
M	IRRIGATION WATER METER AND TAP, SIZE AS NOTED ON THE PLAN
QC	RAINBIRD 33-DNP QUICK COUPLING VALVE WITH 3/4" PVC BALL VALVE
C	RAINBIRD ESP12LXMEF SERIES AUTOMATIC WALL MOUNT CONTROLLER WITH ONE ESPLXMSM8 STATION MODULE AND WR2-RFC RAIN / FREEZE SENSOR LOCATE SENSOR AS FIELD DIRECTED BY THE LANDSCAPE ARCHITECT
▪	"MASTER" ELECTRIC VALVE (SAME SIZE AS METER) WITH RAINBIRD FLOW SENSOR MODEL #FS100B SERIES
BP	Rain Bird D Series "VERTICAL PUMP STATION" 3hp Providing 15 gpm @ 20psi boost. BOOST ON DISCHARGE SIDE OF PUMP SHALL BE 55 PSI MINIMUM.
	IRRIGATION LATERAL LINE: CLASS 200
	IRRIGATION MAINLINE: SCHEDULE 40 PVC
	IRRIGATION SLEEVE, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED
	IRRIGATION SLEEVES, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED

IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.

NOTE: *** ALL PIPE TO BE SIZED SUCH THAT FLOWS WILL NOT EXCEED VELOCITY OF 5 FPS ***

POINT OF CONNECTION

CONNECT MAINLINE DOWNSTREAM OF 3/4" WATER METER (BY OTHERS). VERIFY LOCATION IN FIELD.



EVERGREEN DESIGN GROUP
(800) 680-6630
11801 Pierce Street, Suite 200
Riverside, CA 92505
www.EvergreenDesignGroup.com

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Title: LANDSCAPE IRRIGATION PLAN
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For: DUTCH BROS COFFEE

LICENSED LANDSCAPE ARCHITECT BRIAN REINHART LICENSE NO. 6482 — 5-30-22 RENEWAL DATE — 02-23-22 DATE — STATE OF CALIFORNIA

Scale: Horizontal 1"= 10'-0" Vertical

Designed BR | Drawn BR | Checked BR/RM | Approved RM | Date 02/23/22

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

Job Number 22015

Sheet LI-1

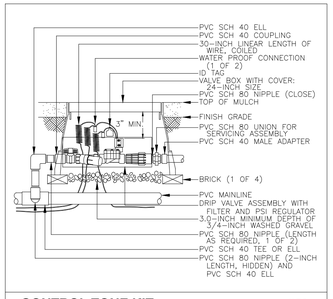
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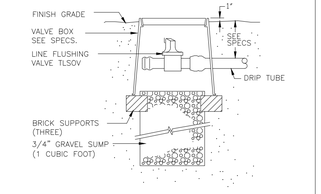
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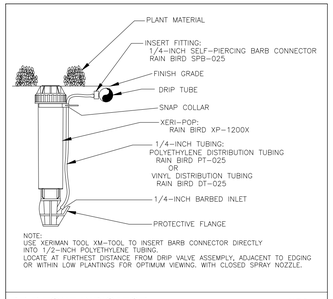
DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004



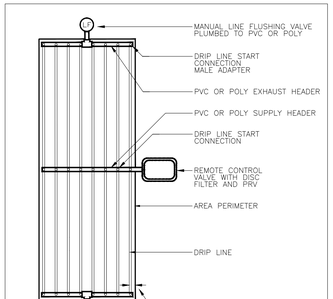
CONTROL ZONE KIT N.T.S.



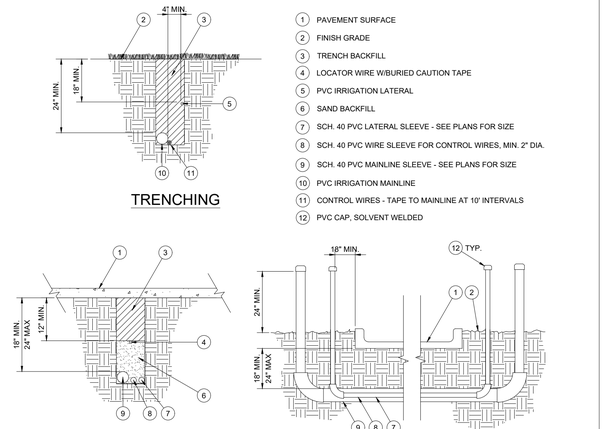
MANUAL LINE FLUSH VALVE N.T.S.



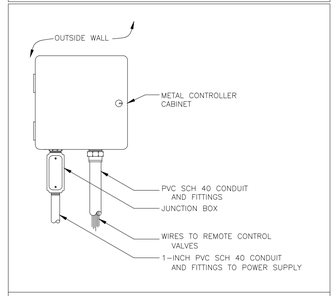
DRIP ZONE INDICATOR N.T.S.



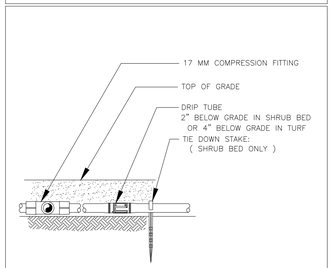
DRIP CENTER FEED LAYOUT N.T.S.



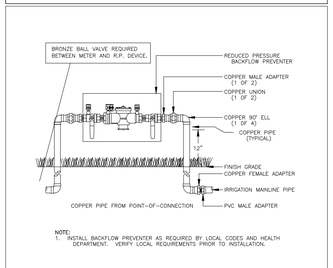
PIPE AND SLEEVE INSTALLATION N.T.S.



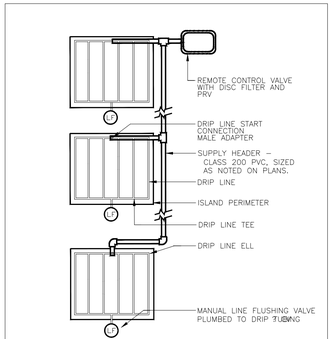
WALL MOUNT CONTROLLER N.T.S.



DRIP TUBE N.T.S.

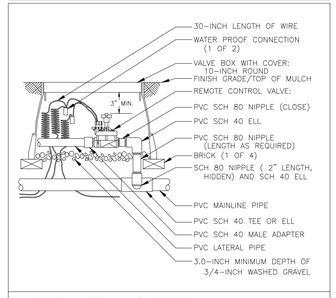


RP DEVICE N.T.S.

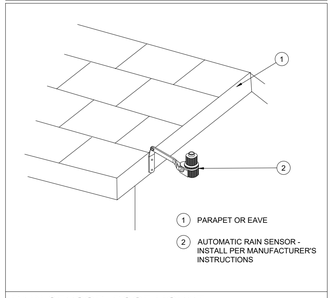


DRIP ISLAND LAYOUT N.T.S.

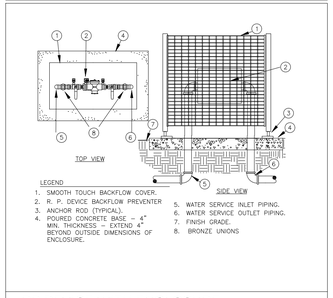
AUTOMATIC DRAIN VALVE N.T.S.



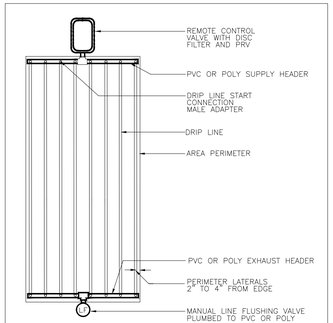
REMOTE CONTROL VALVE N.T.S.



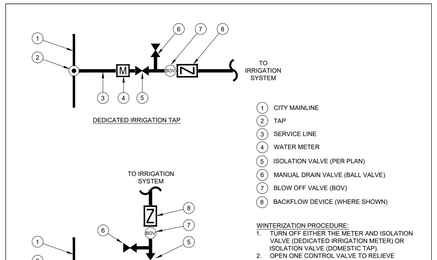
RAIN SENSOR, ROOF MOUNT N.T.S.



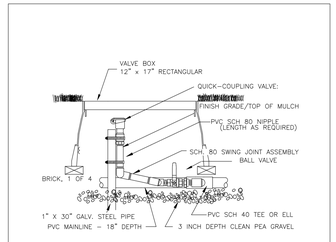
RP DEVICE WITH ENCLOSURE N.T.S.



DRIP END FEED LAYOUT N.T.S.

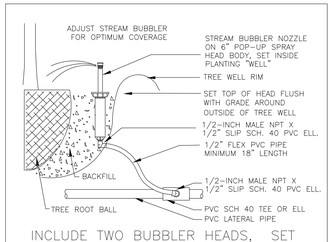


WATER TAP DIAGRAM N.T.S.

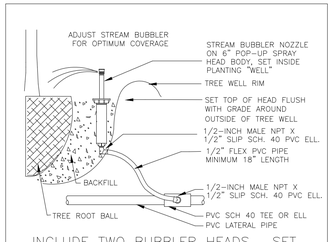


N.T.S.

QUICK COUPLER VALVE WITH PVC BALL VALVE



TREE BUBBLER N.T.S.



TREE BUBBLER N.T.S.

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11801 Pierce Street, Suite 200
Riverside, CA 92505
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Title: LANDSCAPE IRRIGATION DETAILS
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For: DUTCH BROS Coffee

LICENSED LANDSCAPE ARCHITECT
JAY RHINEHART LICENSE NO. 5854
8-30-22
RENEWAL DATE
02-23-22
DATE
STATE OF CALIFORNIA

Scale: Horizontal 1"=10'-0" Vertical

Designed	BR
Drawn	BR
Checked	BB/RM
Approved	RM
Date	02/23/22

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

Job Number 22015

Sheet LI-2

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IRRIGATION SPECIFICATIONS

GENERAL

A. QUALIFICATIONS OF IRRIGATION CONTRACTOR
1. ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE IRRIGATION CONTRACTING FIRM SPECIALIZING IN IRRIGATION SYSTEMS. SEE THE IRRIGATION PLAN FOR SPECIFIC EQUIPMENT AND SYSTEM LAYOUT.
2. THE IRRIGATION CONTRACTOR MUST HAVE ON ITS STAFF A LICENSED IRRIGATION INSTALLER, AS REGULATED BY THE APPROPRIATE LOCAL JURISDICTION. A LICENSED IRRIGATION INSTALLER SHALL BE PRESENT AT THE PROJECT SITE AT ALL TIMES AS WORK IS IN PROGRESS. THE OWNER MAY DEMAND THAT WORK STOP UNTIL THE CONTRACTOR PROVIDES FOR A LICENSED IRRIGATION INSTALLER TO BE PRESENT AT THE PROJECT SITE AND SUPERVISING ALL IRRIGATION WORK.
3. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.

B. SCOPE OF WORK
1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES, FEES, AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND/OR SHOWN ON THE IRRIGATION PLANS, NOTES, AND DETAILS.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS. IN CASE OF CONFLICT BETWEEN THESE PLANS AND LOCAL AND/OR STATE CODES, CODES SHALL PREVAIL.
3. THE INTENT OF THE IRRIGATION SYSTEM IS TO PROVIDE 100% COVERAGE OF ALL LANDSCAPE AREAS. THE IRRIGATION PLAN IS GENERALLY DIAGRAMMATIC; COORDINATE IRRIGATION INSTALLATION WITH UTILITY INSTALLATIONS. ACTUAL LOCATION OF CONTROLLER, BACKFLOW DEVICE, PIPING, VALVES, SPRAY HEADS, DRIP IRRIGATION, AND RELATED EQUIPMENT MAY NEED TO BE ADJUSTED BASED ON ACTUAL SITE CONDITIONS.
4. FOR CLARITY PURPOSES, SOME IRRIGATION LINES AND EQUIPMENT ARE SHOWN IN HARDSCAPE AREAS WITHOUT ACCESS SLEEVES; THESE LINES SHALL BE INSTALLED IN A COMMON TRENCH OR AT THE BACK OF CURB IN LANDSCAPE AREAS. MINOR FIELD ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

PRODUCTS

A. ALL MATERIALS SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND SHALL BE THE BEST OF THEIR CLASS AND KIND. ALL MATERIALS SHALL HAVE A MINIMUM GUARANTEE OF ONE YEAR AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP. ALL MATERIALS SHALL BE OF THE BRANDS AND TYPES NOTED ON THE DRAWINGS OR AS SPECIFIED HEREIN, OR APPROVED EQUAL. THE CONTRACTOR MUST FIRST OBTAIN APPROVAL FROM THE IRRIGATION DESIGNER FOR AN 'APPROVED EQUAL' BEFORE INSTALLING SUCH MATERIALS IN THE FIELD, OR THE CONTRACTOR MAY BE REQUIRED TO REPLACE SUCH MATERIALS AT HIS OWN COST.
B. BACKFLOW PREVENTION DEVICES SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS. INSTALL BACKFLOW PREVENTION UNITS IN ACCORDANCE WITH IRRIGATION CONSTRUCTION DETAILS AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
C. PIPING
1. PRESSURE SUPPLY LINES, DOWNSTREAM OF THE POINT-OF-CONNECTION:
a. SCHEDULE 40 PVC FOR ALL PIPE 1-1/2" OR LESS
b. CLASS 315 PVC FOR ALL PIPE 2" TO 2-1/2"
c. CLASS 200 PVC, GASKETED, FOR ALL PIPE 3" AND LARGER
2. SLEEVING AND NON-PRESSURE LATERAL LINES (DOWNSTREAM FROM VALVES): CLASS 200 PVC
3. FITTINGS: SCH. 40 PVC, EXCEPT AS NOTED OTHERWISE
D. VALVES AND DRIP VALVE ASSEMBLIES: TYPE AND SIZE AS NOTED ON PLANS. EACH VALVE SHALL BEAR A PRE-MANUFACTURED, NUMBERED WATERPROOF TAG BEARING A NUMBER CORRESPONDING TO ITS VALVE SEQUENCE OF OPERATION ON THE CONTROLLER. THE OPERATION SEQUENCE SHALL MATCH THAT AS SHOWN ON THE PLANS.
E. QUICK COUPLERS, BALL VALVES, AND GATE VALVES: TYPE AND SIZE PER PLANS.
F. VALVE BOXES: TYPE AND SIZE AS NOTED ON DETAILS. ALL VALVES BOXES SHALL BE LOCKING BOLT-DOWN TYPE, FURNISHED WITH LIDS AND BOLTS. BOXES SHALL BE OF A SIZE TO CONTAIN THE ENTIRE VALVE AND/OR VALVE ASSEMBLY. THE VALVE BOX LID SHALL HAVE THE VALVE STATION NUMBER HEAT-BRANDED INTO THE LID WITH 2" HIGH LETTERS.
G. FIXED SPRAY HEADS AND ROTORS: PLASTIC BODY POP-UP, WITH A REMOVABLE PLASTIC SPRAY NOZZLE. EXACT TYPE, MODEL, AND NOZZLE SHALL BE AS INDICATED ON PLANS.
H. INTEGRAL EMITTER DRIP TUBING: TUBING MODEL AND FLOW RATE AS NOTED ON PLANS, WITH INTEGRAL EMITTERS WELDED TO THE INSIDE WALL OF THE TUBING AS AN INTEGRAL PART OF THE TUBING ASSEMBLY.
I. AUTOMATIC CONTROLLER: TYPE AND MODEL PER PLANS. PROVIDE VANDAL-PROOF ENCLOSURE FOR ALL EXTERIOR INSTALLATIONS. PROVIDE LINE-VOLTAGE DISCONNECT SWITCH WITH GROUND FAULT PROTECTION.
J. 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.F. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR IRRIGATION WIRE. EACH CONTROLLER SHALL HAVE A DIFFERENT COLOR STATION AND COMMON WIRE.
1. STATION WIRE - ANY COLOR EXCEPT WHITE OR BLUE
2. COMMON WIRE - WHITE
3. EXTRA COMMON WIRES - BLUE
K. WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF COMPOUND OR GEL. ALL FIELD SPLICES SHALL BE LOCATED IN A 6 INCH ROUND VALVE BOX.
L. RAIN SENSOR: TYPE AND MODEL PER PLANS.

METHODS

A. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION. OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST. ENSURE FIELD COORDINATION IS MADE EARLY ON IN THE CONSTRUCTION PHASE SO PLACEMENT LOCATION IS CORRECT.
B. THE IRRIGATION CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK, AND SHALL OBTAIN ALL ENGINEERING, LANDSCAPE, AND OTHER APPLICABLE PLANS & DOCUMENTS. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE PLANS AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY.
C. THE IRRIGATION CONTRACTOR SHALL NOT WILFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADES OR DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE IRRIGATION DESIGNER. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS AND NECESSARY COSTS.
D. THE IRRIGATION CONTRACTOR SHALL PAY ANY AND ALL FEES AND PERMITS ASSOCIATED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM.
E. AT LEAST SEVEN DAYS BEFORE BEGINNING WORK, CONFIRM THE STATIC WATER PRESSURE IS AT LEAST 65 PSI. IF STATIC WATER PRESSURE IS OUTSIDE OF THE STATED RANGE, DO NOT PROCEED WITHOUT FIRST NOTIFYING THE IRRIGATION DESIGNER AND OWNER IN WRITING, AND OBTAINING SUBSEQUENT DIRECTION FOR CORRECTIONAL MEASURES. SHOULD THE IRRIGATION CONTRACTOR CHOOSE TO BEGIN THE INSTALLATION WITHOUT SUCH NOTIFICATION, THE IRRIGATION CONTRACTOR WILL ASSUME THE RESPONSIBILITY FOR ALL COSTS INCURRED TO ENSURE THE SYSTEM IS WORKING PROPERLY. NO CHANGE ORDERS WILL BE AUTHORIZED IN SUCH CIRCUMSTANCES.
F. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATIONS OF WALLS, STRUCTURES AND UTILITIES.
G. COORDINATE WITH THE OWNER THE PROPOSED LOCATIONS OF THE AUTOMATIC CONTROLLER AND ANY REQUIRED SLEEVES THROUGH THE BUILDING FOR CONTROL WIRES.
H. TRENCHING NEAR EXISTING TREES:
1. CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).
2. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ.
3. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.
4. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.

I. BACKFILL
1. ALL BACKFILL MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE OWNER. BACKFILL MATERIAL SHALL BE FREE FROM RUBBISH, ROCK LARGER THAN 1", LARGE STONES, BRUSH, SOD, FROZEN MATERIAL OR OTHER UNSUITABLE SUBSTANCES THAT MAY DAMAGE PIPE DURING THE BACKFILLING OPERATIONS. SEPARATE OUT ROCKS LARGER THAN 1 INCH IN ANY DIRECTION FROM EXCAVATED MATERIAL, AND REMOVE FROM AREAS TO RECEIVE LANDSCAPING. COVER FOR BOTH TOP AND SIDES OF PIPE SHALL BE A MINIMUM OF 2 INCHES OF ROCK-FREE SOIL, SAND, OR OTHER APPROVED MATERIAL.
2. IN THE EVENT THAT THE MATERIAL FROM THE EXCAVATION OR TRENCHING IS FOUND TO BE UNSUITABLE FOR USE IN BACKFILL, IT SHALL BE REMOVED FROM THE SITE AND PROPERLY AND LEGALLY DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL THEN PURCHASE AND AND FURNISH SUITABLE BACKFILL MATERIAL CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS FREE OF DEBRIS.

J. BACKFLOW PREVENTER INSTALLATION: CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER SOURCES AT LOCATION SHOWN ON PLANS AND AS APPROVED BY THE OWNER, AND SHALL MAKE ANY MINOR CHANGES IN LOCATION AS MAY BE NECESSARY DUE TO ACTUAL SITE CONDITIONS. BACKFLOW PREVENTER HEIGHT SHALL BE AS PER LOCAL CODES AND IRRIGATION DETAILS. INSTALL A BRASS BALL VALVE IMMEDIATELY UPSTREAM OF THE BACKFLOW DEVICE TO SERVE AS AN ISOLATION VALVE. TO EVERY EXTENT POSSIBLE, INSTALL BACKFLOW PREVENTER ION A LOCATION SCREENED FROM PUBLIC VIEW (SUCH AS BEHIND A SHRUB ROW).

K. PIPING:
1. PIPE SIZE SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS FOR LARGER SIZES MAY BE APPROVED.
2. MAINLINE PIPE AND WIRES SHALL BE INSTALLED WITH A MINIMUM COVER OF 18 INCHES (24" FOR MAINLINE 3"-5", AND 30" FOR MAINLINE 6" AND GREATER). LATERAL PIPE SHALL BE INSTALLED WITH A MINIMUM COVER OF 12 INCHES.
3. ASSEMBLE ALL THREADED FITTINGS WITH TEFLON TAPE, WHICH SHALL BE APPLIED TO MALE THREADS ONLY.
4. ALL SOLVENT-WELD CONNECTIONS SHALL BE MADE WITH APPROVED SOLVENT-WELD PRIMER AND GLUE.
5. PIPE SHALL BE INSTALLED WITH A MINIMUM OF 4" HORIZONTAL CLEARANCE FROM ANY OTHER PIPE AND 2" VERTICAL CLEARANCE FROM ANY PIPES THAT CROSS OVER OR UNDER.

L. VALVES
1. VALVES SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND THE IRRIGATION DETAILS.
2. VALVE BOXES SHALL BE INSTALLED FLUSH WITH THE GRADE, WITH CLEAN PEA GRAVEL LOCATED BELOW THE VALVE AS NOTED ON THE DETAILS. LOCATE BOXES WITHIN 12 TO 24" OF SIDEWALKS OR LANDSCAPE EDGES. WITH TOPS OF BOXES 1" ABOVE FINISH GRADE IN TURF, AND 3" ABOVE FINISH GRADE IN SHRUB AREAS (TO AVOID BEING COVERED BY MULCH).
3. EACH VALVE BOX COVER SHALL BE HEAT-BRANDED WITH THE CONTROLLER STATION NUMBER.
4. DO NOT INSTALL MORE THAN TWO VALVES IN A JUMBO BOX.

M. DRIP IRRIGATION EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND THE IRRIGATION DETAILS.
1. SUBSURFACE DRIP LINES SHALL BE BURIED NO MORE THAN 2" BELOW FINISH GRADE.
2. DRIP LINES MOUNTED ON GRADE SHALL BE LOCATED BENEATH LANDSCAPE FABRIC, AND SECURED IN PLACE WITH WIRE STAPLES AT A MAXIMUM OF 24"-36" ON CENTER.

N. SPRAY, ROTOR, AND BUBBLER HEADS:
1. ALL SPRAY AND ROTOR HEAD LOCATIONS SHALL BE STAKED, FLAGGED AND/OR OTHERWISE CLEARLY MARKED ON THE GROUND PRIOR TO INSTALLATION. SPRINKLER HEAD STAKING SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE INSTALLATION.
2. ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12 INCH MINIMUM LENGTH OF $\frac{1}{2}$ INCH FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #795 SOLVENT AND #P-70 PRIMER. ALL ROTORS SHALL BE CONNECTED TO LATERAL LINES WITH PRE-MANUFACTURED SWING JOINTS.
3. ALL ROTOR, SPRAY AND BUBBLER HEADS SHALL BE SET PERPENDICULAR AND FLUSH TO FINISH GRADE AND WITH A CLEARANCE OF FOUR INCHES (MINIMUM) FROM THE EDGE OF ANY BUILDINGS, WALLS, BOULDERS, AND HARDSCAPE, WITH A CLEARANCE OF TWELVE INCHES (MINIMUM) FROM BUILDINGS, UNLESS OTHERWISE SPECIFIED.
4. ALL ROTOR, SPRRAY AND BUBBLER HEADS AND VALVES SHALL BE FLUSHED AND ADJUSTED FOR OPTIMUM COVERAGE WITH MINIMUM OVERSPRAY ON WALKS, STREETS, WALLS, ETC.
5. LATERAL PIPE TO TREE STREAM BUBBLER HEADS IS OMITTED FOR GRAPHIC CLARITY. CONNECT TREE BUBBLER HEADS TO VALVES AS SHOWN WITH CLASS 200 PVC PIPE SIZED TO ALLOW A MAXIMUM FLOW VELOCITY OF 5 FEET PER SECOND

O. AUTOMATIC CONTROLLER:
1. INSTALL THE CONTROLLER AT THE LOCATION INDICATED BY THE OWNER. INSTALL CONTROLLER WITH A BACKUP BATTERY AS RECOMMENDED BY THE MANUFACTURER.
2. THE IRRIGATION CONTRACTOR SHALL COORDINATE 120 V.A.C. ELECTRICAL POWER TO CONTROLLER AND DEDICATE ONE (1) 20-AMP BREAKER FOR EACH CONTROLLER. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MAKE THE FINAL HOOK-UP FROM THE ELECTRICAL SOURCE TO THE CONTROLLER UNIT ONLY.
3. ALL VALVE CONTROL WIRE SHALL BE AWG 14 TYPE UF, 600 VOLT TEST, DIRECT BURIAL. NO SPLICES SHALL BE ALLOWED EXCEPT AT VALVES AND CONTROLLER. WHERE SPLICES MAY BE NECESSARY DUE TO EXCESSIVELY LONG WIRE RUNS, THE CONTRACTOR SHALL MAKE ALL SPLICES IN 6" ROUND VALVE BOXES WITH 3M'S "DBY-DIRECT BURIAL SPLICE KIT". THE CONTRACTOR SHALL LABEL ALL WIRES WITH WATERPROOF TAGS AND MARKERS AT ALL SPLICES AND VALVE MANIFOLDS, AND SHALL LEAVE A 24" COIL OF EXCESS WIRE AT EACH CONNECTION.
4. PROVIDE #10 COMMON WIRE, DIRECT BURIAL, TO ALL REMOTE CONTROL VALVES.
5. CONNECT ALL DIRECT BURIAL WIRES TO VALVES USING 3M'S "DBY-DIRECT BURIAL SPLICE KIT" (UNLESS OTHERWISE SPECIFIED).
6. PROVIDE THREE ADDITIONAL IRRIGATION CONTROL WIRES ALONG EACH BRANCH OF MAINLINE FOR FUTURE EXPANSION. STUB ADDITIONAL CONTROL WIRES INTO BACK OF IRRIGATION CONTROLLERS.
7. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL CONTROL WIRE SLEEVES AND PIPE SLEEVES UNDER PAVED AREAS PRIOR TO PAVING - SEE SLEEVING NOTES.

P. INSTALL THE RAIN SENSOR IN THE VICINITY OF THE CONTROLLER, AND COORDINATE LOCATION WITH THE OWNER. PROVIDE MINIMUM 5' CLEARANCE FROM OTHER OUTDOOR EQUIPMENT, FREE AND CLEAR OF ANY TREE CANOPY OR OTHER OVERHEAD OBSTRUCTIONS, AND ABOVE THE HEIGHT OF THE SPRINKLER COVERAGE. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THE RAIN SENSOR IS PLACED IN A LOCATION WHERE IT CAN RECEIVE ADEQUATE RAINFALL WITHOUT OBSTRUCTIONS. IF IT IS PLACED IN AN INADEQUATE LOCATION, THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO RELOCATE IT AT NO ADDITIONAL COST TO THE OWNER.

Q. THE PUMP SHALL NOT BE STARTED UNTIL A REPRESENTATIVE OF THE PUMP MANUFACTURER INSPECTS THE INSTALLATION AND START-UP. ANY DAMAGE TO THE PUMP WITHOUT A WRITTEN REPORT FROM THE MANUFACTURER'S REPRESENTATIVE SHALL, AT THE OWNER'S OPTION, BE IMMEDIATELY REPAIRED OR REPLACED AT THE CONTRACTOR'S OWN COST.

R. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

S. QUALITY CONTROL
1. PERFORM COVERAGE TESTS AFTER IRRIGATION SYSTEM IS COMPLETED, BUT PRIOR TO ANY PLANTING AND PERFORM TESTING IN THE PRESENCE OF THE IRRIGATION DESIGNER AND THE CONSTRUCTION MANAGER.
2. TEST SYSTEM TO ASSURE THAT ALL LAWN AND PLANTING AREAS ARE WATERED COMPLETELY AND UNIFORMLY.
3. MAKE ALL NECESSARY ADJUSTMENTS TO PROVIDE COMPLETE COVERAGE, INCLUDING REALIGNMENT OF HEADS AND REPLACEMENT OF NOZZLES.

T. CLEAN UP
1. DURING IRRIGATION EXCAVATION AND INSTALLATION, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION
2. DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.

U. INSPECTION AND ACCEPTANCE
1. UPON COMPLETION OF THE WORK, THE IRRIGATION CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE IRRIGATION CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
2. WHEN THE INSPECTED WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.
3. THE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.
4. CONTROLLER CHART: THE IRRIGATION CONTRACTOR SHALL PROVIDE A 11" X 17" COLOR-CODED, LAMINATED COPY OF THE IRRIGATION LAYOUT AND PLACE IT IN THE CONTROLLER'S COVER. THE CONTROLLER CHART SHALL CLEARLY DELINEATE THE AREAS COVERED BY EACH VALVE, USING A SEPARATE COLOR FOR EACH ZONE.
5. TURN THE FOLLOWING ITEMS IN TO THE OWNER UPON COMPLETION OF THE INSTALLATION:
a. QUICK COUPLER KEYS (2)
b. CONTROLLER MANUAL (1)
c. CONTROLLER KEYS (2)
d. A MINIMUM OF (2) COPIES OF RECORD DRAWINGS. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.

V. REFER TO THE PLANTING SPECIFICATIONS FOR ADDITIONAL CONDITIONS OF FINAL ACCEPTANCE AND START OF THE MAINTENANCE PERIOD.

W. WARRANTY
1. THE IRRIGATION SYSTEM SUPPLIED AND INSTALLED SHALL BE WARRANTED (LABOR AND MATERIALS) TO REMAIN OPERATIONAL FOR A PERIOD OF 12 MONTHS AFTER THE DATE OF FINAL ACCEPTANCE. DURING THIS PERIOD, THE CONTRACTOR SHALL ALSO REPAIR ANY SETTLEMENT OF THE IRRIGATION TRENCHES.
2. BY THE END OF THE WARRANTY PERIOD, ANY IRRIGATION PART THAT IS EITHER NON-OPERATIONAL OR THAT IS OPERATING BELOW STANDARDS AS DETERMINED BY THE OWNER, SHALL BE REMOVED FROM THE SITE AND SHALL BE REPLACED. REPLACEMENTS SHALL BE OF THE SAME KIND AS SPECIFIED IN THE IRRIGATION LEGEND, AND SHALL BE INSTALLED AS ORIGINALLY SPECIFIED.
3. IRRIGATION PARTS DAMAGED OR IMPAIRED DUE TO ACTS OF GOD, VANDALISM, AND/OR THE OWNER'S IMPROPER MAINTENANCE SHALL NOT BE COVERED BY THIS WARRANTY.

X. SHOULD THE PERMITTING JURISDICTION REQUIRE AN IRRIGATION AUDIT, THE IRRIGATION CONTRACTOR SHALL RETAIN THE SERVICES OF A THIRD-PARTY CERTIFIED LANDSCAPE IRRIGATION AUDITOR, AT NO ADDITIONAL COST TO THE OWNER.

ZONE PRESSURE LOSS CHART

ZONE #	ZONE GPM	ZONE TYPE	PSI LOSS AT WATER METER	PSI LOSS AT BACKFLOW	PSI LOSS AT MASTER VALVE	PSI LOSS AT MAINLINE	PSI LOSS AT ZONE VALVE	PSI LOSS AT LATERAL PIPE	PSI LOSS AT HEAD / NOZZLE	TOTAL PSI REQUIRED	RESIDUAL PSI
1	3	BUBBLER	0.3	11.0	3.0	0.20	2.0	3.5	25.0	45.0	20.0
2	4	DRIP	0.5	11.0	3.0	0.35	3.0	3.5	30.0	51.35	13.65
3	3.5	DRIP	0.5	11.0	3.0	0.35	3.0	3.5	30.0	51.35	13.65
4	10.8	SPRAY	1.9	11.0	3.0	3.14	2.0	3.5	25.0	49.54	15.46
5	3.5	DRIP	0.5	11.0	3.0	0.35	3.0	3.5	30.0	51.35	13.65
6	3.5	DRIP	0.5	11.0	3.0	0.35	3.0	3.5	30.0	51.35	13.65
7	10.8	SPRAY	1.9	11.0	3.0	3.14	2.0	3.5	25.0	49.54	15.46
8	4	DRIP	0.5	11.0	3.0	0.35	3.0	3.5	30.0	51.35	13.65
9	2	BUBBLER	0.2	11.0	3.0	0.10	2.0	3.5	25.0	45.0	20.0
10	3	DRIP	0.3	11.0	3.0	0.20	3.0	3.5	30.0	51.0	14.0
11	1	BUBBLER	0.1	11.0	3.0	0.03	2.0	3.5	25.0	44.63	20.37
12	2	DRIP	0.2	11.0	3.0	0.10	3.0	3.5	30.0	50.80	14.20

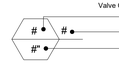
IRRIGATION_LEGEND

SYMBOL	MANUFACTURER/MODEL
●	RAINBIRD 1806-SAM-PRS SERIES 12H POP UP SPRAY HEAD WITH U-SERIES NOZZLE AT 25 PSI.
▪	RAINBIRD 1806-SAM-PRS SERIES POP UP SPRAY HEADS WITH ADAPTER AND RAINBIRD #1402 SERIES BUBBLER NOZZLES@ 25psi. (TWO PER TREE) SEE INSTALLATION NOTE #N-5 REGARDING TREE BUBBLER LATERAL PIPE
⊕	RAINBIRD XCZ-100-PRB-COM / 150-PRB-COM SERIES AUTOMATIC DRIP VALVE ASSEMBLY WITH 40 PSI PRESSURE REGULATOR XCZ-100-PRB-COM - 1" BALL VALVE WITH 1" PESB VALVE AND 1" PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. 0.3GPM TO 20GPM. XCZ-150-PRB-LCDR - 1-1/2" PESB-R SCRUBBER GLOBE VALVE WITH SINGLE 1-1/2" PRESSURE REGULATING (40PSI) QUICK-CHECK BASKET FILTERS.
⊕	FLOW RANGE: 15-62GPM.
	RAINBIRD PEB SERIES ELECTRIC REMOTE CONTROL, "TREE BUBBLER ZONE" VALVE SEE INSTALLATION NOTE #N-5 REGARDING TREE BUBBLER LATERAL PIPE AREA TO RECEIVE DRIPLINE
	RAINBIRD XFS-CV-06-12 SERIES DRIP TUBE IN SHRUB BED INSTALLED AT 2" DEPTH REFERENCE LANDSCAPE PLAN FOR SHRUB PLACEMENT
	ZURN / WILKINS 375XLB SERIES REDUCED PRESSURE TYPE BACKFLOW PREVENTOR INSTALLED PER CITY CODE WITH SAME SIZE BRONZE BALL VALVE INSTALLED ON THE UP-STREAM SIDE. MOUNTED IN STRONGBOX SMOOTH TOUCH ENCLOSURE.
	LASCO "V101N" SERIES SCH. 80 PVC TRUE UNION BALL VALVE, MAINLINE SIZE
M	IRRIGATION WATER METER AND TAP, SIZE AS NOTED ON THE PLAN
⊗	RAINBIRD 33-DNP QUICK COUPLING VALVE WITH 3/4" PVC BALL VALVE
C	RAINBIRD ESP12LXMEF SERIES AUTOMATIC WALL MOUNT CONTROLLER WITH ONE ESPLXMSM8 STATION MODULE AND WR2-RFC RAIN / FREEZE SENSOR LOCATE SENSOR AS FIELD DIRECTED BY THE LANDSCAPE ARCHITECT
	"MASTER" ELECTRIC VALVE (SAME SIZE AS METER) WITH RAINBIRD FLOW SENSOR MODEL #FS100B SERIES
BP	Rain Bird D Series "VERTICAL PUMP STATION" 3hp Providing 15 gpm @ 20psi boost. BOOST ON DISCHARGE SIDE OF PUMP SHALL BE 55 PSI MINIMUM.
	IRRIGATION LATERAL LINE: CLASS 200
	IRRIGATION MAINLINE: SCHEDULE 40 PVC
	IRRIGATION SLEEVE, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED
	IRRIGATION SLEEVES, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED

NOTE: *** ALL PIPE TO BE SIZED SUCH THAT FLOWS WILL NOT EXCEED VELOCITY OF 5 FPS ***

IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.

VALVE KEY



CRITICAL ANALYSIS

1. LOSS AT 1" SERVICE LINE: 22 / 100'	2.0 PSI
2. LOSS AT 1" WATER STUB OUT FOR 10.8 GPM:	1.9 PSI
3. LOSS AT 3/4" BACKFLOW PREVENTOR	11.0 PSI
4. LOSS AT 1" MAINLINE	2.7 PSI
5. LOSS AT 1" ELECTRIC VALVE	2.0 PSI
6. LOSS AT SECTION LATERAL PVC PIPE	3.5 PSI
7. LOSS AT MASTER VALVE	3.0 PSI
8. LOSS AT SPRAY HEAD NOZZLE	25 PSI
TOTAL PRESSURE LOSS	51.1 PSI

ON SITE STATIC PRESSURE IS 35 PSI
BOOSTER PUMP TO SUPPLY 20 PSI BOOST

CALIFORNIA WATER EFFICIENT LANDSCAPE WORKSHEET

REFEREN

RAIN BIRD®

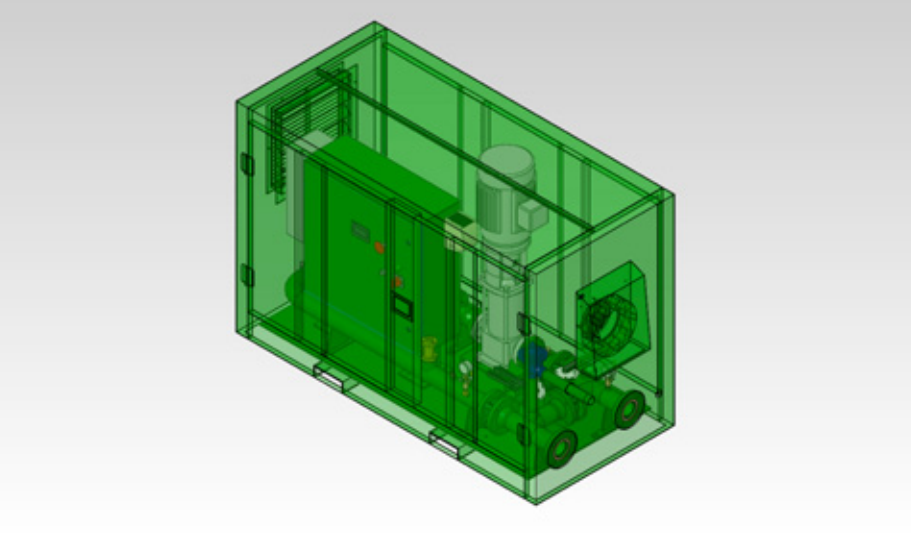
Pump Tech Spec

Vertical Multistage – 1 Pump – D Series

Low to Medium Flow Pump Station

3 to 15 HP; Up to 115 psi (7.9 bar); Up to 200 gpm (12.6 lps, 45.4 m³/h)

Rain Bird's single pump, Vertical Multi-Stage station in a powder-coated green enclosure is designed for small to midsize boost, flooded suction and suction lift applications such as city parks and buildings, sports fields, commercial buildings, small home owner's associations and large residential sites. Its small footprint, durable multistage pump configuration, and choice of options make it an ideal choice for Turf irrigation applications with flows up to 200 gpm (12.6 lps, 45.4 m³/h).



At-A-Glance Description

- **Reliability** – Integrated Plug-n-Pump provide single source responsibility for the entire pumping system insuring trouble-free installation and operation.
- **Energy efficient** – Variable Frequency Drive (VFD) maintains constant pressure at varying flow demand.
- **Inlet and discharge isolation valves** for easier mechanical serviceability.
- **Easy Start-up** – All stations are water-tested at the factory prior to shipment.

Standard Features

- **Plumbing Configurations**
  - Inlet and Discharge Piping on the same side of the enclosure (as shown)
- **Mechanical Features**
  - Inlet Butterfly Isolation Valve
  - Discharge Butterfly Isolation Valve
  - Silent Check Valve
- **Pressure / Flow**
  - Stainless Steel Pressure Transducer
  - Flow Switch
- **Enclosures / External Connections**
  - Polyester Powder Coated Steel Enclosure
  - Polyester Powder-Coated Steel Deck and Piping
  - Re-Prime Piping (Suction Lift only)
  - Thermostat and Fan on Mechanical Enclosure
- **Pump Control**
  - Pump Start Relay
  - VFD - Variable Frequency Drive for Control of Pressure
- **Display**
  - Monochrome Touch Screen Display

Optional Features

- **Plumbing Configurations**
  - Inlet and Discharge Piping through the deck (bottom)
  - Mechanical Feature
  - Pressure Relief Valve
- **Pressure / Flow**
  - Paddle Wheel Flow Meter
- **Enclosures**
  - Environmental Package: includes heater and insulation/sound dampening

Accessories

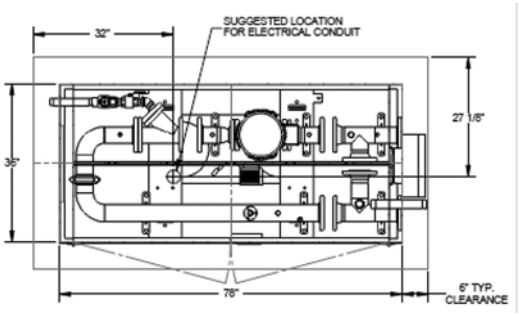
- **Discharge Filter**
  - Wye Strainer (1/8" openings)
- **Intake Filters**
  - HDPE Suction Intake Piping
  - Foot Valve
  - Intake Screen
- **External Connections**
  - Bladder Tank
  - Zee Pipe
- **Lake Level Control**
  - Lake Level Shut Off (Float)

Vertical Multistage – 1 Pump – Green Enclosure

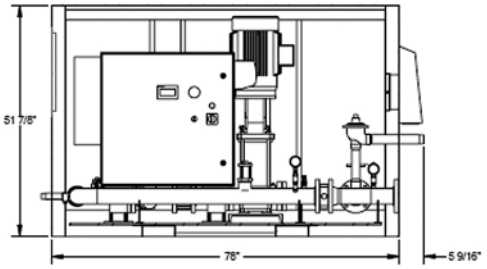
Motor Size	3 HP	5 HP	7 ½ HP	10 HP	15 HP
Pump Type	Vertical Multi-Stage				
Power Requirement	480/60/3 V/HZ/PH				
	208-230/60/3 V/HZ/PH				
	208-230/60/1 V/HZ/PH				
Inlet Pressure Requirement	Suction Lift or Boost Applications				
Outlet Pressure	Up to 115 psi (7.9 bar) (1)				
Outlet Flow	Up to 200 gpm (12.6 lps, 45.4 m³/h) (1)				
Concrete Slab Dimensions (min)	90" x 48" (229 cm x 122 cm)				
Platform Skid Dimensions (min)	78" x 36" (198 cm x 91 cm)				
Inlet / Discharge Size	4" Standard - 2", 3", and 6" adapters available				
Cabinet Height (from slab)	52" (132 cm)				

(1) Refer to pump performance curves, provided upon request from pumps@rainbird.com

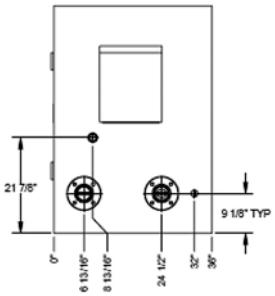
Details



Plan View



Profile View



Side View

Rain Bird Corporation - Pumps Division
6991 E. Southpoint Road
Tucson, AZ 85756
Applications Group: (520) 806-5620
Fax: (520) 741-6191
E-mail: pumps@rainbird.com

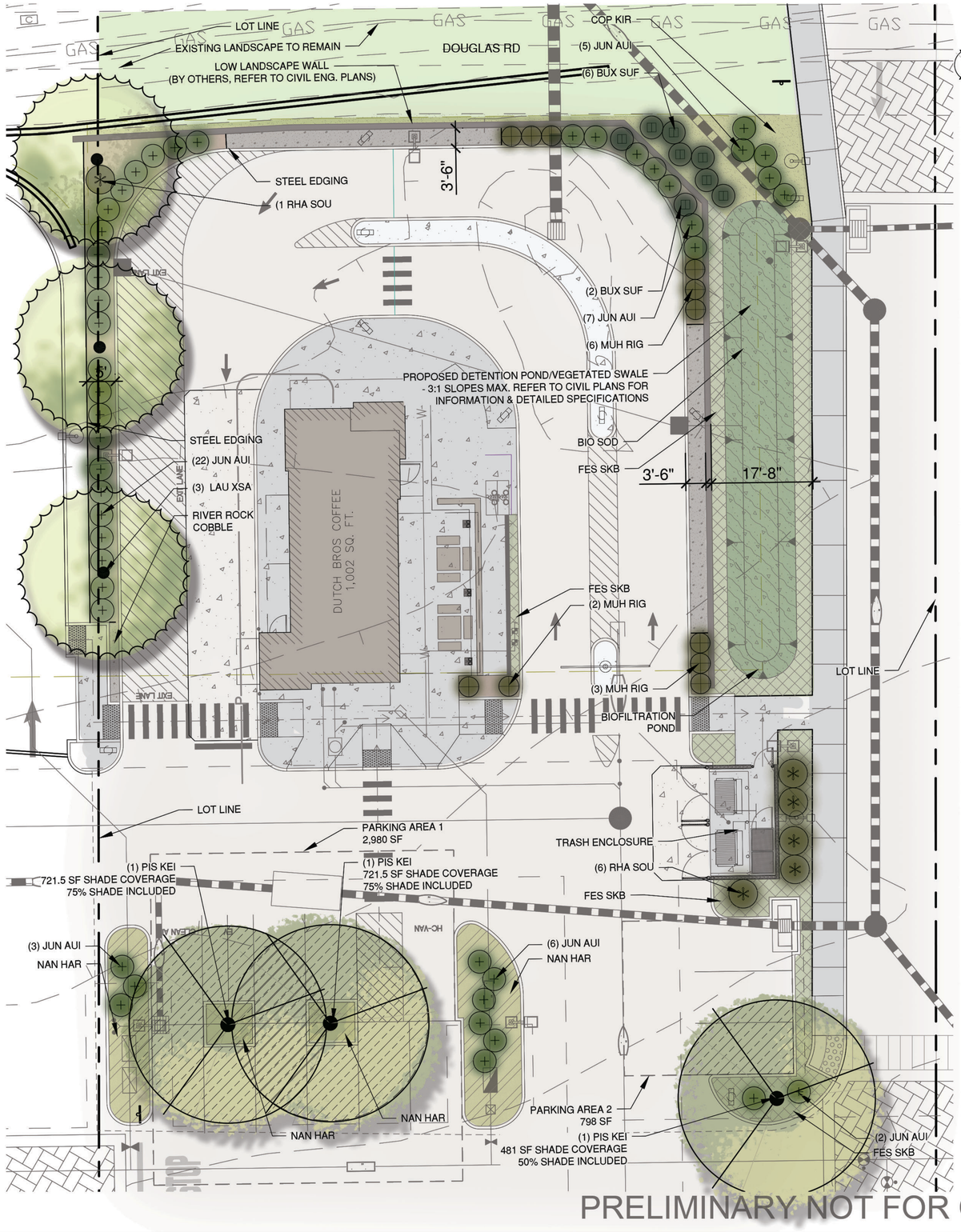
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p/n SMEFPTSVMS1GR Rev A

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DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004



PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE	WUCOLS	CAL	MATURE SIZE (W`XH`)	QTY	REMARKS
	LAU XSA	LAURUS X 'SARATOGA' SARATOGA HYBRID LAUREL	24" BOX	L	2" CAL	30` X 40`	3	
	PIS KEI	PISTACIA CHINENSIS 'KEITH DAVEY' KEITH DAVEY CHINESE PISTACHE	24" BOX	L	2" CAL	40` X 40`	3	

SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	WUCOLS	MATURE SIZE (W`XH`)	QTY
	BUX SUF	BUXUS SEMPERVIRENS 'SUFFRUTICOSA' SUFFRUTICOSA COMMON BOXWOOD	5 GAL	M	3X4	9
	JUN AUI	JUNIPERUS X PFITZERIANA 'AUREA IMPROVED' GOLD COAST PFITZER JUNIPER	5 GAL	L	3X4	45
	MUH RIG	MUHLENBERGIA RIGENS DEER GRASS	5 GAL	L	3X3	11
	RHA SOU	RHAPHIOLEPIS UMBELLATA 'RUTRHAPH1' TM SOUTHERN MOON YEDDA HAWTHORN	5 GAL	L	5X6	6

GROUND COVERS	CODE	BOTANICAL / COMMON NAME	SIZE	WUCOLS	MATURE SIZE (W`XH`)	SPACING	QTY	
	BIO SOD	BIOFILTRATION SOD TM DELTA BLUE GRASS	SOD	N/A	1X1		972 SF	AVAILABLE FROM DELTA BLUE GRASS
	COP KIR	COPROSMA KIRKII CREEPING MIRROR PLANT	1 GAL	L	1`X6`	48" o.c.	25	
	FES SKB	FESTUCA X 'SISKIYOU BLUE' SISKIYOU BLUE FESCUE	1 GAL	L	1X1	12" o.c.	947	
	NAN HAR	NANDINA DOMESTICA 'HARBOUR DWARF' HARBOUR DWARF HEAVENLY BAMBOO	1 GAL	L	1`X4`	36" o.c.	67	
	--	RIVER ROCK COBBLE 1 1/2" - 3" SIZE, 4" DEEP	N/A	N/A			323 SF	

LANDSCAPE CALCULATIONS

TOTAL SITE AREA:	
LANDSCAPE AREA PROVIDED:	4,145 SF
HARD SURFACE ALLOWED:	1,022 SF (25%)
HARD SURFACE PROVIDED:	402 SF
PLANT SIZE	
TOTAL TREES PROVIDED:	5
24" BOX TREES REQUIRED (25%):	1
24" BOX TREES PROPOSED:	5 (100%)
EVERGREEN TREE	
TOTAL TREES PROVIDED:	5
EVERGREEN TREES REQUIRED (30%):	1.2
EVERGREEN TREES PROVIDED:	5 (100%)

PARKING LOT SHADE CALCULATIONS

TOTAL PARKING AREA:	3,778 SF
TOTAL SHADING REQUIRED (50%):	1,889 SF
PARKING LOT AREA 1:	2,980 SF
SHADE PROVIDED:	
(1) CHINESE PISTACHE - 35' CANOPY - 75% SHADE VALUE -	721.5 SF COVERAGE
(1) CHINESE PISTACHE - 35' CANOPY - 75% SHADE VALUE -	721.5 SF COVERAGE
PARKING LOT AREA 2:	
SHADE PROVIDED:	798 SF
CHINESE PISTACHE - 35' CANOPY - 50% SHADE VALUE -	481 SF COVERAGE
TOTAL PARKING LOT SHADING PROVIDED:	1,924 SF (50.9%)

ROOT BARRIERS

THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN TEN (10) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

MULCHES

AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 3" LAYER OF HARDWOOD MULCH, NATURAL (UNDYED), IN ALL PLANTING AREAS (EXCEPT FOR TURF AREAS). ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED (SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE "GENERAL GRADING AND PLANTING NOTES" AND SPECIFICATIONS).

GENERAL PLANTING NOTES

1. BY SUBMITTING A PROPOSAL FOR THE LANDSCAPE PLANTING SCOPE OF WORK, THE CONTRACTOR CONFIRMS THAT HE HAS READ, AND WILL COMPLY WITH, THE ASSOCIATED NOTES, SPECIFICATIONS, AND DETAILS WITH THIS PROJECT, INCLUDING ALL APPLICABLE JURISDICTION REQUIREMENTS.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY THE OWNER OF ANY DISCREPANCIES.
3. THE CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY OWNER OF ANY CONFLICTS. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND THE DESIGNER DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKIGN IN THE VICINITY OF UNDERGROUND UTILITIES.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE NOTED TO REMAIN).
5. ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
   a. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES; PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUNDCOVER PATTERNS) SHALL TAKE PRECEDENCE.
   b. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IN WRITING (VIA PROPER CHANNELS).
   c. THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE REPRESENTATIVE PHOTOS OF ALL PLANTS PROPOSED FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE OWNER OR OWNER'S REPRESENTATIVE TO INSPECT, AND APPROVE OR REJECT, ALL PLANTS DELIVERED TO THE JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS.
6. THE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A HEALTHY CONDITION FOR 90 DAYS AFTER ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START OF THE MAINTENANCE PERIOD, AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD.
7. THE CONTRACTOR SHALL INSTALL WEED CONTROL LAYER PER SPECIFICATIONS IN ALL MULCH AND RIVER ROCK COBBLE AREAS.
8. NURSERY STAKES TO BE REMOVED AT THE TIME OF PLANTING.
9. SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

EVERGREEN DESIGN GROUP
(800) 680-6630
11801 Pierce Street, Suite 200
Riverside, CA 92505
www.EvergreenDesignGroup.com

PRELIMINARY NOT FOR CONSTRUCTION

Title: LANDSCAPE PLANTING PLAN

SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For: DUTCH BROS Coffee

LICENSED LANDSCAPE ARCHITECT
BRIAN REINHART LICENSE NO. 6363
8-30-22 RE-RENEWAL DATE
02-23-22 DATE
STATE OF CALIFORNIA

Scale:	Horizontal	Vertical
	1"=10'-0"	

Designed	BR	Checked	BR/RM
Drawn	BR	Approved	RM
		Date	02/23/22

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

Job Number 22015

Sheet LP-1

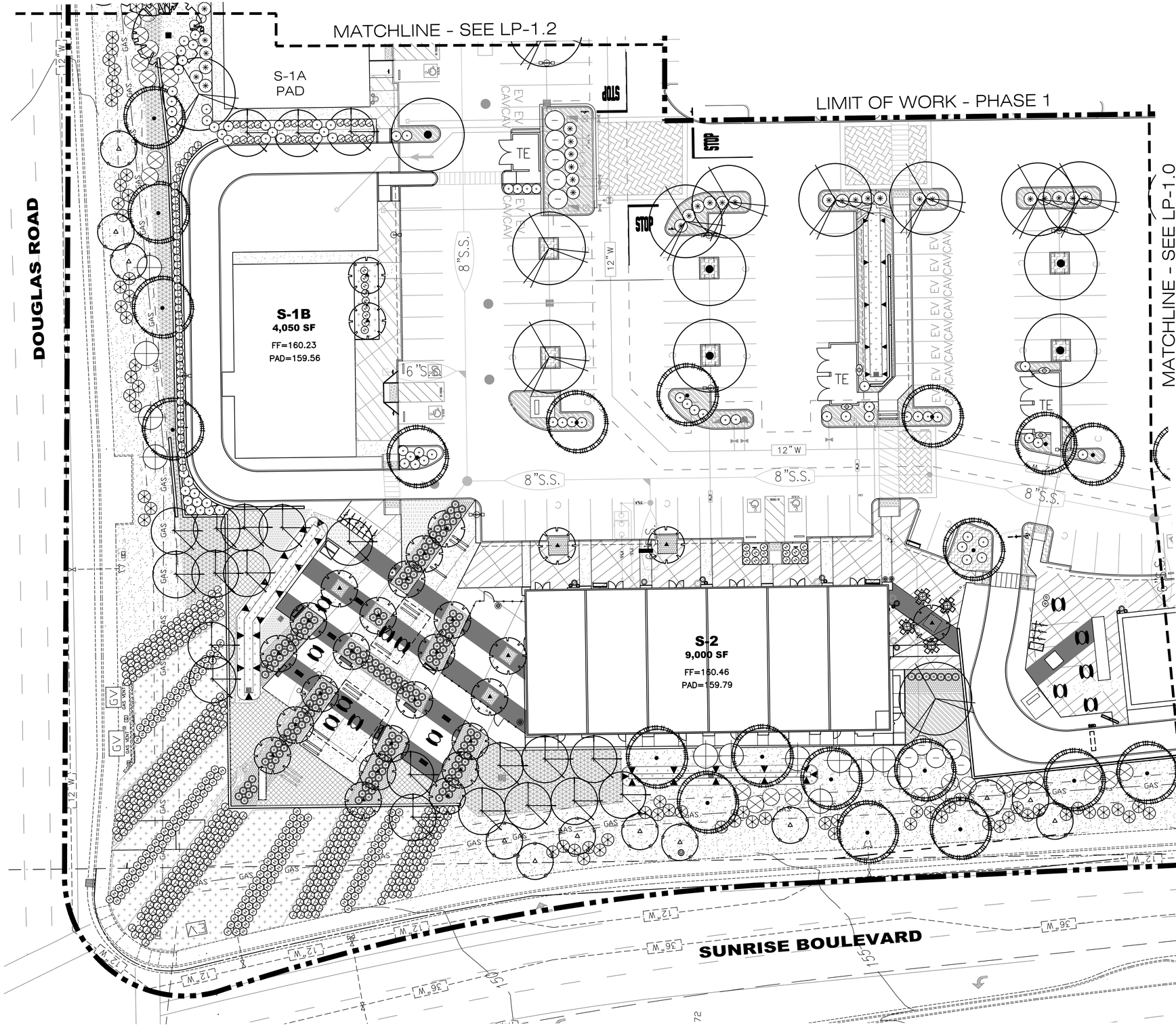
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C:\Users\blake\Dropbox (EDG)\EDG - Shared\2021\Dutch Bros\Dutch Bros - Rancho Cordova CA - Sunrise Blvd & Douglas Rd\Dutch Bros-Rancho Cordova CA-LP - 2022-02-23.dwg 1/19/2022 2:35 PM BLAKE

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PLANT MATERIAL LIST AND LEGEND

TREES

SYMBOL	BOTANICAL NAME COMMON NAME	SIZE	REMARKS	WATER USE	QUANTITY
	ACER PLATANOIDES 'CRIMSON SENTRY' CRIMSON SENTRY MAPLE	24" BOX	25'H x 15'W	MOD	41
	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	15 G	35'H x 30'W	MOD	10
	LAGERSTROEMIA INDICA X WHIT II DYNAMITE DYNAMITE CREPE MYRTLE	15 G	15'H x 12'W STANDARD	LOW	28
	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID' VANDERWOLF'S PYRAMID PINE	15 G	25'H x 12'W	LOW	5
	LAGERSTROEMIA INDICA x FAURIEI 'CATAWBA' RED--PINK CREPE MYRTLE	15 G	25'H x 20'W STANDARD	LOW	31
	LAURUS 'SARATOGA' SARATOGA SWEET BAY	24" BOX	25'H x 30'W STANDARD FORM	LOW	32
	OLEA EUROPAEA 'WILSONII' WILSON OLIVE (LOW FRUITING OLIVE)	24" BOX	25'H x30'W NATURAL	LOW	22
	PINUS HALEPENSIS ALEPPO PINE	15 G	45'H x 30'W	LOW	5
	PISTACIA CHINENSIS 'KEITH DAVEY' CHINESE PISTACHE	24" BOX	30'H x 30'W	LOW	36
	PLATANUS ACERIFOLIA 'COLUMBIA' COLUMBIA LONDON PLANE TREE	15 G	40'H x 30'W STREET TREE	MOD	5
	QUERCUS WISLIZENII INTERIOR LIVE OAK	15 G	30'H x 35'W STANDARD FORM	LOW	3

SHRUBS

SYMBOL	BOTANICAL NAME COMMON NAME	SIZE	REMARKS	WATER USE	QUANTITY
	ARBUTUS UNEDO 'COMPACTA' DWARF STRAWBERRY TREE	5 G	8'H x 8'W	LOW	30
	ARCTOSTAPHYLOS DENSIFLORA 'DR HURD' DR HURD MANZANITA	15 G	10'H x 12'W	LOW	13
	BUXUS SEMPERVIRENS 'SUFFRUTICOSA' TRUE DWARF BOXWOOD	15 G	3'H x 4'W	MOD	278
	CALLISTEMON VIMINALIS LITTLE JOHN LITTLE JOHN BOTTLEBRUSH	5 G	3'H x 3'W	LOW	227
	CISTUS X PURPUREUS PURPLE ROCK ROSE	5 G	3'H x 5'W	LOW	137
	GREVILLEA CANBERRA HUMMINGBIRD BUSH	5 G	6' X 8'	LOW	60
	JUNIPERUS X PFITZERIANA 'AUREA IMPROVED' GOLD COAST JUNIPER	5 G	3'H x 4'W	LOW	140
	RHAPHIOLEPIS UMBELLATA 'RUTRAPH1' SOUTHERN MOON YEDDA HAWTHORN	5 G	5'H x 6'W	LOW	142
	DIETES 'ORANGE DROP' ORANGE DROP FORTNIGHT LILY	1 G	3'H x 3'W	LOW	601
	RHAMNUS CALIFORNIA EVE CASE EVE CASE COFFEEBERRY	5 G	6'H x 8'W	LOW	66
	FICUS PUMILA CREEPING FIG	5 G	CLINING VINE	MOD	4

GROUNDCOVERS

SYMBOL	BOTANICAL NAME COMMON NAME	SIZE	REMARKS	WATER USE	SPACING
	BOUTELOUA GRACILIS 'BLOND AMBITION' BLUE GRAMA GRASS	5 G	2'H x 2'W	LOW	36" O.C.
	COPROSMA KIRKII CREEPING COPROSMA	1 G	1'H x 6'W	LOW	48" O.C.
	FESTUCA GLAUCA 'SISKIYOU BLUE' BLUE FESCUE	1 G	1'H x 1'W	LOW	12" O.C.
	NANDINA DOMESTICA HARBOR DWARF DWARF HEAVENLY BAMBOO	1 G	1' X 4'	LOW	36" O.C.
	ROSA FLOWER CARPET 'RED' RED FLOWER CARPET ROSE	2 G	1.5' x 3'	MOD	36" O.C.
	ROSMARINUS O. PROSTRATUS PROSTRATE ROSEMARY	1 G	1' X 8'	LOW	48" O.C.
	TRACHELOSPERMUM JASMINOIDES STAR JASMINE	1 G	1.5"H x 4'W	MOD	36" O.C.
	TEUCRIUM CHAMAEDRYS X LUCIDRYS 'PROSTRATA' DWARF GERMANDER	1 G	6"H x 3'W	LOW	36" O.C
	BIOFILTRATION SOD AVAILABLE FROM DELTA BLUEGRASS	SOD	--	MOD	SODDED

DENOTES ROOT BARRIER ADJACENT TO PAVEMENT WHERE TREE TRUNK IS 10'0" OR LESS. SEE DETAIL LP2.0. DEEP ROOT UB24-2

WATER EFFICIENT LANDSCAPE ORDINANCE:
"I have complied with the criteria of the Water Efficient Landscape Ordinance and applied such criteria for the efficient use of water in the irrigation design plan."

Applicant Signature	License #	Date
	2956	4.15.20

SCALE: 1" = 20'-0"
0' 20' 80'
10' 40'

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JOB NO. : RSC.17034

REVISIONS	DATE
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△	
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PROJECT:

ANATOLIA RETAIL PHASE 1

SUNRISE BLVD.
RANCHO CORDOVA,CA

CLIENT:

RSC ENGINEERING
ROSEVILLE, CA

ISSUE		DATE
1	1ST PC SUBMITTAL	11/13/17
2	2ND PC SUBMITTAL	3/12/18
3	3RD SUBMITTTAL	5/2/18
4	4TH SUBMITTAL	5/17/18
5	5TH SUBMITTAL	6/14/18
6	6TH SUBMITTAL	4/15/20
7	7TH SUBMITTAL	6/05/20
8	8TH SUBMITTAL	8/21/20
9		
10		

REGISTERED LANDSCAPE ARCHITECT
STEVEN C. FUHRMAN
No. 2956
Signature
10-31-21
Re-Newal Date
8.21.2020
Date
STATE OF CALIFORNIA

DRAWN : SCF
CHECKED : SCF
SCALE: : 1" = 20'0"

SHEET TITLE:

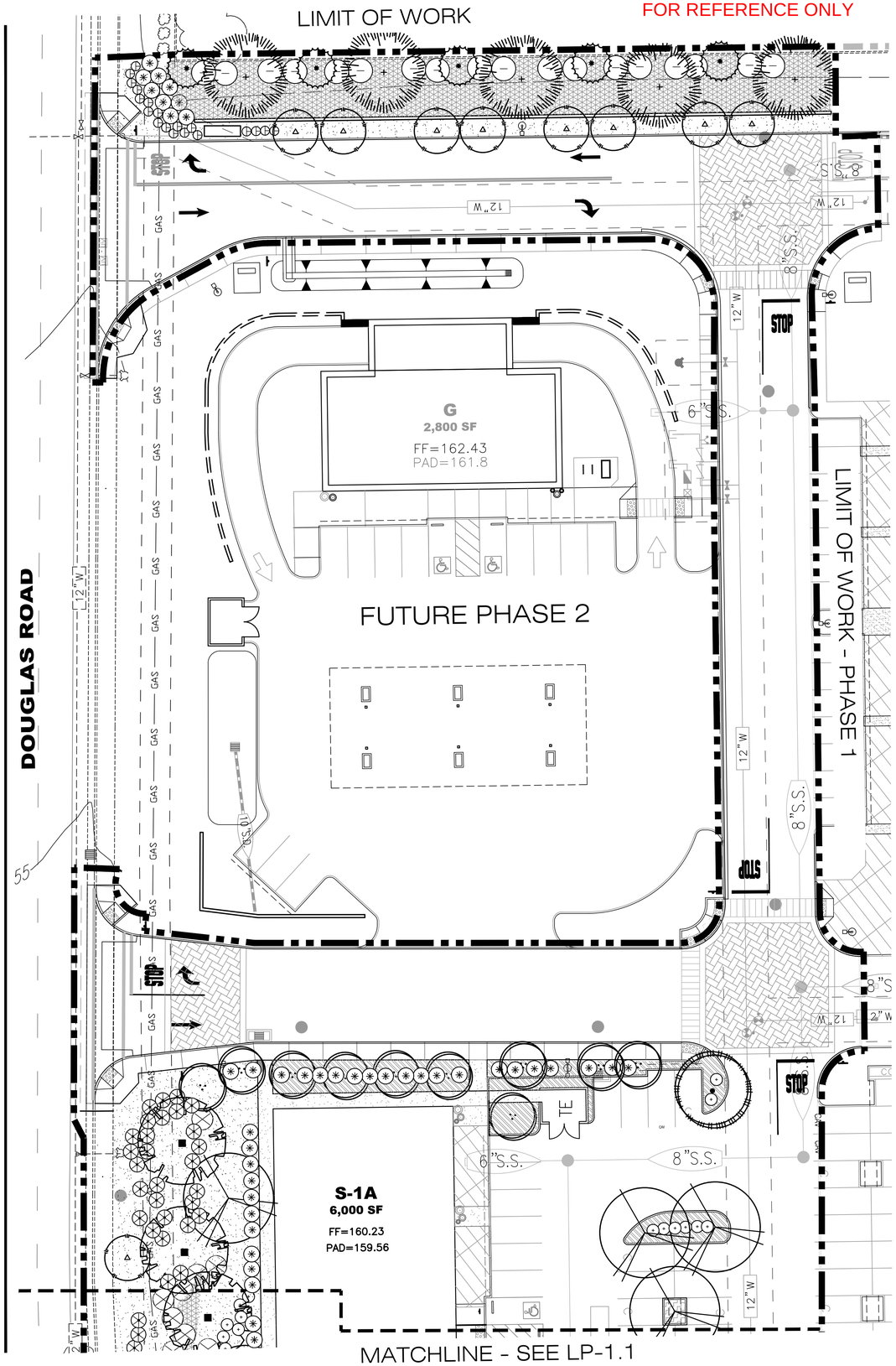
LANDSCAPE PLANTING PLAN

SHEET

LP-1.1

14 OF 16 SHEETS

OVERALL DEVELOPMENT LANDSCAPING PLANS
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FUTURE PHASE 2

GENERAL PLANTING NOTES

1. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION.
2. ALL TREES SHALL BE TAGGED AND/OR APPROVED BY OWNER & LANDSCAPE ARCHITECT. NURSERY SOURCES SHALL BE AT OWNER/LANDSCAPE ARCHITECT'S DISCRETION.
3. ALL SHRUBS AND GROUND COVER AREAS SHALL BE TOP DRESSED WITH A THREE (3") INCH LAYER "SHREDDED" CEDAR BARK PER PLANS AND SPECIFICATIONS.
4. ALL TREES (EXCEPT IN TURF AREAS), SHRUBS AND GROUND COVERS (INCLUDING THOSE ON SLOPES) SHALL HAVE WATERING BASINS BUILT UP AT LEAST TWO (2) TIMES THE DIAMETER OF THE ROOTBALL. TREE AND SHRUB BASINS SHALL BE A MINIMUM OF THREE (3") INCHES HIGH. GROUND COVER BASINS SHALL BE A MINIMUM OF TWO (2") INCHES HIGH.
5. ALL PLANT MATERIALS SHALL BE IMMEDIATELY "HAND" WATERED AFTER PLANTING AND CONTINUALLY MONITORED AND SUPPLEMENTALLY "HAND" WATERED DURING THE CONSTRUCTION AND CONTRACT MAINTENANCE PHASES AS NEEDED.
6. SUBSTITUTION OF PLANT MATERIALS WILL NOT BE ACCEPTABLE UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
7. ALL PLANT MATERIALS DELIVERED TO THE SITE MUST HAVE AT LEAST ONE OF EACH PLANT TYPE TAGGED WITH THE GENUS AND SPECIES CLEARLY MARKED. PLANTS OF THE SAME GENUS TYPE WITH DIFFERENT SPECIES TYPE WITH DIFFERENT COLOR OR SPECIES VARIATION MUST HAVE ALL OF EACH DIFFERENT SPECIES CLEARLY TAGGED.
8. ALL PLANT HOLES SHALL BE DUG TO A MINIMUM OF TWO (2) TIMES THE PLANT CONTAINER WIDTH (WIDTH ONLY, NOT DEPTH) AND ALL VERTICAL SIDES IN THE HOLES SHALL BE SHOVEL SCORED. IN NO CASE SHALL SMOOTHLY EXCAVATED SIDES BE ALLOWED FOR PLANTING.
9. PRIOR TO PLANTING OF ANY MATERIALS, COMPACTED SOILS SHALL BE TRANSFORMED INTO A FRIABLE CONDITION. ON ENGINEERED SLOPES, ONLY AMENDED PLANTING HOLES NEED TO MEET THIS REQUIREMENT. "FRIABLE" MEANS A SOIL CONDITION THAT IS EASILY CRUMBLED OR LOOSELY COMPACTED DOWN TO A MINIMUM PLANTING DEPTH PER PLANTING MATERIAL WHEREBY THE ROOT STRUCTURE OR NEWLY PLANTED MATERIAL WILL BE ALLOWED TO SPREAD UNIMPEDED.
10. PREPARE ALL PLANTING AREAS WITH FOUR (4) CUBIC YARDS/1,000 S.F. OF NITROLIZED ORGANIC SOIL CONDITIONER. PROVIDE 200 LBS./1,000 S.F. OF GRO-POWER 5-3-1 FERTILIZER. ROTOTILL EVENLY TO A DEPTH OF SIX (6") INCHES INTO EXISTING SOIL.
11. PROVIDE SOILS FERTILITY TEST, AS PER SPECIFICATIONS, TO LANDSCAPE ARCHITECT PRIOR TO COMMENCING WITH WORK. PREPARE ALL PLANTING AREAS WITH THE MINIMUM OF SOIL CONDITIONER AND FERTILIZER AS STATED IN NOTE #10 ABOVE, OR AS PER RECOMMENDATIONS OF SOILS FERTILITY TEST, WHICHEVER IS GREATER. ROTOTILL EVENLY TO A DEPTH OF SIX (6") INCHES INTO EXISTING SOIL.
12. IF ANY PORTION OF THE SITE IS LIME TREATED, THE LANDSCAPE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING. DO NOT PROCEED WITH ANY WORK IN LIME TREATED SOIL. TYPICALLY, LIME TREATED SOILS ABOVE 1% RESULT IN PH VALUES AND COMPACTION THAT ARE DELETERIOUS TO PLANT MATERIAL, EVEN WITH AGGRESSIVE AMENDMENTS AND CONDITIONERS. THESE LIME TREATED SOILS MUST BE REMOVED AND REPLACED WITH IMPORT SOILS OF SUITABLE CHEMISTRY AND COMPATIBLE TEXTURE. THE LANDSCAPE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK IN LIME TREATED AREAS UNTIL A RESOLUTION IS PROVIDED IN WRITING.
13. ALL LANDSCAPE BERMS ARE TO BE GRADED SIX (6") INCHES HIGHER THAN THE HIGHEST CONTOUR SHOWN ON PLANS, TYPICAL.
14. ALL LANDSCAPE AREAS WITH A SLOPE OF TWO AND A HALF TO ONE (2-1/2:1) OR GREATER MUST HAVE JUTE NETTING INSTALLED FOR EROSION CONTROL.
15. SHRUB AND GROUND COVER AREAS SHALL BE TREATED WITH CHIPCO RONSTAR 'G' PRE-EMERGENT HERBICIDE. PROVIDE PER MANUFACTURER'S SPECIFICATIONS.

WATER EFFICIENT LANDSCAPE ORDINANCE:
"I have complied with the criteria of the Water Efficient Landscape Ordinance and applied such criteria for the efficient use of water in the irrigation design plan."

Applicant Signature	License #	Date
	2956	4.15.20

SCALE: 1" = 20' - 0"
0' 20' 80'
10' 40'

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JOB NO. : RSC.17034

REVISIONS	DATE
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PROJECT:

ANATOLIA RETAIL PHASE 1

SUNRISE BLVD.
RANCHO CORDOVA,CA

CLIENT:

RSC ENGINEERING
ROSEVILLE, CA

ISSUE		DATE
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6	6TH SUBMITTAL	4/15/20
7	7TH SUBMITTAL	6/05/20
8	8TH SUBMITTAL	8/21/20
9		
10		

REGISTERED LANDSCAPE ARCHITECT
STEVEN C. FUHRMAN
No. 2956
10-31-21
Renewal Date
8.21.2020.
Date
STATE OF CALIFORNIA

DRAWN : SCF
CHECKED : SCF
SCALE: : 1" = 20'0"

SHEET TITLE:

LANDSCAPE PLANTING PLAN

SHEET

LP-1.2

15 OF 16 SHEETS

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KD Anderson & Associates, Inc.
Transportation Engineers

November 30, 2021

Mr. Russ Orsi
Dutch Bros.
Construction Manager
916-765-7270
russ.orsi@dutchbros.com

RE: TRAFFIC OPERATIONAL ASSESSMENT FOR CA-3004 DUTCH BROTHERS RESTAURANT ON DOUGLAS ROAD, RANCHO CORDOVA, CALIFORNIA.

Dear Mr. Orsi:

Thank you for contacting our firm regarding the Dutch Brothers coffee kiosk proposed in the approved Anatolia Marketplace shopping center on Douglas Road in Rancho Cordova. As we are aware the project is a 950 sf restaurant with dual entry drive-thru aisles that would replace building S-1A within the approved center.

City of Rancho Cordova staff has indicated that an initial assessment of project trip generation is needed in order to determine whether the Dutch Brothers restaurant is consistent with the assumptions for site development made when the Anatolia Marketplace was approved. An assessment of drive-thru queueing has also been requested. This letter provides the information requested by the City.

Previous Assumptions for Lot 2

Year 2021 Assessment of Anatolia Marketplace. The project site was included in a recent assessment of the feasibility of left turn access from Douglas Road into Anatolia Marketplace[1]. The approved site plan is noted in Figure 1. Building S-1A was assumed to be occupied by 5,000 sf of general retail uses. Building S-1A trip generation was estimated from rates presented in the Institute of Transportation Engineers (ITE) publication *Trip Generation Manual, 10th Edition, Volume 1* and pass-by trip assumptions were based on *Users Guide and Handbook. 3rd Edition*, 2017. After applying those rates the retail building was expected to generate a gross total of 301 daily, 10 a.m. and 27 p.m. peak hour trips. "Pass-by trips" drawn from the stream of traffic already passing on Douglas Road could reduce that estimate to 256 daily, 8 a.m. and 23 p.m. peak hour primary trips made by customers and employees for the specific purpose of visiting the site.

Dutch Brothers Project Trip Generation Forecasts

Institute of Transportation Engineers Rates. The amount of vehicular traffic associated with the Dutch Brothers project has been estimated on a peak hour basis from two perspectives. First, trip generation rates for coffee related uses that are presented in the Institute of Transportation Engineers (ITE) publication, *Trip Generation Manual, 10th Edition* and *11th Edition* were identified and reviewed to determine whether this

[1] Traffic Signal Warrants Analysis and Safety Assessment for Westbound Left Turns Anatolia Marketplace Access intersection on Douglas Road, KDA, September 13, 2021

data is applicable to the proposed Dutch Brothers project. As indicated in Table 1, rates are available for two coffee related uses with drive-thru lanes. Code 938 is a ***Coffee / Donut Shop with Drive-Thru and No Indoor Seating***. While that description does match Dutch Brothers, all the data provided by ITE was collected at very small kiosks (100 sf) that generated 10 to 60 peak hour trips. Because these kiosks were so small their "per ksf" trip generation rates would greatly exaggerate a forecast for the larger Dutch Brothers building. Additional data was collected for the *11th Edition*, but that data reports trip generation rates on a "per drive-thru aisle" basis without regard for the size of the building.

Alternatively, Code 937 is a ***Coffee / Donut Shop with Drive-Thru*** at sites where indoor seating is available. In this case the ITE data was collected at sites that ranged from 1,000 to 2,500 sf, but while the Dutch Brothers project does not offer indoor seating the forecasts from these "per ksf" trip rates may be somewhat helpful in understanding the trip generation characteristic of the Dutch Brothers project.

Dutch Brothers Data. As an alternative method, we have assembled available trip generation information specific to the Dutch Brothers operation (i.e., 865 sf with dual drive-thru aisles) and determined a.m. and p.m. peak hour trip generation forecasts from that perspective. As noted in Table 1, a 2019 report prepared by another firm included a survey of a similar Dutch Brothers in Stockton, California, and our firm surveyed three Dutch Brothers sites in Northern California 2020 - 2021. Average a.m. and p.m. peak hour trip generation rates were created from that data, and these results generally fall between the rates identified by Code 938 and Code 937 in the morning peak hour but are higher than either rate in the evening peak hour.

Peak Hour Trip Generation Forecasts. As indicated in Table 2, based on the data collected we expect that the proposed 950 sf Dutch Brothers project could generate 141 gross trips in the a.m. peak hour and 115 trips in the evening peak hour.

Daily Trip Generation. Data specific to the Dutch Brothers restaurant is not available on a daily basis, and we have typically estimated the business's daily trip generation based on the characteristics of other coffee related uses. The sum of a.m. and p.m. peak hour trip generation rates has been compared to the available daily trip generation rates to suggest a factor that can be applied to the available Dutch Brothers peak hour data. For Code 938, 10th Edition (small kiosks) the sum of peak hour rates represents 21.3% of the daily rate. Using 11th Edition data the two peak periods are 30.6% of the daily rate. For Code 937 (Coffee Shop with seating), the sum equals 23.4% of the daily traffic, while for **Code 934 (Fast-Food with Drive-Thru)**, the sum is equal to 16.6 % of the daily trip generation. The lower the percentage the more traffic caused during non-peak hours. Based on these relationships we conservatively estimate that the sum of Dutch Brothers a.m. and p.m. peak hour trip generation forecasts would be 16% of its daily traffic. We estimate that Dutch Brothers will generate 1,600 daily trips (i.e., (141+115) / 0.16 = 1,600). Again, this forecast is similar to but greater than the projection for the building as a whole based on ITE Code 937 data.

Pass-by Trips. A share of the trips generated by retail and service-related uses is often drawn from the stream of traffic already passing the business. These "pass-by" trips would be made by customers who simply turn into and out of Dutch Brothers as a part of another trip. The ITE Trip Generation Handbook, 3rd Edition presents pass-by trip rates based on interviews with patrons at various businesses, and this data was reviewed. In this case pass-by rates for two land use categories may be applicable. Pass-by rates are presented for Code 938 (10th Edition), and pass-by trips comprised 89% of the p.m. peak hour trips made at the small coffee kiosks included in that study. Similarly, pass-by trip rates for Code 934 *Fast-Food Restaurant with Drive-Thru* are 49% of the a.m. and 50% of the p.m. trips for that use.

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Recognizing that the pass-by trip characteristics of Dutch Brothers likely fall somewhere between these two published rates, we anticipate that **75%** of the trips generated by the Dutch Brothers restaurant will be pass-by trips drawn from the 14,833 vehicles per day we counted on Douglas Road east of Sunrise Blvd this year. The remaining 400 daily, 35 a.m. and 29 p.m. peak hour trips would be made by customers for the primary purpose of visiting Dutch Brothers.

Trip Generation Conclusions

Table 2 identifies the total trip generation associated with the Dutch Brothers kiosk and compares the forecast to information for the approved retail use. As noted, the Dutch Brothers restaurant would generate more total trips than the approved use. However, because a greater share of these trips would be pass-by, the Dutch Brothers would generate only 149 additional primary daily trips made specially for the purpose of vising the site, with 25 more primary trips in the a.m. peak hour and 1 more primary trip in the p.m. peak hour. Thus, while specific driveway volumes associated with the proposed use may be higher, the effects of the proposed project on the regional circulation system would be similar to those previously identified, as the increases are less than the 1,000 daily trip and 100 peak hour trip thresholds used by the City. No further analysis of regional project effects should be needed.

Site Plan Review

The Dutch Brothers facilities are located immediately west of a mid-block right-turn-only driveway located between the Sunrise Blvd intersection and the Marketplace's eastern driveway where inbound left turns are allowed, as shown in Figure 2. The entrance to the Dutch Brothers parking spaces and drive-thru aisles is located just off an internal intersection that itself is about 200 feet from Douglas Road. That intersection also connects Dutch Brothers to the eastern left-turn-in driveway. Dutch Brothers will have inbound access via a connection to the first east-west circulating aisle parallel to Douglas Road and via a second connection to the west beyond the adjoining S-1B building (Dentist Office / Fast Casual Restaurant). Exiting traffic could return to eastbound Douglas Road via the same driveway or continue through Anatolia Marketplace to reach Sunrise Blvd.

Drive-thru Queueing. We have assembled available information regarding the queuing characteristics of Dutch Brothers restaurants with dual drive-thru aisles in order to confirm the adequacy of the proposed site plan. As shown in the attached plan, the proposed Dutch Brothers has room for 5 vehicles approaching the delivery window and another 5 or 7 vehicles in each of the two entry aisles, for a total of 18 vehicles that can be stored inside the designated queueing areas. Dutch Brothers staff regularly takes in-line orders and delivers products during peak periods, and the exit pass-thru lane allows customers who have been serviced while still in line the opportunity to proceed around a time-consuming-order at the pick-up window.

As indicated in Table 3, drive-thru queues were measured at four other Dutch Brothers restaurants. Each is equipped with dual entry aisles and an exit pass-thru lane. This table identifies the maximum queue observed behind the ordering board in each lane and the maximum number of vehicles queueing at one time. As shown, the largest number of concurrent vehicles was in a range of 13 to 16 vehicles, and the 18 vehicles accommodated on the proposed site has the capacity for those totals. Thus, the design should be adequate.

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Dutch Brothers typically monitors the effects of peak period queuing near its drive-thru entrances, and if excessive queues occur temporary traffic controls are implemented to direct incoming customers to alternative routes that stretch out the queue at an acceptable location. Temporary controls are preferable to permanent changes that limit access to all businesses at other times. The site layout can facilitate a temporary control plan by limiting access at the eastern connection to the east-west aisle and directing arriving traffic to the western connection about 250 feet away. From that point traffic to the drive-thru would turn into the east-west aisle adjoining the buildings, and any extra queue can be accommodated in this area (10 more cars). The area around the drive-thru entrance could also be marked "KEEP CLEAR" to inform customers of the need to avoid queuing and to set the stage for the time periods when temporary control goes into effect. Because peak coffee sales typically occur in the morning when most retail businesses and casual dining restaurants are not open, a temporary control plan can be implemented without appreciably affecting the coffee business's neighbors. However, traffic that was destined for other businesses can still access storefront parking via the western connection if needed.

Overall, the project plan has the capacity to accommodate anticipated queuing on site, and if a longer queue was to occur, the aisle through the parking lot has the length to ensure that any backup would not reach a public street or interfere with overall shopping center access to Douglas Blvd.

Thank you for contacting our firm. Please feel free to contact me if you have any questions.

Sincerely,

KD Anderson & Associates, Inc.

Kenneth D. Anderson, P.E.
President

Attachments: Tables 1 - 3, Dutch Brothers Site Plan, Anatolia Marketplace Plan

TABLE 1
DUTCH BROTHERS TRIP GENERATION RATES

Location	Size (sf)	Daily	AM Peak Hour					PM Peak Hour				
			Inbound	Outbound	Trips	Rate per ksf	Pass-by Rate	Inbound	Outbound	Trips	Rate per ksf	Pass-by Rate
			Dutch Brothers Data Specific to 800+ sf model with dual drive thru									
Stockton, CA[1]	810		53%	47%	120	148.10		44%	56%	70	86.42	
Sacramento, CA[2]	865		48%	52%	120	138.72		47%	53%	112	129.48	
Roseville, CA[3]	865		52%	48%	114	131.79		50%	50%	66	76.30	
Turlock, CA[4]	835		52%	48%	145	173.65		50%	50%	162	194.01	
Average			51%	49%	125	148.07		48%	52%	103	121.55	
			ITE Data									
ITE Code 938[5]	2,000.00		50%	50%	10 to 60	337.04		50%	50%		83.33	89%
ITE Code 938[6]	179.00		50%	50%	50 to 150	39.81		50%	50%	5 to 110	15.03	
ITE Code 937[7]	533.57		51%	49%	50 to 400	85.90		50%	50%	30 to 150	38.99	
ITE Code 934[8]	467.48		51%	49%	20 to 500	44.61	49%	52%	48%	20 to 400	33.03	50%

[1] Crane Transportation Group, survey of Stockton CA site 10/3/2019
[2] 4250 El Camino Avenue, Sacramento, CA 11/3/2020
[3] 2348 Sunrise Blvd, Roseville, CA 11/3/2020
[4] 1201 W. Monte Vista Ave, Turlock, CA, June 15, 2021
[5] Coffee / Donut Shop with Drive-Thru and No Indoor Dining, 10th Edition. All samples are 100 sf
[6] Coffee / Donut Shop with Drive-Thru and No Indoor Dining, 11th Edition.
[7] Coffee / Donut Shop with Drive-Thru, 11th Edition. Samples ranged from 1,000 to 2,500 sf
[8] Fast-Food Restaurant with Drive-Thru, 11th Edition

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TABLE 2
SITE S-1A TRIP GENERATION COMPARISON

Land Use	Size (sf)	Daily	AM Peak Hour					PM Peak Hour				
			Inbound	Outbound	Trips	Rate per ksf	Pass-by Rate	Inbound	Outbound	Trips	Rate per ksf	Pass-by Rate
Approved use												
Strip Retail (Code 822)	5,000	272	7	5	12	2.36		17	16	33	6.59	
	Pass-by	41			2		15%			5		15%
	Primary	**231**			**10**					**28**		
Projections for Proposed Dutch Brothers												
Estimate for Dutch Brothers Kiosk	950	1,600	72	69	141	148.07		55	60	115	121.55	
	Pass-by	*1,200*	*53*	*53*	*106*		*75%*	*43*	*43*	*86*		75%[1]
	Primary	**400**	**19**	**16**	***35***			**12**	**17**	**29**		
Change from Approved Use												
Total Trips		**+1,328**			**+129**					**+82**		
Total Primary Trips		**+169**			**+25**					**+1**		

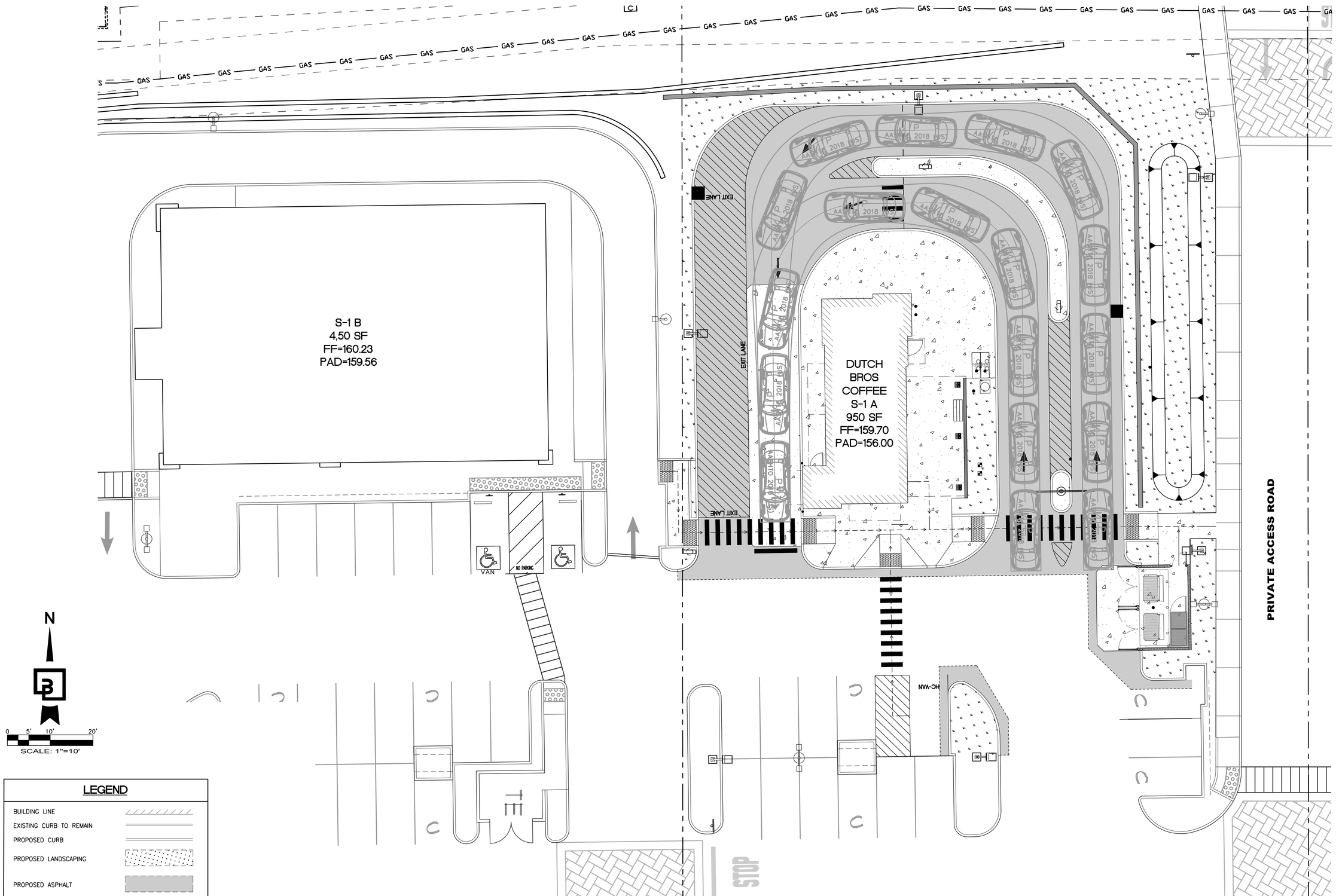
[1] assumed average of rates for Code 938 and Code 934 values

TABLE 3 DUTCH BROTHERS DRIVE THRU QUEUE REPORTS WITH DUAL DRIVE THRU					
Location	Time Period	Pick Up Window	Entry Aisle		Total Vehicles
			#1	#2	
Sacramento, CA	AM	3	5	5	13
	PM	3	7	5	15
Roseville, CA	AM	2	6	5	13
	PM	2	3	2	7
Stockton, CA	AM	-	6	9	15
	PM	-	7	6	13
Turlock, CA	AM	7	3	2	12
	PM	7	4	5	16

KDA

811 Know what's **below.** **Call** before you dig. Dial 811

DUTCH BROS. COFFEE - RANCHO CORDOVA, CA - CA3004
TRAFFIC STUDY EXHIBIT



LEGEND

- BUILDING LINE
- EXISTING CURB TO REMAIN
- PROPOSED CURB
- PROPOSED LANDSCAPING
- PROPOSED ASPHALT
- PROPOSED CONCRETE

PRELIMINARY NOT FOR CONSTRUCTION

"The name DUTCH BROS. and all associated logos, distinctive designs, content, information, and other materials featured, displayed, contained herein, and made available by Dutch Bros., including but not limited to, the "look and feel" of the establishments and products, all text, images, colors, configurations, graphics, designs, illustrations, photographs, and pictures (collectively, the "Materials") are owned by and/or licensed by DB Franchising USA, LLC and are protected by copyright, trademark, trade dress, patent, and/or other intellectual property rights and unfair competition laws under the United States and foreign laws."

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Title: TRAFFIC STUDY EXHIBIT
SEQ DOUGLAS RD + SUNRISE BLVD
RANCHO CORDOVA, CA

For: DUTCH BROS

LICENSED PROFESSIONAL ENGINEER
HAL PRUBB
19814
Not for Construction
STATE OF CALIFORNIA CIVIL

Scale: Horizontal 1" = 10' Vertical N/A

Designed JAH Drawn JAH Checked JAH Approved HPG Date 10/01/21

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 barghausen.com

Job Number 22015

Sheet 1 OF 1

P:\22000s\22015\preliminary\22015-A.dwg 10/1/2021 2:09 PM TLUNDSTEN

SHT. A1
CONCEPTUAL SITE PLAN

RETAINING WALL

MULTI-TENANT MONUMENT SIGN

EXISTING POWER POLE TO BE RELOCATED

36" HIGH SCREEN WALL BERM

RD-10

HWY 99

(E) WALL

SCREEN WALL

22'-4" TO BLDG.
60'-0" MIN.

BIOSWALE

CARWASH

G
3,101 SF

FUTURE BUILDING AREA
(ASSUME 78,000 SF)

BUILDING LIMIT LINE

GAS PUMP CANOPY

TE

RETAINING WALL

228' STACK LENGTH
(180' MIN. STACK LENGTH)

SCREEN WALL

S1-A
950 SF

S-1B
5,476 SF
75 SEATS

S-2
9,000 SF

P-1
4,268 SF
60 SEATS

S-3
5,945 SF

S-4
5,000 SF

253' STACK LENGTH
(180' MIN.)

36" HIGH SCREEN WALL BERM

BUS STOP

RETAINING WALLS

MULTI-TENANT MONUMENT SIGN

EXISTING POWER POLE

OVERHEAD STRUCTURE
10' CLEAR

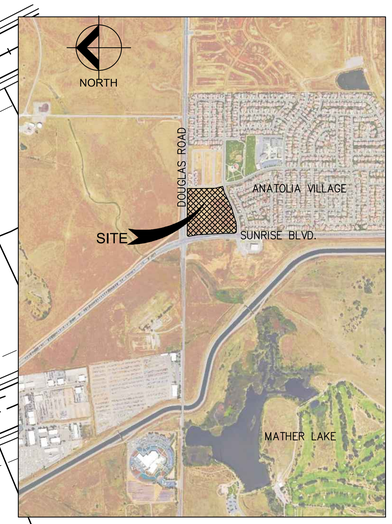
MULTI-TENANT MONUMENT SIGN

TRAFFIC SIGNAL

DOUGLAS ROAD

HERODIAN DRIVE

SUNRISE BOULEVARD



VICINITY MAP
NOT TO SCALE

PROJECT STATISTICS

ZONING: GC-GENERAL COMMERCIAL
APN: 067-0460-001

FUTURE BUILDING(S)	
(ASSUMED BLDG. AREA)	78,000
S-1A	950
S-1B	5,476
S-2	9,000
S-3	5,945
S-4	5,000
G- GAS	3,101
TOTAL	107,472 SF

PARKING REQUIRED (BY CODE)
@ 3.6 / 1,000 SF 387 STALLS

P-1 (RESTAURANT) 4,268 SF / 60 SEATS

PARKING REQUIRED
@ 1 / 3 SEATS 20 STALLS

TOTAL PARKING REQUIRED (BY CODE): 407 STALLS

TOTAL PARKING PROPOSED: 448 STALLS
(4.03/1,000 SF)

0 20' 40' 80'
SCALE: 1"=40'-0"

williams + paddon
ARCHITECTS + PLANNERS
2237 Douglas Blvd., Ste. 160
Roseville, CA 95661
916.786.8178
1715 R Street., Ste. 200
Sacramento, CA 95811
wp-architects.com

ANATOLIA RETAIL CENTER
ANATOLIA MARKETPLACE, LLC.
SUNRISE BOULEVARD
AND DOUGLAS ROAD

08/19/2021

TRAFFIC SIGNAL WARRANTS ANALYSIS AND SAFETY ASSESSMENT FOR WESTBOUND LEFT TURNS AT

ANATOLIA MARKETPLACE ACCESS INTERSECTION ON DOUGLAS ROAD

Rancho Cordova, CA

Prepared for:

D.L.N. Rancho Cordova, LLC
6698 Mack Road
Sacramento, CA 95821

Prepared by:

KD Anderson & Associates, Inc.
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555



November 30, 2021

4537-001

TRAFFIC SIGNAL WARRANTS ANALYSIS AND SAFETY ASSESSMENT FOR WESTBOUND LEFT TURNS AT ANATOLIA MARKETPLACE ACCESS INTERSECTION ON DOUGLAS ROAD

Rancho Cordova, CA

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KDA

TRAFFIC SIGNAL WARRANTS ANALYSIS AND SAFETY ASSESSMENT FOR WESTBOUND LEFT TURNS AT ANATOLIA MARKETPLACE ACCESS INTERSECTION ON DOUGLAS ROAD

Rancho Cordova, CA

INTRODUCTION

This report summarizes an investigation of the need for traffic signal control at the Anatolia Marketplace Access on Douglas Road in Rancho Cordova. This existing intersection is intended to allow westbound left turns into the approved shopping center. This analysis is intended to determine whether the combination of current automobile traffic at the intersection when combined with the vehicular contribution from Phase 1 development in Anatolia Marketplace, results in conditions for westbound left turns that satisfy the requirements of guidelines contained in Chapter 4C of the *Manual of Uniform Traffic Control Devices (CA MUTCD)*. This report also addresses the factors that influence the feasibility of uncontrolled left turns across arterial streets without a traffic signal.

BACKGROUND

Summary of MUTCD Traffic Signal Warrants Criteria

Traffic volume data was evaluated using the signal warrant guidelines set forth in the 2014 California Manual on Uniform Traffic Control Devices (MUTCD).

Nine (9) warrants for traffic signals are cited in Section 4-C of the California MUTCD. The specific thresholds used in these warrants depend upon the characteristics of the subject intersection. Table 1 summarizes the individual warrants and notes which might be applicable to the Anatolia Marketplace access intersection on Douglas Road. As indicated Warrants 1 through 3 deal with vehicular traffic volumes and should be assessed as part of the analysis. These are the warrants most commonly used to determine the need for signalization. Other warrants consider specialized conditions or ancillary factors and are not applicable. For example, there is no pedestrian activity across Douglas Road at this location, so Warrant 4 (Minimum Pedestrian Volume) and Warrant 5 (School Crossing) are not applicable. Similarly, an extra traffic signal isn't needed to coordinate the flow of traffic along Douglas Road, and the access is not a part of the major roadway network, so Warrants 6 and 8 do not apply. Warrant 7 addresses the need for a traffic signal based on actual traffic crash experience, and this location has no crash history. There is no railroad crossing at the access and Warrant 9 is not applicable.

TABLE 1 TRAFFIC SIGNAL WARRANTS		
Warrant	**Description**	**Applicable?**
1A	Minimum Vehicular Volumes (8-hr Warrant)	Yes
1B	Interruption of Continuous Traffic (8-hr Warrant)	Yes
1C	Combination (8-hr Warrant)	Yes
2	Four Hour Warrant	Yes
3A	Peak Hour Delay Warrant	Yes
3B	Peak Hour Volume Warrant	Yes
4	Minimum Pedestrian Volume	No
5	School Crossing	No
6	Coordinated System	No
7	Crash Experience	No
8	Roadway Network	No
9	Intersection Near A Railroad Grade Crossing	No

Current Traffic Conditions

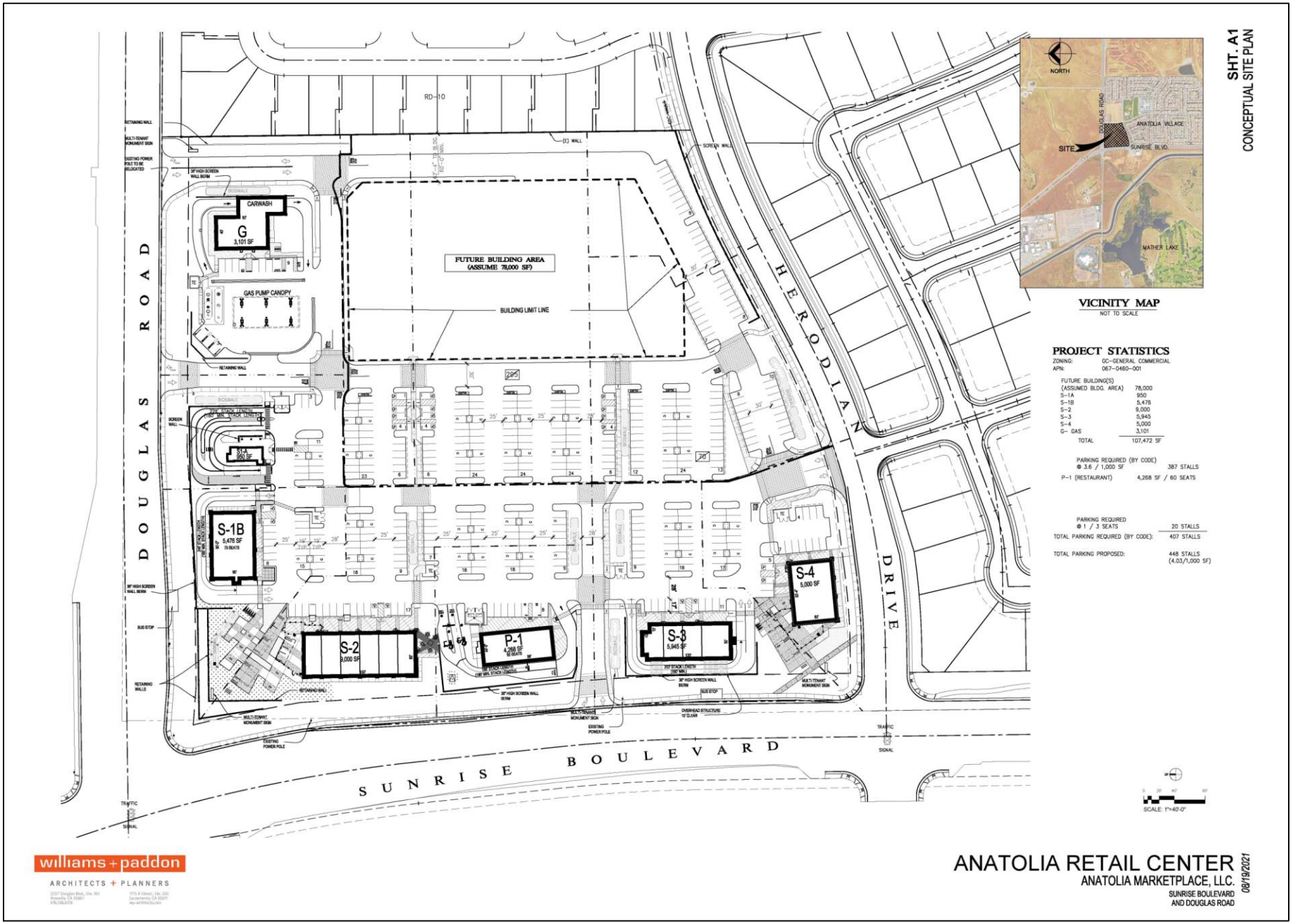
Traffic data for Douglas Road was assembled to provide a basis for this assessment. Because left turns onto Douglas Road are not allowed at the intersection, westbound through traffic is not included in the warrants analysis.

Traffic Volume Data Collection. New hourly traffic counts were conducted on Douglas Road on Tuesday August 17, 2021 (refer to appendix). Over a 24-hour period eastbound Douglas Road carried 7,639 vehicles, and the highest hourly volume occurred between 5:00 p.m. and 6:00 p.m. (i.e., 755 vehicles per hour).

Anatolia Marketplace Traffic

The additional traffic at the intersection associated with uses in the approved Anatolia Marketplace has been identified through a trip generation, distribution and assignment analysis that supplements the site's 2016 traffic impact analysis. Because MUTCD makes use of traffic volumes occurring over the 8 highest volume hours of the day, traffic volume projections have been made for the project for the period from 5:00 a.m. to 10 p.m.

Project Characteristics. Anatolia Marketplace is a retail center located east of Sunrise Blvd and south of Douglas Road, as noted in Figure 1 (site plan). Development of the center is proceeding in phases, with a Chevron gas station being the initial occupant. A Dutch Brothers Coffee and surrounding convenience commercial uses are the balance of Phase 1. Anatolia Marketplace Phase 2 would involve development of a major anchor tenant. City of Rancho Cordova staff has asked that this warrant analysis consider conditions with the Chevron Station and with the balance of Phase 1 developed.


SHT. A1
CONCEPTUAL SITE PLAN
DOUGLAS ROAD
HERODIAN DRIVE
SUNRISE BOULEVARD
RD-10
CARWASH
G
3,101 SF
GAS PUMP CANOPY
FUTURE BUILDING AREA
(ASSUME 78,000 SF)
BUILDING LIMIT LINE
S-1A
950 SF
S-1B
5,476 SF
S-2
9,000 SF
P-1
4,268 SF
S-3
5,945 SF
S-4
5,000 SF
NORTH
SITE
ANATOLIA VILLAGE
SUNRISE BLVD.
MATHER LAKE
VICINITY MAP
NOT TO SCALE
PROJECT STATISTICS
ZONING: GC-GENERAL COMMERCIAL
APN: 067-0460-001
FUTURE BUILDING(S)
(ASSUMED BLDG. AREA) 78,000
S-1A 950
S-1B 5,476
S-2 9,000
S-3 5,945
S-4 5,000
G- GAS 3,101
TOTAL 107,472 SF
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TOTAL PARKING PROPOSED: 448 STALLS
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SCALE: 1"=40'-0"
williams + paddon
ARCHITECTS + PLANNERS
ANATOLIA RETAIL CENTER
ANATOLIA MARKETPLACE, LLC.
SUNRISE BOULEVARD
AND DOUGLAS ROAD
08/19/2021

SITE PLAN

Trip Generation Forecasts. With one exception trip generation rates published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 11th Edition* that are commonly accepted by the City of Rancho Cordova have been used. Trip generations rates that are specific to Dutch Brothers Coffee Kiosk have been used, as noted in the trip generation analysis complete for that use.[1] (attached). Phase 1 of Anatolia Marketplace including the Chevron station is expected to generate 9,092 trip ends over a 24-hour period (i.e., 4,546 into the site and 4,546 out). These trips would occur throughout the day, and the volume of traffic during the peak a.m. and p.m. commute hours are noted in Table 2. The pass-by rates associated with these uses were identified from the ITE Trip Generation Handbook[2].

The volume of traffic generated by the Chevron station and the rest of Phase 1 of Anatolia Marketplace has also been estimated on an hourly basis using the time of day distribution identified for each use by ITE. This information is identified in Table 3.

[1] Traffic Operational Analysis for CA 3004 Dutch Brothers Restaurant on Douglas Road, Rancho Cordova, KDA, 11/29/2021
[2] Trip Generation Handbook, 3rd Edition, Institute of Transportation Engineers, 2014

TABLE 2
ANATOLIA MARKETPLACE TRIP GENERATION GAS STATION AND BALANCE OF PHASE 1

Land Use	ITE Code	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Dentist Office	720	ksf	50%	50%	36.0	79%	21%	3.10	30%	70%	3.93
		3.0	54	54	108	7	2	9	4	8	12
Fast Casual Restaurant	930	ksf	50%	50%	97.14	50%	50%	1.43	55%	45%	12.55
		2.42	117	118	235	1	2	3	16	14	30
	Pass-by	43% daily / pm	50	50	100	0	0	0	6	6	12
	Net Primary		67	68	135	1	2	3	10	8	18
Strip Retail Space	822	ksf	50%	50%	54.45	60%	40%	2.36	50%	50%	6.59
		18.95	516	516	1,032	27	18	45	62	63	125
	Pass-by	15%	77	77	154	3	3	6	9	9	18
	Net Primary		439	439	878	24	15	39	53	54	107
Gasoline sales w/ C-store	945	Position	50%	50%	265.12	50%	50%	16.06	50%	50%	18.42
		12 Positions	1,591	1,590	3,181	97	97	194	111	110	221
	Pass-by	50% daily, 62% am 56% pm	795	795	1,590	60	60	120	62	62	124
	Net Primary		796	795	1,591	37	37	74	49	48	97
Dutch Brothers Coffee		ksf	50%	50%	1,685.12	51%	49%	148.07	48%	52%	121.55
		0.95	800	800	1,600	72	69	141	55	60	115
	Pass-by	75% daily and pm	600	600	1,200	53	53	106	43	43	86
	Net Primary		200	200	400	19	16	35	12	17	29
Fast Food Restaurant with Drive-Thru	934	ksf	50%	50%	467.48	51%	49%	44.61	52%	48%	33.03
		6.28	1,468	1,468	2,936	143	137	280	107	100	207
	Pass-by	50%	734	734	1,468	70	70	140	52	52	104
	Net Primary		734	734	1,468	73	67	140	55	48	103
Total	Gross Trips		**4,546**	**4,546**	**9,092**	**347**	**325**	**672**	**355**	**355**	**710**
	Pass-by		**2,256**	**2,256**	**4,512**	186	186	372	172	172	344
	Net Primary		***2,290***	***2,290***	***4,580***	***161***	***139***	***300***	***183***	***183***	***366***

TABLE 3
HOURLY DISTRIBUTION OF
TRIPS ENTERING AND EXITING ANATOLIA MARKETPLACE

Time	Chevron				Balance of Phase 1														Total Phase 1	
					Fast Food Restaurants				Retail				Other[1]		Dutch Brothers					
	% of 24-Hour Traffic		Trips		% of 24-Hour Traffic		Trips		% of 24-Hour Traffic		Trips		Trips		% of 24-Hour Traffic		Trips		Trips	
			In	Out			In	Out			In	Out	In	Out			In	Out	In	Out
	Enter	Exit	1,591	1,590	Enter	Exit	1,468	1,468	Enter	Exit	516	516	171	172	Enter	Exit	800	800	4,545	4,546
4-5 a.m.	1.0	1.1	16	17	0.4	0.3	6	4	0.0	0.0	0	0	0	0	1.9	1.5	15	12	37	34
5-6 a.m.	2.3	2.2	37	36	0.8	0.7	12	10	0.1	0.1	1	1	0	0	8.2	6.8	66	54	115	101
6-7 a.m.	4.7	4.5	75	72	2.3	1.9	34	28	0.3	0.2	2	1	1	0	10.0	8.9	80	71	192	173
7-8 a.m.	6.2	6.1	98	98	3.2	2.9	47	43	1.4	0.9	7	5	6	1	10.3	9.8	82	79	240	224
8-9 a.m.	5.8	5.9	92	94	3.4	3.3	50	48	2.6	1.5	13	8	8	3	10.0	10.1	80	81	243	234
9-10 a.m.	5.0	5.1	80	81	3.3	3.2	48	47	4.7	2.5	24	13	7	6	7.7	8.5	61	68	221	214
10-11 a.m.	5.2	5.2	82	82	4.0	3.7	59	54	7.1	4.1	37	21	7	6	7.2	7.6	57	61	241	225
11-12 p.m.	5.3	5.2	85	83	9.1	7.6	134	112	9.7	6.8	50	35	21	16	6.7	7.2	53	58	342	303
12-1 p.m.	5.8	5.8	92	92	11.7	11.8	172	173	10.6	9.4	55	49	19	23	5.4	6.1	43	49	380	384
1-2 p.m.	5.4	5.3	86	85	7.8	8.7	115	128	8.2	9.5	47	49	15	16	6.3	5.7	50	45	314	323
2-3 p.m.	6.1	5.8	96	93	5.8	6.4	85	94	8.9	9.2	46	47	13	13	5.2	5.6	41	45	281	292
3-4 p.m.	6.5	6.4	103	102	5.6	5.6	82	82	8.5	9.0	44	46	11	12	5.7	5.3	46	42	286	285
4-5 p.m.	7.2	7.1	115	112	5.7	5.4	84	79	8.9	9.4	46	49	13	14	4.6	4.2	37	33	294	287
5-6 p.m.	7.2	7.1	115	112	6.8	6.4	100	94	9.2	9.4	47	49	15	16	2.7	3.4	21	27	295	296
6-7 p.m.	6.5	6.6	103	104	7.3	7.2	107	106	7.6	8.5	39	44	14	16	2.7	3.0	21	34	284	295
7-8 p.m.	5.3	5.3	84	84	6.4	6.7	94	98	5.3	6.9	27	36	10	13	2.1	2.1	17	17	232	248
8-9 p.m.	4.3	4.5	68	71	5.8	6.0	85	88	3.2	5.6	17	29	6	7	1.2	1.9	10	15	186	210
9-10 p.m.	3.7	3.7	59	59	4.3	4.8	63	70	1.6	4.3	8	22	4	4	1.2	1.2	9	9	144	166
10-11 p.m.	2.7	2.8	43	44	2.7	3.2	40	47	0.7	1.5	4	8	1	2	0.4	0.6	3	5	90	106
11-12 a.m.	1.8	1.9	29	30	1.6	2.0	23	29	0.2	0.7	2	4	0	0	0.0	0.1	0	0	54	64

Source: ITE *Trip Generation Manual*, 10th Edition [1] Dentist office and fast casual restaurant

Trip Distribution. The regional distribution of trips to and from Anatolia Marketplace will likely reflect the trip origins / destinations within the trade area of individual businesses, as well as the share of trips drawn from the flow of traffic already passing the site on Sunrise Blvd and Douglas Road. Typically, primary trips drawn to convenience retail / service uses originate within 1 to 2 miles of the site. The trip distribution assumptions originally made in 2016 TIS were reviewed and updated to reflect development since 2016 in the southern Rancho Cordova area, and the assumptions made for this analysis are shown in Table 4. As shown, the Chevron station and buildings S-1A and S-1B will draw more pass-by traffic from Douglas Road than will other buildings along Sunrise Blvd.

TABLE 4
ANATOLIA MARKETPLACE PHASE 1 PRIMARY TRIP DISTRIBUTION

Directionality	Percent of Total		
	Primary Trips	Pass By Trips	
		Chevron Dutch Brothers and S-1B	S-2, P-1, S-3, S-4
To/From the north on Sunrise Blvd	15%		
To/From the east on Douglas Blvd	35%		
To/From the west on Douglas Blvd	5%		
To/From the east on Herodian Dr	10%		
To/From the east on Chrysanthy Blvd	15%		
To/From the south on Sunrise Blvd	20%		
Total	100%		
Northbound Sunrise Blvd		25%	40%
Westbound Douglas Road		35%	10%
Eastbound Douglas Blvd		40%	25%
Southbound Sunrise Blvd		0%	25%
Total		100%	100%

Trip Assignment. The trips generated by businesses in Anatolia Marketplace would use the internal circulation system and project driveways along the "least time path" between the site and the destination noted under Trip Distribution. The choice of routes will vary based on the location of each business within the center, particularly with regards to exiting traffic headed north. Motorists leaving the far northeast corner of the site, such as the Chevron station, may turn right on Douglas Road and make U-turns at Cades Cove Drive. Alternatively, traffic headed south on Sunrise Blvd will likely travel through the site and turn left at the Herodian Drive traffic signal.

Table 5 summarizes the derivation of total hourly traffic volumes at the Douglas Road / Anatolia Marketplace East driveway based on the sum of Chevron station traffic and trips from the balance of the Anatolia Marketplace Phase 1 site. In each case the table identifies the assignment of trips for each of the three movements that are input to Warrants 1, 2 and 3:

Major Street Volumes (columns H and I)

- Eastbound Douglas Road through traffic
- Eastbound Douglas Road right turns

Minor Approach Volume (columns J and K)

- Westbound left turn

TABLE 5
EXISTING PLUS PROJECT HOURLY TRAFFIC ESTIMATES
AT DOUGLAS ROAD / ANATOLIA MARKETPLACE ACCESS INTERSECTION

Hour	Vehicles per hour (vph)											
	Eastbound Douglas Road									Westbound Douglas Road Left Turns		
	Eastbound Through Traffic				Eastbound Right Turns			Total All Eastbound Traffic				
	A	B	C	D	E	F	G	H	I	J	K	L
	Existing	Chevron	Balance of Phase 1	Total New	Chevron	Balance of Phase 1	Total New	Existing Plus Chevron alone	Existing Plus Chevron and Balance of Phase 1	Chevron	Balance of Phase 1 alone	Total New
	A	B	C	B+C	E	F	E+F	A+B+E	A+D+G	J	K	J+K
5:00 a.m.	118	2	6	8	4	0	4	125	131	13	22	35
6:00 a.m.	322	5	8	13	9	0	9	335	344	26	35	61
7:00 a.m.	367	12	12	24	11	0	11	390	402	34	43	77
8:00 a.m.	457	12	15	27	10	1	11	479	494	32	46	78
9:00 a.m.	317	10	16	26	9	0	9	336	352	28	44	72
10:00 a.m.	333	10	18	28	9	1	10	352	370	29	52	81
11:00 a.m.	404	10	26	36	9	1	10	423	450	30	88	118
12:00 a.m.	446	11	45	56	10	1	11	468	508	32	102	134
1:00 p.m.	409	10	39	49	9	1	10	429	464	30	78	108
2:00 p.m.	490	11	33	44	11	0	11	511	542	34	62	96
3:00 p.m.	569	13	32	42	11	1	12	593	621	36	62	98
4:00 p.m.	688	10	31	41	13	1	14	712	739	40	61	101
5:00 p.m.	755	11	32	43	13	1	14	778	807	39	64	103
6:00 p.m.	629	13	33	46	11	1	12	654	682	36	65	101
7:00 p.m.	450	11	27	38	9	1	10	470	494	29	54	83
8:00 p.m.	329	9	22	31	8	0	8	346	365	24	43	67
9:00 p.m.	209	7	17	24	6	1	7	223	239	21	31	52
10:00 p.m.	136	6	8	14	5	0	5	147	155	15	18	33
24 hr total	7,639	199		590	175	12	187	8,013	8,416	557	1,001	1,558
Volumes for Warrant 3 only				Additional Volumes for Warrant 2				Additional volumes for Warrant 1				

TRAFFIC SIGNAL WARRANTS REVIEW

Summary Conclusions

The traffic signal warrants analysis reached the conclusions noted below and noted in Table 6.

1. No traffic warrant relating to traffic volume is satisfied with operation of the Chevron station alone.
2. No traffic volume warrant is satisfied with full occupancy of Anatolia Marketplace Phase 1.

TABLE 6
TRAFFIC SIGNAL WARRANTS SUMMARY

Warrant	Description of Warrant	Warrant Satisfied?	
		Chevron Station Alone	Buildout of Phase 1
1A	Minimum Vehicular Volumes (8-hr Warrant)	No	80%
1B	Interruption of Continuous Traffic (8-hr Warrant)	No	No
1C	Combination (8-hr Warrant)	No	No
2	Four Hour Warrant	No	No
3A	Peak Hour Delay Warrant	No	No
3B	Peak Hour Volume Warrant	No	No

An explanation of the issues associated with each warrant follows.

Warrant 1: Eight-Hour Vehicular Volume: (NOT SATISFIED)

There are three parts to Warrant 1.

Warrant 1A: Minimum Vehicular Volume: (80% SATISFIED). The minimum vehicular volume is intended for applications where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. For each of any eight (8) hours on an "average" day (defined as a weekday representing traffic volumes normally and repeatedly found at the location), a total minimum volume of 420 vehicles per hour must be present on the two major street approaches. In the case of a signal controlling inbound left turns, only the affected major volume is included (i.e., only eastbound traffic). A minimum of 105 vehicles per hour in a single lane must be present on the higher of the minor street approaches (i.e., westbound left turn lane).

As shown on the attached worksheets (Figure 4C-101), the volumes forecast for the highest volume eight hours at the Douglas Road / Anatolia Marketplace East driveway do not reach the levels that fully satisfy this requirement for eight hours of the day with the Chevron station alone or with occupancy of Phase 1. Therefore, this warrant is not satisfied.

Warrant 1B: Interruption of Continuous Traffic: (NOT SATISFIED). This warrant addresses the condition when the volume of traffic on the major street is so large as to require a traffic signal to accommodate minor street access. For each of any eight (8) hours on an average day, a minimum volume of 630 vehicles per hour must be present on eastbound Douglas Road, and a minimum of 53 vehicles per hour must be present in the left turn lane. This warrant is not satisfied with the Chevron station alone or with full occupancy of Phase 1.

Warrant 1C: Combination of Warrants: (NOT SATISFIED). Traffic signals may be warranted where conditions 1A and 1B are not 100% satisfied, but where both Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values. Condition A is satisfied to the 80% level, but Condition B is not satisfied to the 80% level. Thus, this combination of warrants is not met for all of the eight hours.

Warrant 2: Four Hour Volumes: (NOT SATISFIED)

Conditions for this warrant are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. This Warrant is satisfied when, for each of any four hours or more of an average day, the plotted points representing the vehicles per hour on the major street and the corresponding vehicles per hour in the left turn lane all fall above the curve as presented in Figure 4C-1. As shown in the attachments to this report, this warrant is not met for the four highest volume hours of the day.

Warrant 3: Peak Hour Volume / Delay: (NOT SATISFIED)

Warrant 3A: Peak Hour Delay: (NOT SATISFIED). The peak hour delay warrant suggests that the length of side street delay is sufficient to justify a traffic signal. Warrants are satisfied by a combination of total approach delay and minimum entering volumes. Total side street approach delay must exceed 4 vehicle-hours (one-lane approach), while the side street approach volume must exceed 100 vehicles per hour (vph) and the total entering volume must exceed 800 vph. SimTraffic simulation was used to identify delay length in the westbound left turn lane during the highest volume hour. In this case, with Phase 1 occupancy the total peak hour delay for westbound left turns is 0.2 vehicle hours, and the 95th percentile queue in the left turn lane is 65 feet. As total delay is well below the 4 vehicle hour threshold, this warrant is not satisfied.

Warrant 3B: Peak Hour Volume: (NOT SATISFIED). The peak hour volume signal warrant is intended for use at a location where traffic conditions are such that for a minimum of one hour of an average day, the minor street traffic suffers undue delay when entering or crossing the major street. Warrants are satisfied when the plotted point representing the vehicles per hour on the major street and the corresponding vehicles per hour in the left turn lane falls above the curve presented in Figure 4C-3. As shown in the attachments to this report, the highest hourly volumes do not reach the levels that satisfy this warrant.

FEASIBILITY OF UNCONTROLLED LEFT TURNS

This assessment of the feasibility of uncontrolled left turn access from Douglas Road into Anatolia Marketplace without a traffic signal is based on the speed of eastbound traffic on Douglas Road and the sight distance needed by westbound motorists to identify appropriate gaps in that traffic and safely complete left turns.

Background Information

Existing Traffic Volumes and Speeds. A 24-hour count was made on Douglas Road in the area of the project access on August 17, 2021. That count indicated a total daily traffic volume on Douglas Road of 14,833 vehicles per day. More importantly the count was conducted in a manner that captured the speed of traffic as it passed. The speed limit is 55 mph. As indicated in Table 7, average speed of eastbound traffic over 24 hours was 50 mph, while the 85th percentile speed, which is commonly used to establish speed limits, was 56 mph. 5% of the eastbound traffic traveled at 60 mph or higher (i.e., 95% speed). The speeds were slightly higher in the westbound direction.

TABLE 7
CURRENT TRAFFIC VOLUME AND SPEED INFORMATION
ON DOUGLAS ROAD EAST OF SUNRISE BLVD

Location	Direction	Daily Volume	Speed (mph)		
			Average	85th %	95th %
Douglas Road 800 feet east of Sunrise Blvd	Eastbound	7,639	50	56	60
	Westbound	7,194	52	58	62
	Both	14,833	-		

Sight Distance. A site visit was conducted to identify the sight distance available for motorists who would be waiting to turn left into the Anatolia Marketplace from westbound Douglas Road. The horizontal alignment of Douglas Road in this area is straight, and there is a slight hump in the vertical alignment just east of the Sunrise Blvd intersection. However, as noted in the attached photograph taken from the left turn lane, the view is clear to the Sunrise Blvd intersection 800 feet away. While trees are in the median, their foliage is above the driver's line of sight and do not interfere with sight distance.

Evaluation Criteria

Left turns across three lanes of travel create design requirements to ensure safety. In addition to the need for adequate sight distance from the left turn lane itself, the driveway's receiving area needs to provide deceleration space for turning vehicles.

Sight Distance The American Association of State Highway and Transportation Officials (AASHTO) publication *Policy on the Design of Highways and Streets* Table 9-17 outlines the distance at which an eastbound vehicle would need to be seen by a motorist waiting to turn left

into the project in order to have room to turn. These values are based on the time needed for a motorist to identify a gap in oncoming traffic and drive across Douglas Road. For automobiles across three lanes of traffic this time is assumed to be 6.5 seconds. A 60 mph design speed would match the 95th percentile speed on eastbound Douglas Road, and for a 60 mph design across three lanes of eastbound traffic that distance is 580 feet, as shown in Table 8.

TABLE 8
SIGHT DISTANCE REQUIREMENTS FOR LEFT TURNS ACROSS TRAFFIC

Design Speed (mph)	Stopping Sight Distance (feet)	Intersection Sight Distance (feet)		
		Across 1 lane	Across 2 lanes	Across 3 lanes
35	250	285	310	335
40	305	325	355	385
45	360	365	400	430
50	425	405	440	480
55	495	445	485	525
60	570	490	535	**580**
65	645	530	580	625

Left turning vehicles will also need to be aware of traffic entering from the other Anatolia Marketplace driveway located about 240 feet to the west. Those vehicles will be visible from the westbound left turn lane. In this case, right turning traffic at the driveway will accelerate after making the turn and based on AASHTO Figure 2-33 could reach a speed of 30 to 32 mph and take 7 seconds to reach the next intersection. Because this travel time exceeds the time needed to complete the left turn, the distance between the two driveways and the available sight distance is adequate.

Deceleration. To make left turns into Anatolia Marketplace motorists will accelerate from a stop across three travel lanes and then move into the driveway. It is important that the driveway design allow that entry at the probable turning speed and provide subsequent deceleration space. In this way entering vehicles will not need to slow down on Douglas Road itself when making the turn. Assuming that a driver reaches a speed of 25 mph when completing the turn, AASHTO Figure 2-34 suggests that another 120 feet is needed to come to a comfortable stop.

Left Turn Queue Storage. The existing left turn lane is 240 feet long. The lane would need to provide the space needed to accommodate the peak queues waiting to turn left. Two methods are available to identify peak queue length and left turn lane storage. First, the queue length is identified as a byproduct of operating Level of Service analysis and simulation. Secondly, the turn lane storage recommended in the Caltrans Highway Design Manual (HDM) has been identified. The HDM suggests that un-signalized left turn lanes provide storage equivalent to a two-minute accumulation of peak hour vehicles, with a waiting vehicle assumed to occupy 25 feet.

Assessment

Sight Distance. The view looking westward from the existing left turn lane is clear through the Sunrise Blvd intersection, which is 800 feet away. As the sight distance exceeds the 580 foot AASHTO requirement, the view is adequate for left turns.

Driveway Deceleration. Under the current plan the driveway throat depth is 200 feet. This exceeds the comfortable deceleration distance from 25 mph. Entering traffic will not need to slow on Douglas Road when completing the turn, and the design is adequate to allow left turns without a signal.

95th Percentile Left Turn Queues / Storage. Under Existing Plus Phase 1 conditions the highest volume traffic hour would carry 103 westbound left turns. SimTraffic simulation of the intersection operation indicated an average delay for left turns of 7 seconds per vehicle at that time. The 95th percentile queue was estimated to be 65 feet long. The 240 feet lane can accommodate this queue.

Under HDM methods the storage requirement is based on left turn volume regardless of the amount of opposing eastbound traffic. With full occupancy of Phase 1 the highest volume hour had 97 westbound left turns, and the highest number of left turns in any one hour was 124 at noon. The 2 minute accumulation of these volumes is 4 and 5 vehicles, respectively, with corresponding storage lengths of 100 and 125 feet. These lengths can be accommodated in the existing 240 foot left turn lane.

Conclusion

Based on these criteria, left turns into the Anatolia Marketplace East driveway are feasible without a traffic signal.

APPENDIX

ATTACHMENT 2 4537-001

Exhibit A to the Resolution

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Douglas Rd E/O Sunrise Blvd

Day: Tuesday
Date: 8/17/2021

City: Rancho Cordova
Project #: CA21_070129_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,639	7,194	14,833

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	6		7		13		12:00	0	0	124		112		236	
00:15	0	0	8		6		14		12:15	0	0	109		102		211	
00:30	0	0	14		6		20		12:30	0	0	101		112		213	
00:45	0	0	17	45	6	25	23	70	12:45	0	0	112	446	99	425	211	871
01:00	0	0	8		3		11		13:00	0	0	106		90		196	
01:15	0	0	7		3		10		13:15	0	0	96		106		202	
01:30	0	0	0		2		2		13:30	0	0	106		105		211	
01:45	0	0	4	19	5	13	9	32	13:45	0	0	101	409	123	424	224	833
02:00	0	0	5		3		8		14:00	0	0	124		124		248	
02:15	0	0	3		2		5		14:15	0	0	86		133		219	
02:30	0	0	0		5		5		14:30	0	0	119		133		252	
02:45	0	0	0	8	7	17	7	25	14:45	0	0	161	490	122	512	283	1002
03:00	0	0	5		1		6		15:00	0	0	119		122		241	
03:15	0	0	2		5		7		15:15	0	0	137		119		256	
03:30	0	0	11		2		13		15:30	0	0	155		114		269	
03:45	0	0	3	21	10	18	13	39	15:45	0	0	158	569	129	484	287	1053
04:00	0	0	10		4		14		16:00	0	0	158		145		303	
04:15	0	0	7		14		21		16:15	0	0	166		131		297	
04:30	0	0	5		14		19		16:30	0	0	192		155		347	
04:45	0	0	10	32	13	45	23	77	16:45	0	0	172	688	126	557	298	1245
05:00	0	0	20		30		50		17:00	0	0	206		138		344	
05:15	0	0	21		46		67		17:15	0	0	210		139		349	
05:30	0	0	28		51		79		17:30	0	0	185		115		300	
05:45	0	0	49	118	71	198	120	316	17:45	0	0	154	755	113	505	267	1260
06:00	0	0	60		74		134		18:00	0	0	194		128		322	
06:15	0	0	75		89		164		18:15	0	0	165		77		242	
06:30	0	0	87		108		195		18:30	0	0	138		110		248	
06:45	0	0	100	322	135	406	235	728	18:45	0	0	132	629	84	399	216	1028
07:00	0	0	114		141		255		19:00	0	0	129		69		198	
07:15	0	0	69		184		253		19:15	0	0	113		66		179	
07:30	0	0	80		182		262		19:30	0	0	101		65		166	
07:45	0	0	104	367	225	732	329	1099	19:45	0	0	107	450	54	254	161	704
08:00	0	0	100		177		277		20:00	0	0	98		57		155	
08:15	0	0	147		128		275		20:15	0	0	79		37		116	
08:30	0	0	123		126		249		20:30	0	0	93		40		133	
08:45	0	0	87	457	122	553	209	1010	20:45	0	0	59	329	54	188	113	517
09:00	0	0	72		125		197		21:00	0	0	71		40		111	
09:15	0	0	89		103		192		21:15	0	0	49		32		81	
09:30	0	0	84		105		189		21:30	0	0	55		21		76	
09:45	0	0	72	317	86	419	158	736	21:45	0	0	34	209	26	119	60	328
10:00	0	0	102		83		185		22:00	0	0	40		31		71	
10:15	0	0	75		102		177		22:15	0	0	35		16		51	
10:30	0	0	82		91		173		22:30	0	0	36		10		46	
10:45	0	0	74	333	119	395	193	728	22:45	0	0	25	136	10	67	35	203
11:00	0	0	94		111		205		23:00	0	0	23		7		30	
11:15	0	0	103		107		210		23:15	0	0	26		13		39	
11:30	0	0	99		112		211		23:30	0	0	12		4		16	
11:45	0	0	106	402	82	412	188	814	23:45	0	0	27	88	3	27	30	115
TOTALS				2441		3233		5674	TOTALS				5198		3961		9159
SPLIT %				43.0%		57.0%		38.3%	SPLIT %				56.8%		43.2%		61.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,639	7,194	14,833

AM Peak Hour			07:45	07:15	07:30	PM Peak Hour	16:30	15:45	16:30
AM Pk Volume			474	768	1143	PM Pk Volume	780	560	1338
Pk Hr Factor			0.806	0.853	0.869	Pk Hr Factor	0.929	0.903	0.958
7 - 9 Volume	0	0	824	1285	2109	4 - 6 Volume	1443	1062	2505
7 - 9 Peak Hour			07:45	07:15	07:30	4 - 6 Peak Hour	16:30	16:30	16:30
7 - 9 Pk Volume	0	0	474	768	1143	4 - 6 Pk Volume	780	558	1338
Pk Hr Factor	0.000	0.000	0.806	0.853	0.869	Pk Hr Factor	0.929	0.900	0.958

Prepared by National Data & Surveying Services

SPEED

Douglas Rd E/O Sunrise Blvd

Day: Tuesday
Date: 8/17/2021

City: Rancho Cordova
Project #: CA21_070129_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	1	0	1	6	4	0	1	0	13
00:15	0	0	0	0	0	1	5	2	5	1	0	0	0	14
00:30	0	0	0	0	0	1	0	7	2	6	3	1	0	20
00:45	0	0	0	0	0	2	3	6	6	2	3	1	0	23
01:00	0	0	0	0	0	0	2	6	2	1	0	0	0	11
01:15	0	0	0	0	0	2	0	3	2	2	1	0	0	10
01:30	0	0	0	0	0	0	0	0	0	1	0	0	1	2
01:45	0	0	0	0	0	0	1	4	2	2	0	0	0	9
02:00	0	0	0	0	0	0	2	2	3	1	0	0	0	8
02:15	1	0	0	0	0	0	0	3	0	1	0	0	0	5
02:30	0	0	0	0	0	0	1	1	2	1	0	0	0	5
02:45	0	0	0	0	0	0	0	4	0	0	3	0	0	7
03:00	0	0	0	0	0	0	2	0	0	3	1	0	0	6
03:15	0	0	0	0	0	0	1	0	3	2	1	0	0	7
03:30	0	0	0	0	0	0	1	6	3	3	0	0	0	13
03:45	0	0	0	0	0	0	0	0	9	1	1	1	1	13
04:00	0	0	0	0	0	0	4	1	3	5	0	1	0	14
04:15	0	0	0	0	0	1	3	4	5	5	2	0	1	21
04:30	0	0	0	0	0	0	1	3	6	8	1	0	0	19
04:45	0	0	0	0	1	0	1	2	7	9	3	0	0	23
05:00	0	0	0	0	0	3	4	13	20	7	3	0	0	50
05:15	0	0	0	0	0	0	5	16	23	17	5	1	0	67
05:30	0	1	0	0	2	1	4	14	32	16	8	0	1	79
05:45	0	0	0	0	1	4	12	30	33	27	11	2	0	120
06:00	0	0	0	0	3	4	14	36	44	26	7	0	0	134
06:15	0	0	0	2	4	8	21	40	55	26	6	2	0	164
06:30	0	0	0	0	0	3	24	46	64	48	10	0	0	195
06:45	0	0	0	1	2	8	32	59	77	46	8	2	0	235
07:00	0	0	0	0	2	11	25	69	89	50	7	2	0	255
07:15	0	0	0	0	5	8	20	57	92	49	18	4	0	253
07:30	0	0	0	0	1	3	20	60	76	79	23	0	0	262
07:45	0	0	1	0	0	7	27	105	117	65	7	0	0	329
08:00	1	0	0	0	2	11	15	75	95	65	12	1	0	277
08:15	0	0	0	1	5	12	36	91	79	38	12	0	1	275
08:30	0	0	0	0	3	9	27	64	88	43	11	2	2	249
08:45	0	0	0	0	1	6	22	62	63	44	10	1	0	209
09:00	0	0	0	1	0	1	14	59	73	38	10	1	0	197
09:15	0	0	0	0	2	5	20	64	58	36	6	1	0	192
09:30	0	0	0	2	2	10	24	50	61	32	7	1	0	189
09:45	0	0	0	0	3	6	11	35	64	32	7	0	0	158
10:00	0	0	0	0	5	9	24	49	50	39	8	1	0	185
10:15	0	0	0	0	0	3	17	56	60	29	12	0	0	177
10:30	0	0	0	1	0	7	22	39	62	30	10	2	0	173
10:45	0	0	0	0	0	2	12	57	65	42	12	3	0	193
11:00	0	0	0	1	3	10	23	43	69	44	11	1	0	205
11:15	1	0	0	0	1	8	30	60	67	35	7	1	0	210
11:30	0	0	0	0	0	6	25	49	84	35	12	0	0	211
11:45	0	1	0	1	1	3	25	52	61	35	7	2	0	188
12:00 PM	0	0	0	0	0	7	38	68	77	33	11	2	0	236
12:15	0	0	0	0	0	9	25	66	68	34	7	2	0	211
12:30	0	1	0	0	5	2	21	55	81	39	8	1	0	213
12:45	0	0	0	0	0	5	24	53	65	45	15	3	1	211
13:00	1	0	0	0	2	5	28	42	71	41	6	0	0	196
13:15	0	0	0	2	1	1	17	60	63	44	11	3	0	202
13:30	1	1	0	0	0	6	25	60	59	41	17	1	0	211
13:45	0	0	0	0	1	4	21	59	89	47	3	0	0	224
14:00	0	0	0	0	0	2	14	82	87	50	11	2	0	248
14:15	0	0	0	1	0	6	10	54	74	56	17	1	0	219
14:30	0	0	0	0	2	5	30	70	85	44	16	0	0	252
14:45	0	0	0	0	0	7	33	75	95	58	13	2	0	283
15:00	1	0	0	1	1	3	29	73	78	43	12	0	0	241
15:15	0	0	0	0	0	5	30	76	82	52	11	0	0	256
15:30	1	0	0	0	1	2	22	78	94	47	22	2	0	269
15:45	0	0	0	0	0	6	39	71	117	40	12	2	0	287
16:00	0	0	0	0	2	6	25	85	113	58	12	2	0	303
16:15	0	0	0	0	0	8	25	85	103	57	14	5	0	297
16:30	0	0	0	0	1	10	36	109	116	55	17	3	0	347
16:45	0	0	0	0	0	14	30	79	97	65	12	1	0	298
17:00	0	0	0	0	1	4	36	85	124	72	21	1	0	344
17:15	0	0	0	0	1	3	29	101	136	59	19	1	0	349
17:30	1	0	0	0	0	2	24	98	97	55	16	6	1	300
17:45	0	0	0	0	0	2	15	86	95	51	15	3	0	267
18:00	0	1	0	0	0	3	32	87	115	68	14	1	1	322
18:15	0	0	0	0	0	3	14	68	90	53	14	0	0	242
18:30	0	0	0	0	0	9	33	73	88	38	5	1	1	248
18:45	0	0	0	0	0	7	22	49	74	50	12	2	0	216
19:00	0	0	0	0	1	1	19	52	71	41	12	1	0	198
19:15	0	0	0	0	0	1	24	57	68	18	9	2	0	179
19:30	0	0	0	0	0	7	24	38	52	34	10	1	0	166
19:45	0	0	0	0	0	3	9	50	54	33	11	1	0	161
20:00	0	0	0	0	0	4	20	53	46	29	2	0	1	155
20:15	0	0	0	0	1	2	11	33	37	26	5	1	0	116
20:30	0	0	0	0	0	5	16	41	49	21	1	0	0	133
20:45	0	0	0	0	1	4	17	31	28	21	10	1	0	113
21:00	0	0	0	0	0	1	6	41	31	27	5	0	0	111
21:15	0	0	0	0	0	0	7	24	33	14	3	0	0	81
21:30	0	0	0	0	0	5	12	27	18	11	3	0	0	76
21:45	0	0	0	1	1	5	11	16	16	9	1	0	0	60
22:00	0	0	0	0	0	1	12	23	26	8	1	0	0	71
22:15	0	0	0	0	0	0	8	13	23	3	4	0	0	51
22:30	0	0	0	0	0	0	6	16	16	7	1	0	0	46
22:45	0	0	0	0	0	2	9	6	15	1	2	0	0	35
23:00	0	0	0	0	0	1	6	5	12	3	3	0	0	30
23:15	0	0	0	1	0	3	2	9	17	7	0	0	0	39
23:30	0	0	0	0	0	1	0	8	3	2	2	0	0	16
23:45	1	0	0	0	0	0	5	9	11	2	2	0	0	30
Totals	9	5	1	16	71	368	1533	4104	5046	2843	736	89	12	14833
% of Totals	0%	0%	0%	0%	0%	2%	10%	28%	34%	19%	5%	1%	0%	100%

AM Volumes	3	2	1	10	49	176	582	1505	1887	1131	286	35	7	5674
% AM	0%	0%	0%	0%	0%	1%	4%	10%	13%	8%	2%	0%	0%	38%
AM Peak Hour	01:30	11:45	07:00	06:00	09:15	07:45	11:15	07:45	07:15	07:15	07:15	06:30	07:45	07:30
Volume	1	2	1	3	12	39	118	335	380	258	60	8	3	1143
PM Volumes	6	3	0	6	22	192	951	2599	3159	1712	450	54	5	9159
% PM	0%	0%		0%	0%	1%	6%	18%	21%	12%	3%	0%	0%	62%
PM Peak Hour	12:45	12:00		12:30	12:30	16:00	16:30	16:30	16:30	16:30	17:00	15:45	17:15	16:30
Volume	2	1		2	8	38	131	374	473	251	71	12	2	1338

Directional Peak Periods	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	2109	14%	1704	11%	2505	17%	8515	57%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Douglas Rd	Summary	45	51	51	58	61	14833

Prepared by National Data & Surveying Services

SPEED

Douglas Rd E/O Sunrise Blvd

Day: Tuesday
Date: 8/17/2021

City: Rancho Cordova
Project #: CA21_070129_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	5	8	16	19	13	6	3	0	**70**
01:00	0	0	0	0	0	2	3	13	6	6	1	0	1	**32**
02:00	1	0	0	0	0	0	3	10	5	3	3	0	0	**25**
03:00	0	0	0	0	0	0	4	6	15	9	3	1	1	**39**
04:00	0	0	0	0	1	1	9	10	21	27	6	1	1	**77**
05:00	0	1	0	0	3	8	25	73	108	67	27	3	1	**316**
06:00	0	0	0	3	9	23	91	181	240	146	31	4	0	**728**
07:00	0	0	1	0	8	29	92	291	374	243	55	6	0	**1099**
08:00	1	0	0	1	11	38	100	292	325	190	45	4	3	**1010**
09:00	0	0	0	3	7	22	69	208	256	138	30	3	0	**736**
10:00	0	0	0	1	5	21	75	201	237	140	42	6	0	**728**
11:00	1	1	0	2	5	27	103	204	281	149	37	4	0	**814**
12:00 PM	0	1	0	0	5	23	108	242	291	151	41	8	1	**871**
13:00	2	1	0	2	4	16	91	221	282	173	37	4	0	**833**
14:00	0	0	0	1	2	20	87	281	341	208	57	5	0	**1002**
15:00	2	0	0	1	2	16	120	298	371	182	57	4	0	**1053**
16:00	0	0	0	0	3	38	116	358	429	235	55	11	0	**1245**
17:00	1	0	0	0	2	11	104	370	452	237	71	11	1	**1260**
18:00	0	1	0	0	0	22	101	277	367	209	45	4	2	**1028**
19:00	0	0	0	0	1	12	76	197	245	126	42	5	0	**704**
20:00	0	0	0	0	2	15	64	158	160	97	18	2	1	**517**
21:00	0	0	0	1	1	11	36	108	98	61	12	0	0	**328**
22:00	0	0	0	0	0	3	35	58	80	19	8	0	0	**203**
23:00	1	0	0	1	0	5	13	31	43	14	7	0	0	**115**
Totals	**9**	**5**	**1**	**16**	**71**	**368**	**1533**	**4104**	**5046**	**2843**	**736**	**89**	**12**	**14833**
% of Totals	0%	0%	0%	0%	0%	2%	10%	28%	34%	19%	5%	1%	0%	100%

AM Volumes	3	2	1	10	49	176	582	1505	1887	1131	286	35	7	5674
% AM	0%	0%	0%	0%	0%	1%	4%	10%	13%	8%	2%	0%	0%	38%
AM Peak Hour	02:00	05:00	07:00	06:00	08:00	08:00	11:00	08:00	07:00	07:00	07:00	07:00	08:00	07:00
Volume	1	1	1	3	11	38	103	292	374	243	55	6	3	1099
PM Volumes	6	3	0	6	22	192	951	2599	3159	1712	450	54	5	9159
% PM	0%	0%		0%	0%	1%	6%	18%	21%	12%	3%	0%	0%	62%
PM Peak Hour	13:00	12:00		13:00	12:00	16:00	15:00	17:00	17:00	17:00	17:00	16:00	18:00	17:00
Volume	2	1		2	5	38	120	370	452	237	71	11	2	1260

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Speeds	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%	Volume	⟷	%
	2109		14%	1704		11%	2505		17%	8515		57%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Douglas Rd	Summary	45	51	51	58	61	14833

Prepared by NDS/ATD

Project #: CA21_070129_001 **City:** Rancho Cordova

Location: Douglas Rd E/O Sunrise Blvd **Date:** 8/17/2021





3: Anatolia MP E & Douglas Road Performance by movement

Movement	EBT	EBR	WBL	WBT	NBR	All
Denied Del/Veh (s)	0.1	0.1	2.4	0.1	0.1	0.3
Total Del/Veh (s)	0.7	0.2	6.7	0.4	3.0	1.1

Intersection: 3: Anatolia MP E & Douglas Road

Movement	EB	EB	EB	WB	NB
Directions Served	T	T	TR	L	R
Maximum Queue (ft)	3	5	8	84	57
Average Queue (ft)	0	0	0	34	26
95th Queue (ft)	2	3	5	65	52
Link Distance (ft)	1245	1245	1245		202
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				250	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 11 - 26 - 2021

DIST ____ CO ____ RTE ____ PM ____

CALC ____ DATE ____

CHK ____ DATE ____

Major St: DOUGLAS ROAD — Critical Approach Speed 60 mph

Minor St: ANATOLIA MARKET PLACE (E) — Critical Approach Speed ____ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☒
or
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)

☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☐ NO ☒
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or More		8:00 AM	NOON	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	Hour
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	479	468	429	511	593	712	778	654	
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	32	32	30	34	36	40	39	36	

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or More										Hour
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	473	462	425	509	589	708	773	647	
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	26	26	26	28	32	33	31	27	

Combination of Conditions A & B SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes ☐ No ☒
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

EXISTING PLUS CHEVRON

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED* YES ☐ NO ☒**

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	Hour			
Both Approaches - Major Street		X	593	712	778	654
Higher Approach - Minor Street	X		36	40	39	36

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☒

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☒**
(Part A or Part B must be satisfied)

PART A **SATISFIED YES ☐ NO ☒**

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☒
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☐ No ☐

PART B **SATISFIED YES ☐ NO ☒**

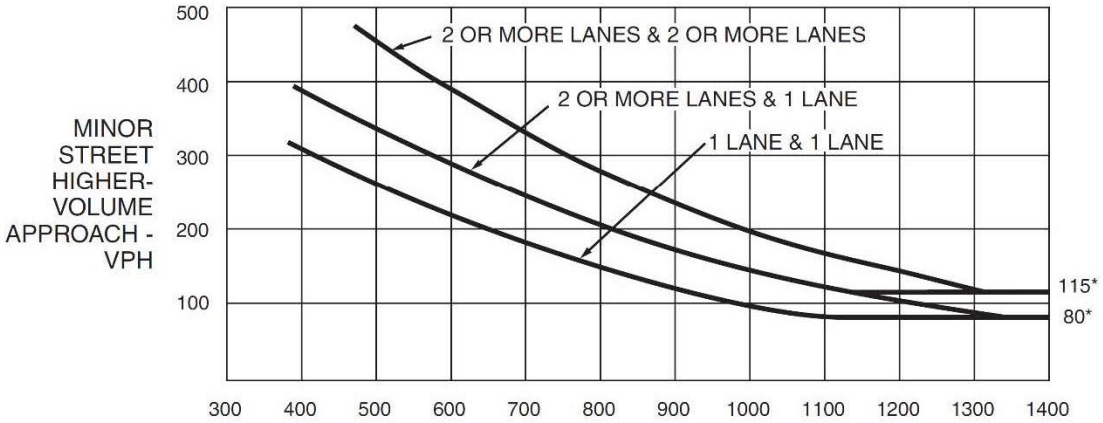
APPROACH LANES	One	2 or More	5:00 PM Hour
Both Approaches - Major Street		X	778
Higher Approach - Minor Street	X		39

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☐
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

EXISTING PLUS CHEVRON

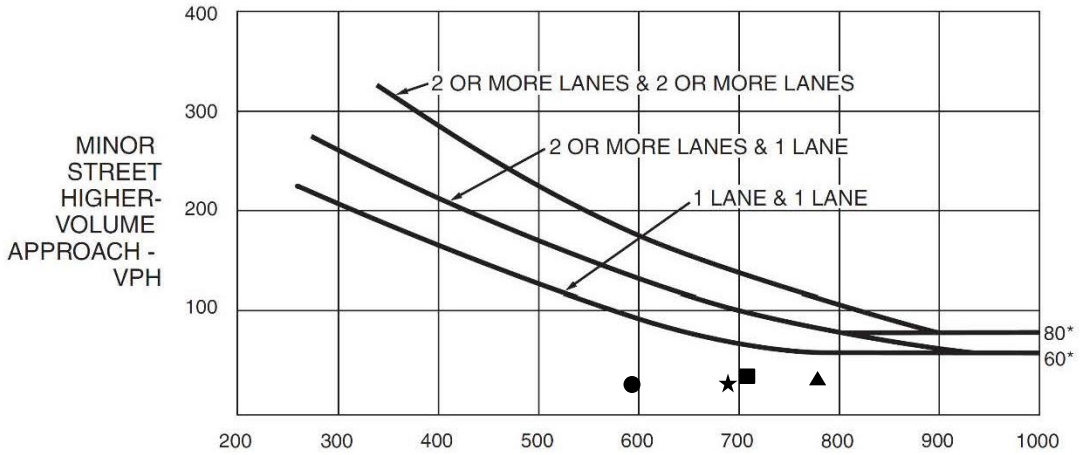
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

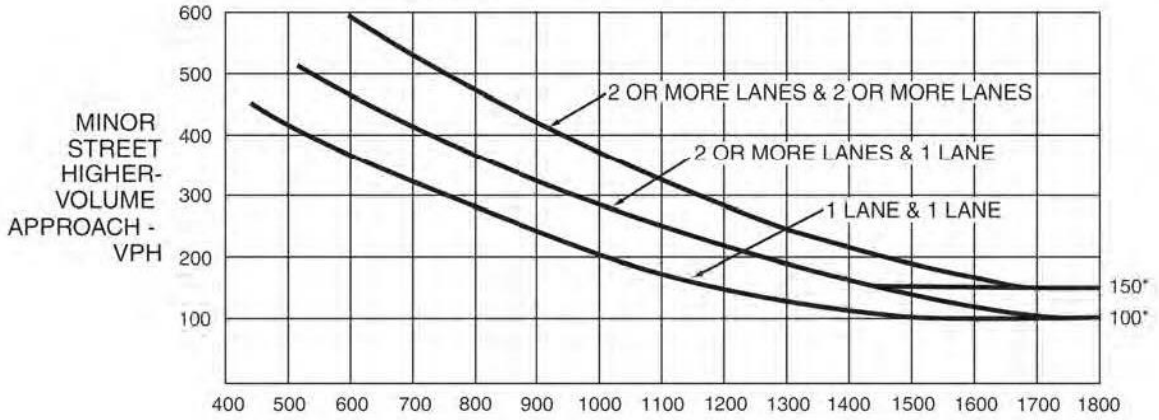


*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

EXISTING PLUS CHEVRON

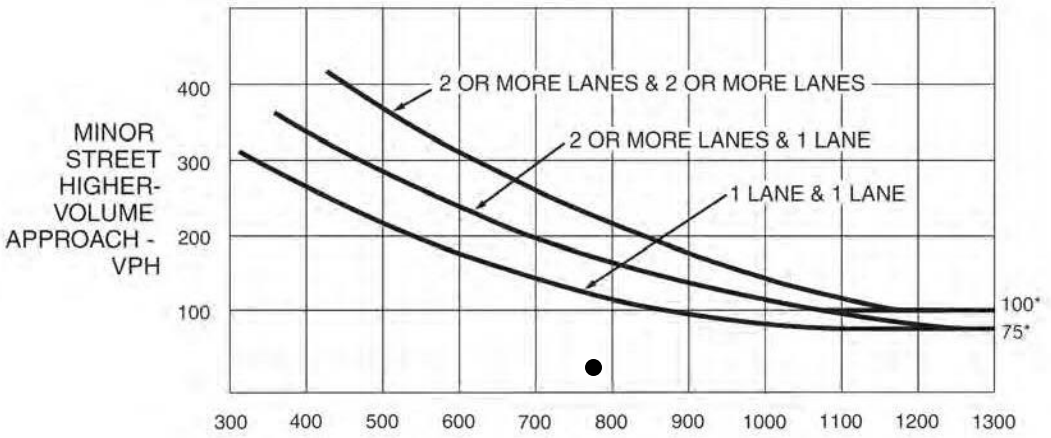
3:00 PM (●): MAJOR 593, 36
4:00 PM (■): MAJOR 712, 40
5:00 PM (▲): MAJOR 778, 39
6:00 PM (★): MAJOR 654, 36

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.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

EXISTING PLUS CHEVRON STATION

PM (●) : 778, 39

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 11 - 26 - 2021

DIST ____ CO ____ RTE ____ PM ____

CALC ____ DATE ____

CHK ____ DATE ____

Major St: DOUGLAS ROAD — Critical Approach Speed 60 mph

Minor St: ANATOLIA MARKET PLACE (E) — Critical Approach Speed ____ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☒
or
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)

☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☐ NO ☒
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☒ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				11:00 AM	NOON	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	Hour
	U	R	U	R									
APPROACH LANES	1		2 or More										
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	450	508	464	542	621	739	807	682	
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	118	134	108	96	98	101	103	101	

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or More										Hour
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	450	508	464	542	621	739	807	682	
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	118	134	108	96	98	101	103	101	

Combination of Conditions A & B SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes ☐ No ☒
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

EXISTING PLUS PHASE I

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED* YES ☐ NO ☒**

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	Hour			
Both Approaches - Major Street		X	621	739	807	682
Higher Approach - Minor Street	X		98	101	103	101

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☒

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☒**
(Part A or Part B must be satisfied)

PART A **SATISFIED YES ☐ NO ☒**

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☒
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☒ No ☐

PART B **SATISFIED YES ☐ NO ☒**

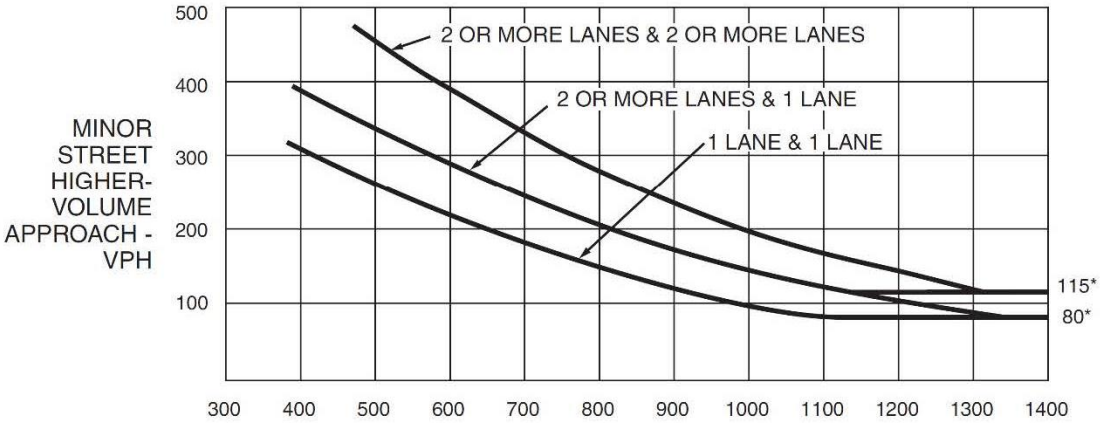
APPROACH LANES	One	2 or More	5:00 PM Hour
Both Approaches - Major Street		X	807
Higher Approach - Minor Street	X		97

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☐
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

EXISTING PLUS PHASE I

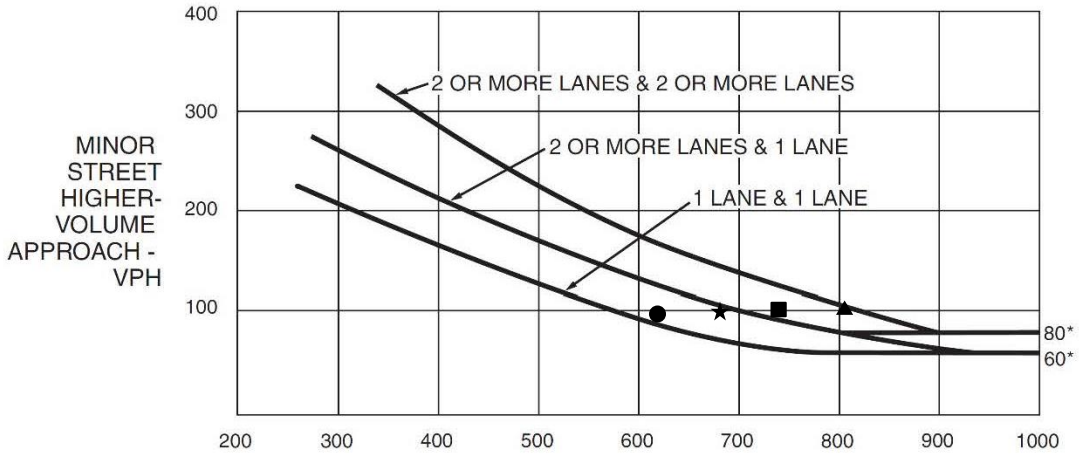
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

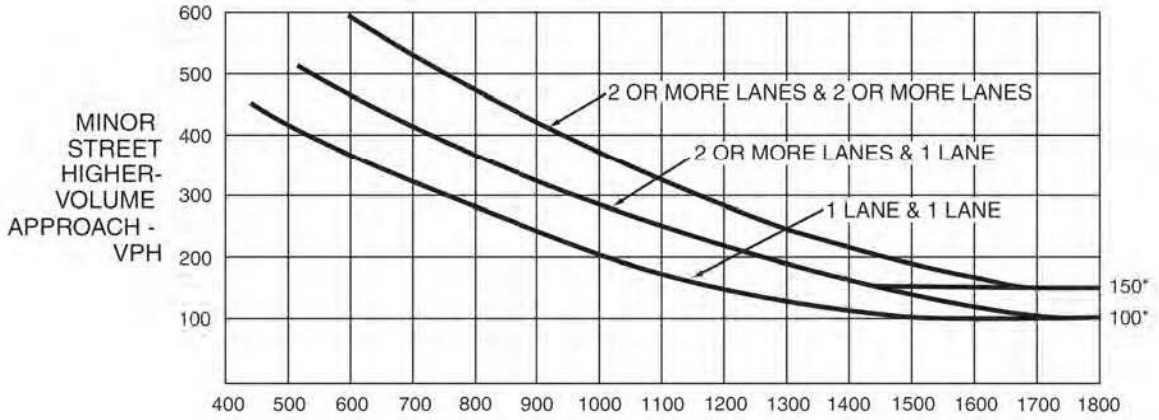


*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

EXISTING PLUS PHASE I

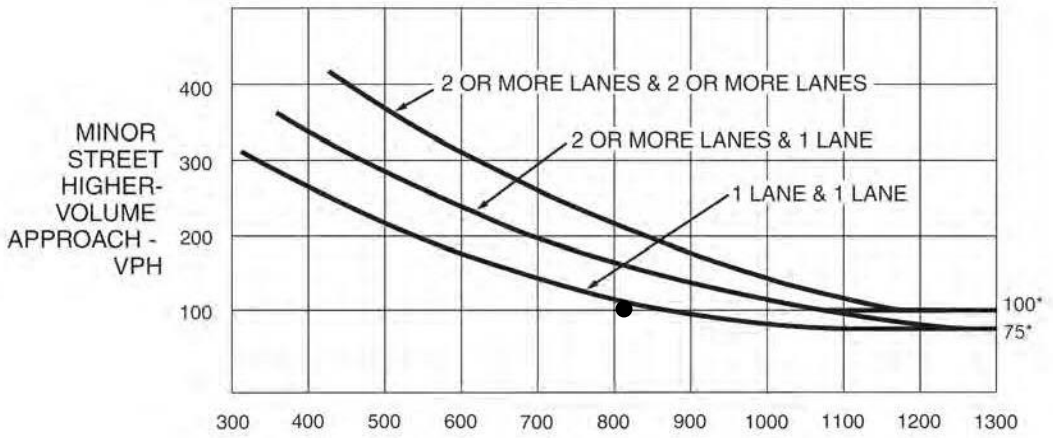
3:00 PM (●): MAJOR 621, 98
4:00 PM (■): MAJOR 739, 101
5:00 PM (▲): MAJOR 807, 103
6:00 PM (★): MAJOR 682, 101

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.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

EXISTING PLUS PHASE I

5:00 PM (●) : 807, 103

		Timing/ Implementation	Enforcement/ Monitoring
General Conditions			
1.	The approved entitlement is for a Conditional Use Permit and Minor Design Review for the construction of a 1,002 SF drive-through coffee kiosk (Dutch Bros. Coffee) located within the Anatolia Marketplace shopping center on the southeast corner of Sunrise Boulevard and Douglas Road. The project is to be completed as described in the City Council Staff Report dated March 22, 2022 with Project Plans **Exhibit A** and conditions herein, for Project No. PLND-1021-0013.	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 challenging the validity of any environmental or other documentation submitted by the applicant related to approval of this permit. Applicant further agrees to provide a defense for the City in any such action.	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.	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.	On-Going	Finance
5.	Signage is not approved with this permit. All signage shall comply with the City of Rancho Cordova Zoning Code.	On-Going	Planning
6.	Noise sources associated with construction, repair, remodeling, demolition, paving and/or grading of any real property must adhere to the development standards outlined within the City's Noise Element, RCMC 6.68 and RCMC 16.18.1407(F).	On-Going	Planning/ Building/Code Enforcement

		Timing/ Implementation	Enforcement/ Monitoring
7.	In the event of the encounter of subsurface materials suspected to be of an archaeological or paleontological nature or if any human remains are found, all grading and/or excavation shall cease, the find shall be left untouched, and the City Planning Department shall be immediately notified. This requirement shall be noted on the Grading and Building Plans, prior to issuance of permits. A qualified professional archaeologist certified by the Register of Professional Archaeologists or paleontologist with a degree(s) in paleontology or geology, to evaluate and make recommendations as to disposition, mitigation and/or salvage. The recommendation shall be implemented before work may proceed.	On-going	Planning/ Building
8.	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.	On-Going	Public Works
9.	All storm drain facilities within private lots shall be privately maintained and shall be clearly labeled as “private” in the improvement plans.	On-Going	Public Works
10.	Applicant shall comply with all applicable conditions of approval for the Anatolia Marketplace Tentative Map (DD9966)	On-Going	Public Works
11.	Operator shall provide adequate staffing and operational mitigation measures to avoid excessive traffic queuing at the drive thru that disrupts either on-site circulation in the commercial center or off-site circulation on City roadways.	On-Going	Public Works/ Planning
12.	This Conditional Use Permit, Minor Design Review, and Exception shall expire 3 years from the date of approval, unless: A. Substantial construction of the permitted use/design 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.	On-Going	Planning

		Timing/ Implementation	Enforcement/ Monitoring
	B. An extension is filed for and approved in accordance with RCMC 23.110.070 (extension of land use entitlement).		
13.	SMUD has existing overhead 69kV facilities along Douglas Road 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.	On-Going	SMUD
14.	SMUD has existing underground 12kV facilities along Douglas Road that will need to remain. The Applicant shall be responsible for maintaining 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.	On-Going	SMUD
15.	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.	On-Going	SMUD
16.	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 within said easement that unreasonably interferes with those needs.	On-Going	SMUD
17.	All projects are subject to Sacramento Metro Air District rules at the time of construction. A complete listing of current rules is available at www.airquality.org or by calling 916-874-4800.	On-Going	Sacramento Metro Air Quality
18.	Water supply will be provided by the Sacramento County Water Agency.	On-Going	Sacramento County Water
19.	Provide public water service to each building.	On-Going	Sacramento County Water

		Timing/ Implementation	Enforcement/ Monitoring
Prior to Approval of Improvement Plans			
20.	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.	Prior to Approval of Improvement Plans	SMUD
21.	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.	Prior to Approval of Improvement Plans	SMUD
22.	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.	Prior to Approval of Improvement Plans	SMUD
23.	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	Prior to Approval of Improvement Plans	SMUD
24.	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.	Prior to Approval of Improvement Plans	SMUD
25.	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.	Prior to Approval of Improvement Plans	SMUD
26.	The Applicant shall dedicate and provide all-weather vehicular access for service vehicles that are up to 26,000 pounds. At a minimum: (a) the drivable surface shall be 20-feetwide: and (b) all SMUD underground equipment and appurtenances shall be within 15-feet from the drivable surface.	Prior to Approval of Improvement Plans	SMUD
27.	The project has an approved Level 3 sewer study. Any changes to the approved study may require an addendum.	Prior to Submittal of Improvement Plans	SASD

		Timing/ Implementation	Enforcement/ Monitoring
28.	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. Field modifications to new or existing precast manhole bases are not allowed.	Prior to Approval of Improvement Plans	SASD
29.	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.	Prior to Approval of Improvement Plans	SASD
30.	Sewer easements may be required to service this parcel. 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 right-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.	Prior to Approval of Improvement Plans	SASD
31.	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.	Prior to Approval of Improvement Plans	SASD
32.	Permanent structures, walls, signs and footings will not be permitted within the existing SASD easement area unless express written permission is obtained from SASD.	Prior to Approval of Improvement Plans	SASD
33.	All water lines shall be located within a public right-of-way or within easements dedicated to Sacramento County Water. Easements shall be reviewed and approved by Sacramento County Water Agency prior to Improvement Plan approval or Final Map approval.	Prior to Approval of Improvement Plans	Sacramento County Water

		Timing/ Implementation	Enforcement/ Monitoring
34.	Destroy all abandoned wells on the proposed project site in accordance with the requirements of the Sacramento County Environmental Health Division. Clearly show all abandoned/destroyed wells on the improvement plans for the project. Prior to abandoning any existing agricultural wells, applicant shall use water from agricultural wells for grading and construction.	Prior to Approval of Improvement Plans	Sacramento County Water
35.	No water supply mains shall be located under structures such as box culverts and bridges. If the project will build box culverts and bridges to the ultimate width, water mains shall cross above ground attached to the side of the structures. Structures shall be designed accordingly. If the ultimate width is not being built, water mains shall cross underground routed outside of and around the ultimate structure footprint. 15-foot wide water main easements shall be dedicated for the portion outside of ROW. The crossing shall be be approved by he Agency Engineer. Underground crossings and attachments to structures shall be included in the environmental impact analysis. Additional environmental permitting and other associated costs will be at applicant's expense.	Prior to Approval of Improvement Plans	Sacramento County Water
36.	Number, size, and location of driveways are subject to approval by the Public Works Department	Prior to Approval of Improvement	Public Works
37.	Applicant shall photo-document the condition of adjacent streets, sidewalks and infrastructure to the satisfaction of the Public Works Department.	Prior to Approval of Improvement Plans	Public Works
38.	A final landscape plan shall be submitted to the Planning Department 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	Prior to Approval of Improvement Plans	Public Works/ Planning

		Timing/ Implementation	Enforcement/ Monitoring
	• Permeability test for LID facilities' locations • Soil media specifications (LID features)		
39.	All landscape strips, medians, etc. that contain trees shall be designed to include continuous root barriers.	Prior to Approval of Improvement Plans	Public Works
40.	**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.	Prior to Approval of Improvement Plans	Public Works
41.	**Stormwater Quality- Post Construction** The improvement plans shall incorporate all applicable post construction stormwater quality measures; including source control (waste management areas, River Friendly Landscape, 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. In addition, a maintenance covenant maybe required for applicable stormwater quality measures, as detailed in Appendix B of the Stormwater Quality Design Manual for the Sacramento Region.	Prior to Approval of Improvement Plans	Public Works
42.	**Stormwater Quality– During Construction:** Compliance with the City's Improvement Standards (Section 11) and Land Grading and Erosion Control Ordinance is required.	Prior to Approval of Improvement Plans	Public Works
43.	The Erosion and Sediment Control plans 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.	Prior to Approval of Improvement Plans	Public Works

		Timing/ Implementation	Enforcement/ Monitoring
44.	**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 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 submittal.	Prior to Approval of Improvement Plans	Public Works
45.	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.	Prior to Approval of Improvement Plans	Public Works
46.	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.	Prior to Approval of Improvement Plans	Public Works
47.	All storm drain facilities within private lots shall be privately maintained and shall be clearly labeled as "private" in the improvement plans.	Prior to Approval of Improvement Plans	Public Works
48.	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 to 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.***	Prior to Approval of Improvement Plans	Sacramento Metro Fire
49.	Show the design for an approved fire apparatus turnaround. The fire apparatus turnaround shall conform to Sacramento Metro Fire Districts, Fire Prevention Standard #3. Fire access turn-around shall be located within 50 feet of the end of the access roadway.	Prior to Approval of Improvement Plans	Sacramento Metro Fire

		Timing/ Implementation	Enforcement/ Monitoring
50.	Show on the plans 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.	Prior to Approval of Improvement Plans	Sacramento Metro Fire
51.	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.”	Prior to Approval of Improvement Plans	Sacramento Metro Fire
52.	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, (including foundations) 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.	Prior to Approval of Improvement Plans	Sacramento Metro Fire
53.	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.	Prior to Recordation of the Final Map	Sacramento Metro Fire
54.	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 Recorders Office having jurisdiction. The roadway maintenance agreement shall include the following: a) Provisions for the necessary repair and maintenance of the roadway surface	Prior to Recordation of the Final Map	Sacramento Metro Fire

		Timing/ Implementation	Enforcement/ Monitoring
	b) Removal of vegetation overgrowing the roadway and infringing on the roadway clear vertical height of thirteen fee 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) Provisions for the necessary repair and maintenance of vehicle and pedestrian access gates and opening systems		
Prior to Issuance of Building Permits			
55.	Construction plans must include all windows and final architectural element details to be reviewed and approved by the Planning Department. This includes all building fixtures, exterior lighting, walkway lighting, parking lot lighting, and street-lights on the Site, Utility, Landscape, and Building Plans, prior to the issuance of any permits. The height and style of fixtures shall be shown. Energy-saving fixtures shall be used and noted on the plans and all illumination shall be installed in a manner that is glare shielded and directed away from adjacent properties and right-of-ways.	Prior to Issuance of Building Permits	Planning
56.	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 • All facilities, including but not limited to, sidewalk, driveways, etc. shall be upgraded to meet current ADA requirements and City Standards. • Utility laterals • Replacement of damaged sidewalk and curb and gutter along property frontage to the satisfaction of The Public Works Department. Sidewalk panels shall be replaced to the nearest joint • Replacement of damaged pavement along property frontage to the satisfaction of The Public Works Department • Public improvement plans shall clearly delineate all transitions to existing improvements • All improvements shall be designed and constructed to the satisfaction of the Public Works Department.	Prior to Issuance of Building Permits	Public Works

		Timing/ Implementation	Enforcement/ Monitoring
57.	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 utilities (e.g., Gas, Telephone, etc.)	Prior to Issuance of Building Permits	SMUD
58.	The Applicant shall provide separate SMUD service points to each parcel to the satisfaction of SMUD	Prior to Issuance of Building Permits	SMUD
59.	The owner must contact the 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	Prior to Issuance of Building Permits	SASD
60.	The Final Design of the project shall include bicycle parking as required by Chapter 23.719.110 and shall be designed according to the APBP Bicycle Parking Guidelines.	Prior to Issuance of Building Permits	Planning/ Air Quality
61.	The applicant shall meet the following: Civil Site Plans and Architectural Plans shall be submitted and approved prior to Final Building Permit being issued.	Prior to Issuance of Final Building Permit	Fire
62.	Rooftop equipment (HVAC, meters, refrigeration equipment, plumbing lines, ductwork and transformers), shall be screened from view on all sides with materials architecturally compatible with the main structure. Screening details shall be shown on the Building Plans and submitted for review and approval by the Planning Department, prior to the issuance of Building Permits and installed prior to occupancy approval.	Prior to Issuance of Building Permits	Planning
63.	The applicant shall meet the following: Civil Site Plans and Architectural Plans shall be submitted and approved prior to Final Building Permit being issued.	Prior to Issuance of Building Permits	Sacramento Metro Fire
64.	Where a bridge or elevated surface is part of the fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17	Prior to Issuance of Building Permits	Sacramento Metro Fire
65.	Prior to issuance of building permits require water intensive commercial and industrial building permit applicants to conduct a water use efficiency review and submit the finding sin required environmental documentation for the project.	Prior to Issuance of Building Permits	Sacramento County Water
66.	Prior to the issuance of building permits require efficient cooling systems, re-circulating pumps for fountains and pods, and water recycling systems for vehicle washing as a condition of service.	Prior to Issuance of Building Permits	Sacramento County Water

		Timing/ Implementation	Enforcement/ Monitoring
67.	Prior to the issuance of any building permits for the project, the project developer/owner shall pay Zone 40 development fees applicable at the time of building permit issuance in accordance with Title 4 of the Sacramento County Water Agency (SCWA) Code.	Prior to Issuance of Building Permits	Sacramento County Water
68.	Prior to the issuance of any building permits for the project, the project shall confirm to the specific provisions of the City of Rancho Cordova Landscaping Ordinance (Municipal Code Title 23, Chapter 23.716).	Prior to Issuance of Building Permits	Sacramento County Water
Prior to Final inspection/Certificate of Occupancy			
69.	Install improvements per the approved Public Works plans and to the satisfaction of the Public Works Department.	Prior to Final Building Inspection of the first unit	Public Works
70.	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, or equivalent to the satisfaction of the City Engineer shall be submitted and approved by the Public Works Department.	Prior to Final Building Inspection	
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. 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.	Prior to Final Building Inspection	Public Works
72.	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.	Prior to Granting Final Occupancy	Sacramento Metro Fire

ADVISORY:

1. Sacramento Metro Fire
    a. Any gate shall be installed in accordance with The County Emergency Access Gates and Barriers Standard. Plan submittal is required prior to installation.

2. Sacramento Area Sewer District (SASD)
    a. SASD Design Standards and Specifications require minimum 6-inch lower laterals for commercial and industrial buildings.
    b. Construction of a grease trap or a sand oil separator may be required. The Applicant must verify with the applicable jurisdiction's building department.
    c. If the proposed garbage enclosure will contain a drain to the sewer, it must be covered.
    d. Any use of SASD sewer easements, which is not compatible or interferes with the construction, reconstruction, operation, maintenance, or repair of SASD sanitary sewer(s), must not be allowed. Each proposed use must be reviewed and approved in writing by the District Engineer prior to the use of the easement by the Grantor. This includes landscaping.
3. Sacramento Air Quality
    a. Where feasible, it is recommended that any new or repaved areas have an albedo of at least 0.25-0.5. It is also recommended that the roof on the new structure utilize a certified cool roof material. For parking lots where cool pavements or tree shading are not feasible, please consider solar photovoltaic shad structures to reduce urban heat islands, generate renewable energy, and provide shading to parked vehicles.


1" = 150'
106
12
31
1" = 150' FREE
DOUGLAS
DOUGLAS
SUNRISE BL.
ARISTOTLE
CIR
ARISTOTLE
SOCRATES
PLATO
HERODIAN DR.
R.M.355-10
P.M.242-11
67
3
67
9
67
10
67
23
1.70±Ac.
35,414±Ac.
1.11±Ac.
1.71±Ac.
41,861±Ac.
1.04±Ac.
2.43±Ac.
1.38±N.
1.71±N.
42,819±N.
1.29±N.
1.27±N.
3.38±N.
1.19±N.
1.85±N.

067-2370-002
ANATOLIA MARKETPLACE LLC
7700 COLLEGE TOWN DR #118
SACRAMENTO CA 95826

067-0030-071
CITY OF RANCHO CORDOVA
2729 PROSPECT PARK DR
RANCHO CORDOVA CA 95670

067-0920-001
QUINONES DAVID MIRAMONTES/RANDY D SCOTT
3930 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-002
SANI/RASHMI KUMAR
3932 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-027
MUTHUBALAJI RAMKUMAR/DHIVYA VEDAGIRI RAJALU
11775 SOCRATES WAY
RANCHO CORDOVA CA 95742

067-0920-028
CHARLETTE BRANNON
11773 SOCRATES WAY
RANCHO CORDOVA CA 95742

067-0920-029
ROMEO SALVACION
11772 SOCRATES WAY
RANCHO CORDOVA CA 95742

067-0920-030
KIMBERLY/ROBERT MCCRICKARD
11774 SOCRATES WAY
RANCHO CORDOVA CA 95742

067-0920-055
SHAWN/MICHELLE BLAZIUS
2840 ROYAL DR
CAMERON PARK CA 95682

067-0920-056
CARMELITA CRISTINA/EDWARD SANTOS ALIG
11773 PLATO WAY
RANCHO CORDOVA CA 95742

067-0920-076
BYRON/RIKA GILES
3903 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-077
JENNY JIANG
4333 GRAFTON CIR
MATHER CA 95655

067-0920-077
RESIDENT
3905 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-078
LUIS R/LETICIA VILCHEZ
3907 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-079
MICHAEL DAVID/NICOLE CELINE SEPULVEDA SMITH
3909 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-080
WING TANG
3911 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-081
MARISA MURPHY/JASON BRAGADO
3913 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-082
PAUL/RAYCHEL BEASLEY
3915 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-083
ANDREW ZAMORA
3917 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-084
ESTHER N/ANDREW T VAN ANTWERP
3919 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-085
DEVON J/TIFFANY L ENGLISH
3921 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-086
MARQUISE/DANIELLE SCOTT
3923 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-087
GURUMURTHY KAMALANATHAN/VANI GURUMURTHY
3925 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-088
MENDOZA 2021 FAMILY TRUST
3927 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-089
MICHELE KOEHLER
3929 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-090
MUHAMED ABDULARHMAN NASSER EL GEREREY
3931 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-091
TIMOTHY B/JENNIFER L SERVA
3933 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-0920-119,121
CORDOVA RECREATION AND PARK DISTRICT
2729 PROSPECT PARK DR #230
RANCHO CORDOVA CA 95670

067-0920-119
OCCUPANT
3901 ARISTOTLE CIR
RANCHO CORDOVA CA 95742

067-1050-001
SUNRIDGE LP(RALEYS) DS
325 W WASHINGTON ST #2148
SAN DIEGO CA 92103

067-1050-001
OCCUPANT
4030 SUNRISE BLVD
RANCHO CORDOVA CA 95742

067-1050-002
OCCUPANT
4010 SUNRISE BLVD #110
RANCHO CORDOVA CA 95742

067-1050-003
OCCUPANT
4026 SUNRISE BLVD
RANCHO CORDOVA CA 95742

067-2370-003
OCCUPANT
4001 SUNRISE BLVD
RANCHO CORDOVA CA 95742

067-2370-005
OCCUPANT
4021 SUNRISE BLVD
RANCHO CORDOVA CA 95742

072-0370-106
ALTA VISTA LLC
340 PALLADIO PKWY #521
FOLSOM CA 95630

067-1050-002
OCCUPANT
4010 SUNRISE BLVD #100
RANCHO CORDOVA CA 95742

067-1050-002
OCCUPANT
4010 SUNRISE BLVD #120
RANCHO CORDOVA CA 95742

067-1050-009
OCCUPANT
4000 SUNRISE BLVD
RANCHO CORDOVA CA 95742

067-2370-004
OCCUPANT
4011 SUNRISE BLVD
RANCHO CORDOVA CA 95742

067-2370-007
OCCUPANT
4045 SUNRISE BLVD
RANCHO CORDOVA CA 95742

072-0370-106
OCCUPANT
11682 WHITE ROCK RD
RANCHO CORDOVA CA 95742

067-1050-002,003,009
DS SUNRIDGE LP
325 W WASHINGTON ST #2148
SAN DIEGO CA 92103

067-1050-002
OCCUPANT
4010 SUNRISE BLVD #130
RANCHO CORDOVA CA 95742

067-2370-001,003,004,006-011
ANATOLIA MARKETPLACE LLC
7700 COLLEGE TOWN DR #118
SACRAMENTO CA 95826

067-2370-005
MCDONALDS UNITED STATES OF AMERICA LLC
PO BOX 182571
COLUMBUS OH 43218

067-2370-010
OCCUPANT
4031 SUNRISE BLVD
RANCHO CORDOVA CA 95742

MEMORANDUM

ITEM 11.1.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Darcy Goulart, Planning Manager

SUBJECT: **PROJECT SUNRISE MAJOR DESIGN REVIEW AND RIO DEL ORO PHASE 5 FINAL MAP – PROJECT NO. PLND-0821-0003: - LOCATED WITHIN RIO DEL ORO SPECIFIC PLAN PARCEL 71**

PROPERTY OWNERS:	**APPLICANT/DEVELOPER:**
Alta Vista LLC 340 Palladio Parkway, Suite 521 Folsom, CA 95630	Panattoni Development Company, Inc. 8775 Folsom Boulevard, Suite 200 Sacramento, CA 95826

PROJECT:	The Applicant is requesting a Major Design Review for a new 629,186 square foot single story warehouse distribution building with 132 docks doors, a mezzanine platform, offices, and site improvements, including landscaping, truck loading docks, trailer and associate parking. The request also includes a final map for Rio Del Oro Phase 5.
FILE:	PLND-0821-0003
LOCATION:	Located within Rio Del Oro Specific, known as Plan Parcel 71. Southwest corner of Future Rancho Cordova Parkway and International Drive, A portion of APN 072-0370-106-0000
APN:	A portion of 072-0370-106-0000
ZONING:	MP Industrial Office Park (RDOSP)

RECOMMENDATION

Adopt the Resolution for the Rio Del Ordo Phase 5 Final Map, Determine the Project Sunrise project Exempt from CEQA per Section 15183, consistent with the Community Plan, General Plan or Zoning for which an EIR was certified; and Adopt the Resolution for Project Sunrise Major Design Review.

RESULT OF RECOMMENDED ACTION

Adoption of the final map Resolutions will authorize the City to enter into Subdivision Improvement Agreement Contract No. 2022-37, guaranteeing the construction of public roads and utilities with Alta Vista, LLC and the recording of the final subdivision map creating commercial/industrial zoned lots, a neighborhood park, and a green belt located south of White Rock Road and east of Luyung Drive.

Adoption of the Resolution for the Project Sunrise Major Design Review for the construction of a new 629,186 sq. ft single story warehouse distribution building would allow the applicant to pursue necessary building permits for new construction.

BACKGROUND

On September 20, 2010, the City Council approved the Rio Del Oro (RDO) Specific Plan by adoption of Ordinance 14-2010. The City Council adopted Resolution 92-2010 certifying a Final Environmental Impact Report/Environment Impact Statement (State Clearinghouse #2003122057) for the RDO Specific Plan, pursuant to the California Environmental Quality Act (CEQA).

RIO DEL ORO PHASE 5 FINAL MAP

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 Large Lot Tentative Map on September 19, 2016. A Development Agreement was entered on December 6, 2010. The City and Elliott Homes executed an Amended and Restated Development Agreement on October 19, 2016. A copy of the final map, Attachment 3, and copy of the vicinity map, Attachment 4, are included with this staff report. Elliott Homes submitted a revision to their Large Lot Tentative Subdivision Map, Rio Del Oro on March 3, 2022. The revision to the tentative map was found to be in substantial compliance with the originally approved tentative map on March 9, 2022. The substantial compliance tentative map is included as Attachment 5.

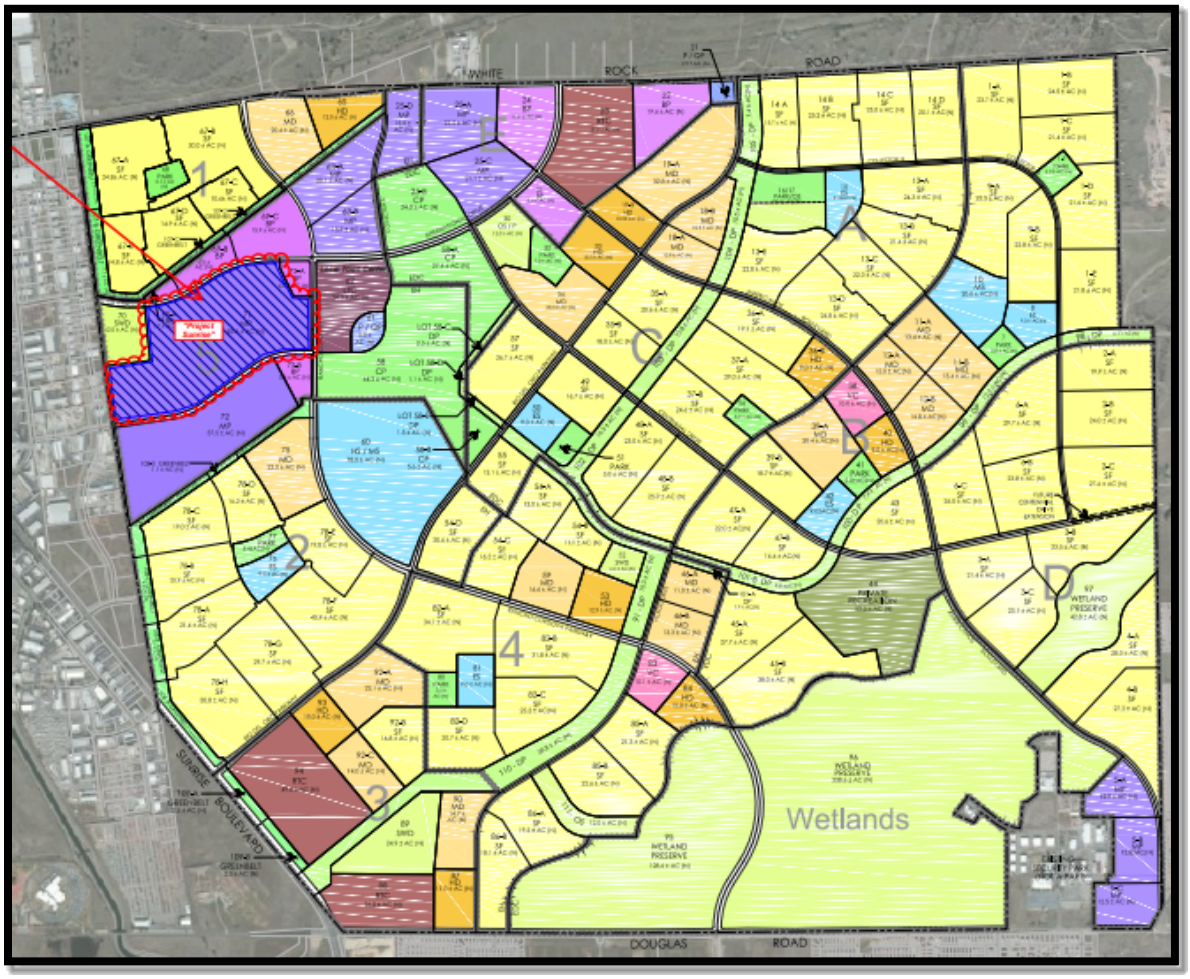
Roads are offered for dedication with this subdivision. Alta Vista, LLC has provided a performance and labor and material bond guaranteeing the construction of the public improvements. Wood Rodgers has waived the requirement for a bond to guarantee payment for setting the survey monuments with the subdivision. The soil report requirement has been satisfied by Wood Rodgers, dated November 2019.

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.

MAJOR DESIGN REVIEW

The project site is vacant and zoned MP Industrial Office Park within the Rio Del Oro Specific Plan. The project is referred to as Parcel 71 and is on the southwest corner of future extensions of Rancho Cordova Parkway and International Drive (**See Figure 1).**

Figure 1: Site Location



Surrounding Land Use:
The following Table provides the current use, General Plan/Community Plan, and zoning of the adjacent properties (**Table 1**).

Table 1: Surrounding Designations and Existing Uses

Location	Existing Use	General Plan Designation	Zoning Designation
North	Vacant	RDO SP	Business Park
East	Vacant	RDO SP	Business Park and Local Town Center
South	Vacant	RDO SP	Business Park and Industrial Office Park
West	Vacant	RDO SP	Greenbelt and Heavy Industrial

ANALYSIS

The Applicant is requesting a Major Design Review for a new 629,186 square foot single story warehouse distribution building with 132 docks doors, a mezzanine platform, 47,536 sf. ft. of

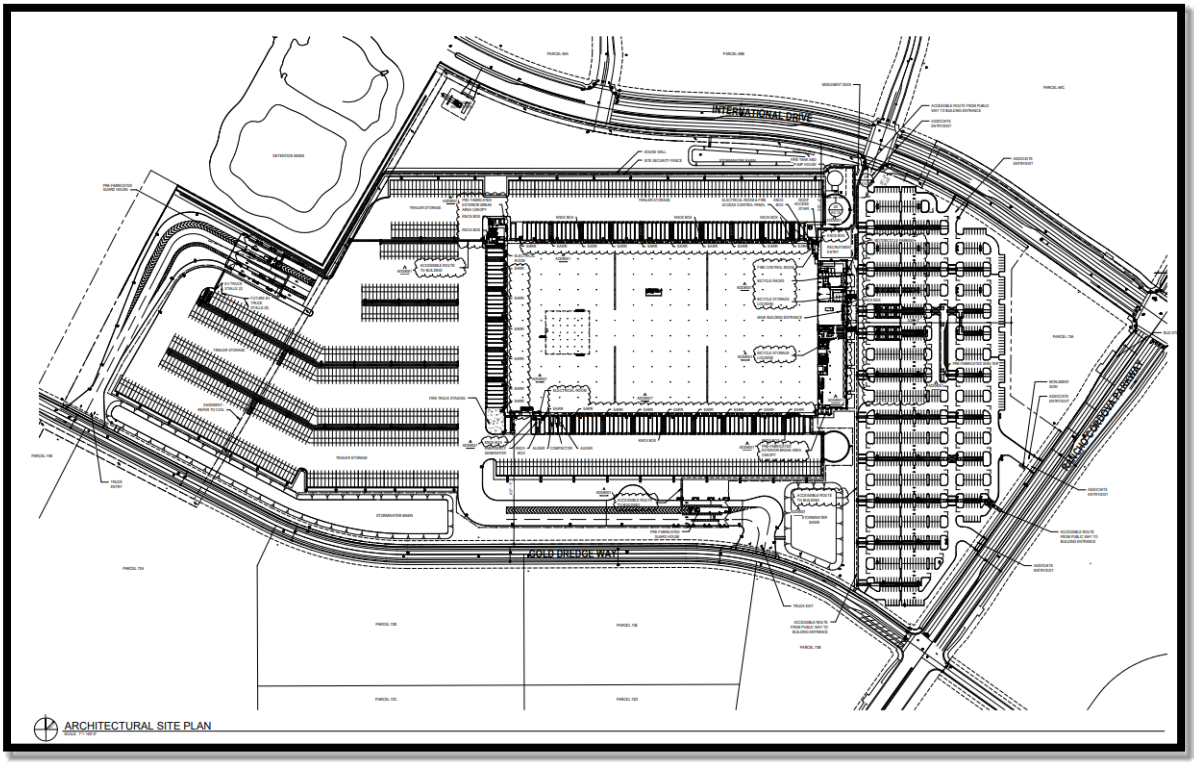
office space, and site improvements, including landscaping, truck loading docks, trailer and associate parking. Pursuant to Section 2.4.5.2 of the RDO Specific Plan Development Standards and Design Guidelines, a warehouse and/or local and regional distribution facility with multiple-bay shipping and receiving truck loading docks is a permitted use.

Site Plan Layout
As shown in the attached project plans and in Figure 2, the proposed building is situated centrally on the project site. Loading docks are included on three sides of the building, with the main entrance and employee parking facing Rancho Cordova Parkway. Numerous pedestrian pathways are provided to provide employees with the ability to travel to the buildings safely but to also walk from the building out to the site and onto the surrounding roadways.

The proposed project meets the Rio del Oro Specific Plan Design guidelines with the following features and amenities that benefit the built environment and protect environmental resources to improve the overall quality of life of the community:

- Automobile, bicycle, pedestrian, and transit connections are encouraged through adjacent bus connection, trail connections, on-site ride share and pedestrian shelters, bicycle parking, and employee showers.
- Landscaping and sound walls will help screen the facility from the adjacent community.
- Truck circulation has been designed to help reduce noise transmission to residential areas.
- Sign locations will respect the surrounding context to minimize any negative impact on the visual environment.
- Outdoor lighting fixtures will utilize LED to provide maximum energy efficiency as well as effective lighting.
- Light shielding will be utilized to limit light pollution and direct outdoor lighting downward and away from sensitive receptors.

- **Figure 2: Project Site Plan**



Traffic and Circulation:
Efficient and clearly marked on-site traffic circulation is a critical part of a project of this size and nature. With various trucks coming in and out of the site, the proposed onsite circulation pattern will minimize any conflicts. Trucks will enter the site off Gold Dredge Way near the western edge of the property. The trucks will then exit the site from another driveway further to the east on Gold Dredge Way. The truck traffic will head west on Gold Dredge, through the industrial area and out to Sunrise Blvd. Employees have various options to enter and exit the employee parking area, which includes access points on International Drive and Rancho Cordova Parkway. This area is separate from the truck staging, storage and loading areas of the site. Various infrastructure improvements and with timing necessary to provide multi-modal access to and from the site are included in the phasing plan, Attachment 10. Improvements include, but are not limited to, trails, sidewalks, International Drive, Rancho Cordova Parkway, Gold Dredge Drive, and preparation of existing roadways west of the proposed site as necessary to receive heavy truck traffic.

Additional traffic review was done by NV5, a consultant, that took into consideration the efforts done with the EIR for the RDO Specific Plan. Conclusion of the report stated:

> *Site access will be provided by six driveways. Four driveways are proposed for personal vehicles and two driveways are proposed for line-haul trucks. The driveways are anticipated to operate efficiently as side street stop-controlled intersections. A total of 3,532 daily trips will be generated by the site, with 132 (86 entering, 46 exiting) during the AM standard peak hour and 510 (99 entering, 411 exiting) during the PM standard peak hour. The project is anticipated to be complete by 2023.*

Based upon their analysis, the following conclusions were made:

Build (2023)

- The proposed site is consistent with the Rio del Oro Specific Plan zoning.
- The addition of project traffic to the study network does not result in any intersections operating at a Level of Service worse that D. All intersections perform similarly to No Build (2023), with expected increases in delays. Project driveways operate at LOS A.

Build+ (2023)

- With the exception of, White Rock Road at Sunrise Boulevard where LOS will drop to E during the evening peak hour, all intersections will continue to operate at acceptable levels of service.
- Sunrise Boulevard / White Rock Road: As the intersection of Sunrise Boulevard and White Rock Road experiences an increase in congestion over time, we recommend the City consider other improvement options such as dual right-turn lanes on the westbound approach to the intersection.
- Project driveways operate at LOS A.
- Street or driveway connections to the property opposite the Receiving Center on Gold Dredge Way should either be aligned with the Receiving Center's driveways or offset a minimum of 150 feet or a sufficient length to accommodate left-turn queues into all driveways.

Parking:
The project site provides a variety of parking stalls options for employees, including standard stall, accessible stalls, bicycle parking, van pool and numerous electric vehicle and future vehicle charging stations. There are also truck trailer parking areas for the trucks that would be coming into and out of the site.

Vehicle Parking Required (Rio Del Oro Specific Plan) - 1 / employee = 1,000 Spaces
Vehicle Parking Provided - 1,008 spaces
Accessible Parking Required - 20 + 1/100 over 1,000 = 21 spaces
Accessible Parking Provided - 24 spaces (8 van, 16 car)
Bicycle Parking Required (CALGreen 2019 x Rio Del Oro Air Quality & Emissions Reduction Plan) - .05 x 1,008 x 1.20= 61
Bicycle Parking Provided - 62 spaces
CLEAN AIR / VAN POOL / EV Required (Rio Del Oro Air Quality & Emissions Reduction Plan) - .10 x 1,008 = 101 spaces
CLEAN AIR / VAN POOL / EV Provided - 101 spaces
EVSE Installed Required (City of Rancho Cordova) = 2 spaces
EVSE Installed Provided - 2 spaces
EVSE Future Ready Required (CALGreen 2019) - .06 x 1,008 = 61 spaces
EVSE Future Ready Provided - 60 spaces + 2 installed = 62 total

Elevations:
The proposed elevations are typical of a tilt-up concrete industrial building. Various colors and elevation relief have been incorporated into the design to try and break up the long expansive walls. Additional materials include high performance glazing windows, metal and bronzed aluminum. Steps up and down in the roofline and pop out features help to break up the massing of the buildings. **(See Figures 3-5).**

Figure 3 – Colored Elevations

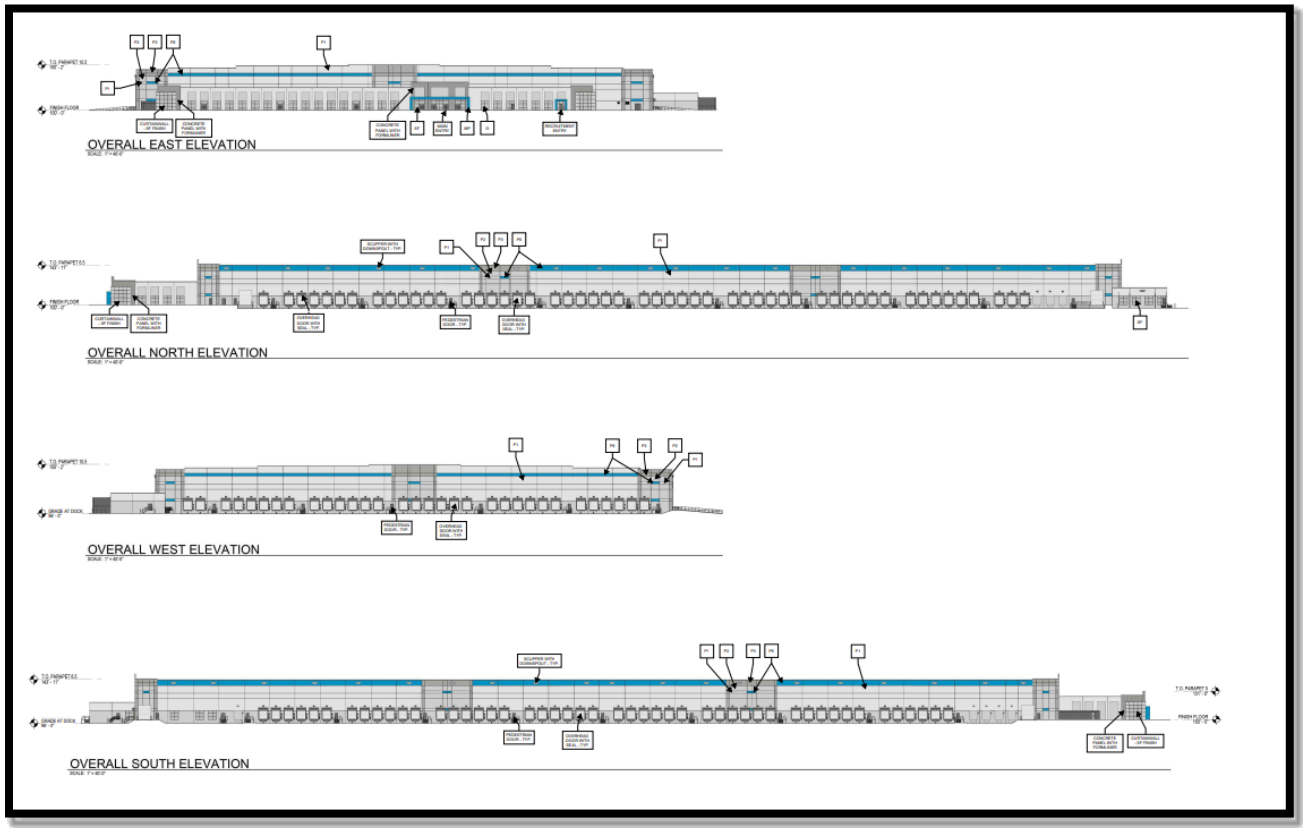


Figure 4 – Colored Renderings (View From International)



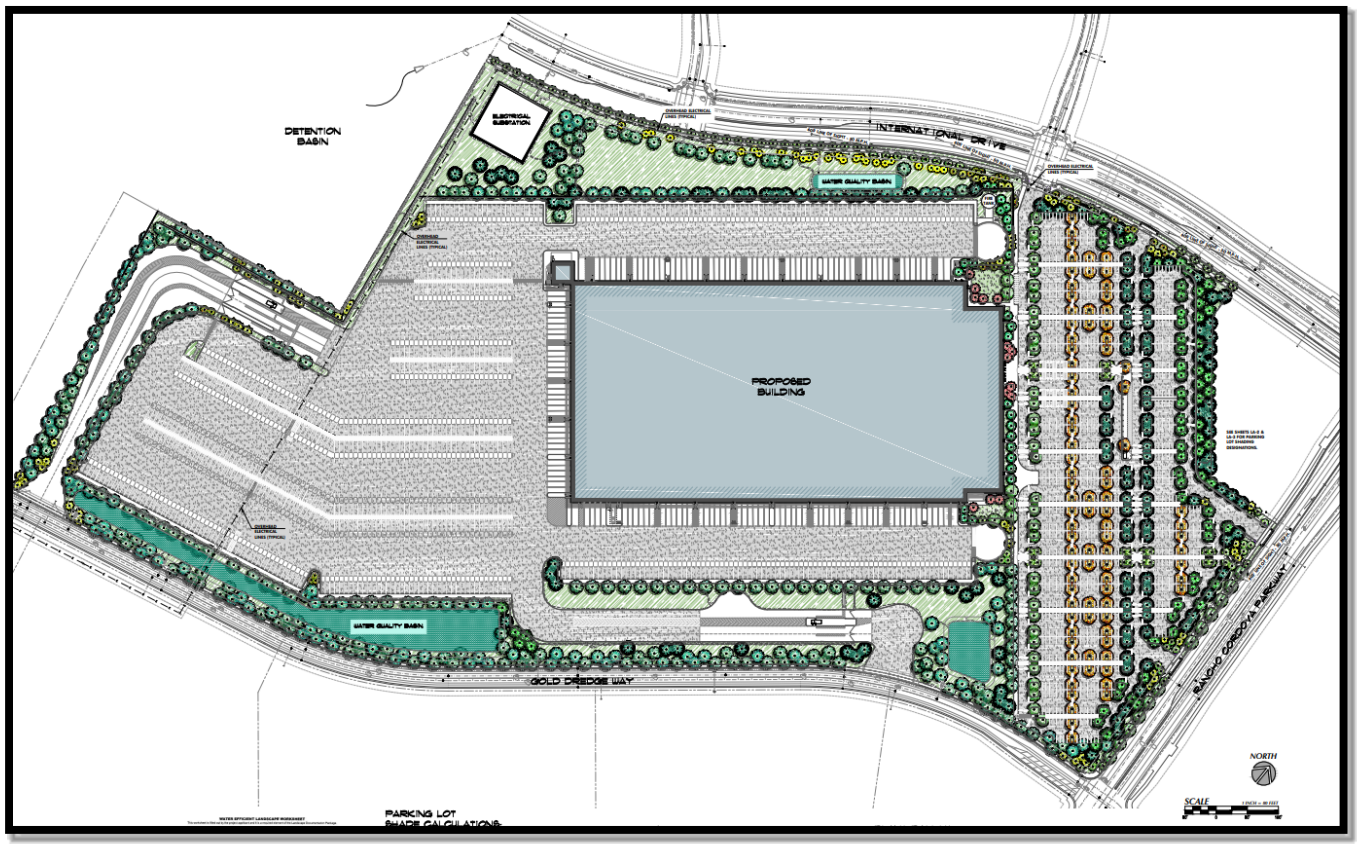
Figure 5 – Colored Renderings (View from Rancho Cordova Parkway)



Lighting:
The project has proposed adequate lighting throughout the property that meets the requirements for Chapter 23.725: Outdoor Lighting as well as the requirements and standards of Chapter 23.719.090: Design standards for surface parking lots, of the Rancho Cordova Zoning Code.

Landscaping:
The project proposes significant landscaping improvements along the boundary of the site and internal to it. Lines of screen trees have been planted internal to the site, as well as along the roadway to help with screening of the site. The project has been reviewed for compliance with applicable shade canopy requirements and the project plans show that the site plan is meeting the minimum 50% shade coverage for required parking areas.

Figure 6 – Proposed Landscape Plan



MAJOR DESIGN REVIEW FINDINGS:
The Major Design Review Permit, as conditioned, adheres to the approval findings defined by Zoning Code section 23.140.070, as follows:

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 proposed project is consistent with the purpose and intent of adopted policies and regulations, including the RDO Specific Plan. The use is listed as a permitted used within the plan and was analyzed against the RDO Specific Plan Development Standards and Design Guidelines. The proposed building is consistent in height, setbacks, and architectural requirements of the plan. The project meets the applicable parking, lighting, and landscape requirements of the Zoning Code. The use is

not requesting any deviations, exemptions, or variances from standards that apply to the site.

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 site design, building architecture, and landscape plan are consistent with the RDO Specific Plan Development Standards and Design Guidelines and Zoning Code. The proposed building is located in the most suitable location on the site that provides adequate emergency safety access to the buildings, on-site circulation needs and overall suitability of the site. The proposed project material and colors are consistent with the area design guidelines and incorporate additional architectural character into a future developing area.

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 proposed project design is consistent with the RDO Specific Plan Development Standards and Design Guidelines. The design, color, and materials have been designed to integrate and compliment the future developed surrounding area, but also provide additional architectural character to the area. Lighting plans have been provided showing minimum light spill out to the property line.

D. Finding: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

   Evidence: The proposed project will not substantially affect current traffic flows or existing modes of transportation circulation. Ingress and egress to the site will be from various points along Rancho Cordova Parkway, International Drive and Gold Dredge Way. Some of these access points will accommodate one-way traffic, while others will have an in and out lane. Additionally, these access points may only be a right-in-right-out. There will be adequate signage throughout the site to avoid any circulation conflicts. Bike racks have been included in the site plan.

ENVIRONMENTAL

The project exempt from CEQA per Section 15183, consistent with the Community Plan, General Plan or Zoning for which an EIR was certified. The City Council adopted Resolution 92-2010 certifying a Final Environmental Impact Report/Environment Impact Statement (State Clearinghouse #2003122057) for the RDO Specific Plan, pursuant to the California Environmental Quality Act (CEQA).

The proposed project is a permitted use within the RDO Specific Plan and was contemplated in the previously certified EIR/EIS. Additional traffic analysis was conducted for the project against the previous EIR/EIS and was found to be consistent in terms of traffic and transportation. A Mitigation Monitoring and Reporting Program was prepared as part of the original RDO Specific Plan approval and all projects are subject to those applicable mitigation measures. A condition

of approval has been placed on the proejct that requires compliance with applciable mitigation measures such as pre construction surveys. The Sacramento Air Quality Management District has reviewed the project and found it to be consistent with the RDO Specific Plan Air Quality Management Plan. No additional studies were required of the proposed project, as it will adhere to the previously certified EIR/EIS.

RECOMMENDED MOTIONS

Adopt the Resolution for the Rio Del Ordo Phase 5 Final Map, determine the Project Sunrise project Exempt from CEQA per Section 15183, consistent with the Community Plan, General Plan or Zoning for which an EIR was certified; and adopt the Resolution for Rio Del Oro Delivery Station Major Design Review.

ATTACHMENT(S)

1. Resolution for RDO Phase 5 Final Map
2. Subdivision Improvement Agreement
3. RDO-PH5-LLM-20220307
4. VMAP RDO Ph5
5. Substantial Compliance Map
6. Resolution for Project Sunrise Major Design Review
7. Exhibit A to the Resolution – Project Plans
8. Exhibit B to the Resolution – Conditions of Approval
9. Exhibit C to the Resolution – RDO MMRP
10. Exhibit D to the Resolution – Phasing Plan
11. Supplemental Studies

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 RIO DEL ORO PHASE 5, SUBDIVISION NO. FM-2019-004-05, AND AUTHORIZING THE EXECUTION OF THE SUBDIVISION IMPROVEMENT AGREEMENT CONTRACT NO. 2022-37

WHEREAS, the City Council approved the Large Lot Tentative Map on September 19, 2016 per Resolution No. 107-2016; and

WHEREAS, Elliott Homes submitted a revision to their Large Lot Tentative Subdivision Map, Rio Del Oro on March 3, 2022. And the revision to the tentative map was found to be in substantial compliance with the originally approved tentative map on March 9, 2022; and

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

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 Rio Del Oro Phase 5, Subdivision No. FM-2019-004-05 and does authorize the City Manager to execute Subdivision Improvement Agreement 2022-37 with Alta Vista, 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 March 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk

SUBDIVISION IMPROVEMENT AGREEMENT

RIO DEL ORO PHASE 5 FINAL MAP, SUBDIVISION NO. FM-2019-004-05

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 Alta Vista LLC, an Arizona 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 **Rio Del Oro Phase 5 Final Map, Subdivision No. FM-2019-004-05** 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. **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 8 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.

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

8. **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.

9. **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.

10. **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.

11. 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 **$10,584,461**. 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.

12. Improvement Security As Condition Precedent. The furnishing of the improvement security by Principal as required by paragraph 11 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.

13. 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 8 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.

14. 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.

15. 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.

16. 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.

17. 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.

18. 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 11 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.

19. **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.

21. **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.

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

23. **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: _____

ALTA VISTA LLC,
Arizona Limited Liability Company

_____
Price Walker, Vice President, Project Development

Date: March 9, 2022

ATTEST:

_____
Stacy Leitner, CMC, City Clerk

APPROVED AS TO FORM:

_____
Adam U. Lindgren, City Attorney

Date: _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

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 Sacramento)

On March 10, 2022 before me, Susan R Stephens, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Price Walker
Name(s) of Signer(s)

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.

SUSAN R. STEPHENS
Notary Public - California
Sacramento County
Commission # 2383296
My Comm. Expires Nov 16, 2025

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.

Signature Susan R Stephens
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Subdivision Improvement Agreement - Rio Del Oro, Phase 5 Final Map Document Date: March 9, 2022

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

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OWNER'S STATEMENT

THE UNDERSIGNED HEREBY CONSENT TO THE PREPARATION AND RECORDING OF THIS FINAL MAP.

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, INTERNATIONAL DRIVE, GOLD DREDGE WAY, RANCHO CORDOVA PARKWAY, IRAZU WAY AND SARAPIQUI 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 THOSE STRIPS OF LAND SHOWN HEREON AND DESIGNATED "PUBLIC UTILITY EASEMENT" (PUE).
2. EASEMENTS FOR LANDSCAPING AND ALL APPURTENANCES PERTAINING THERETO LYING ON, OVER AND ACROSS LOTS A AND B.
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 A AND B AND THOSE STRIPS OF LAND 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 5.00 FEET IN WIDTH LYING CONTIGUOUS TO THE PUBLIC DRIVE AND WAYS SHOWN HEREON.

ALTA VISTA, LLC
AN ARIZONA LIMITED LIABILITY COMPANY

BY: _____

NAME: Stephen Hemington

TITLE: V.P.

SURVEYOR'S STATEMENT

THIS FINAL MAP 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 ALTA VISTA, LLC, IN NOVEMBER, 2019. 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 MARCH 31, 2024 AND THAT THE MONUMENTS ARE, OR WILL BE, SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

WOOD RODGERS, INC.

_____

DENNIS L. BARBER
P.L.S. 8067

3/7/22
DATE

PROFESSIONAL LAND SURVEYOR
DENNIS L. BARBER
No. 8067
STATE OF CALIFORNIA

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 Sacramento) SS

ON 9TH DAY OF March, 2022 BEFORE ME, Sheri Hassell
_____, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE,
PERSONALLY APPEARED Stephen Hemington

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: _____

PRINTED NAME: Sheri Hassell

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

MY COMMISSION EXPIRES: Sept 24, 2023

MY COMMISSION No.: 2303284

CITY ENGINEER'S STATEMENT

I HEREBY STATE THAT I HAVE EXAMINED THIS FINAL MAP OF RIO DEL ORO PHASE 5 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 SAID FINAL MAP 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 RIO DEL ORO PHASE 5 AND HAS ACCEPTED ON BEHALF OF THE PUBLIC ALL EASEMENTS AND RIGHTS-OF-WAY DESIGNATED INTERNATIONAL DRIVE, GOLD DREDGE WAY, RANCHO CORDOVA PARKWAY, IRAZU WAY AND SARAPIQUI WAY AS SHOWN HEREON, TOGETHER WITH ANY AND ALL APPURTENANCES PERTAINING THERETO, SUBJECT TO THE IMPROVEMENT THEREOF, 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

RIO DEL ORO PHASE 5

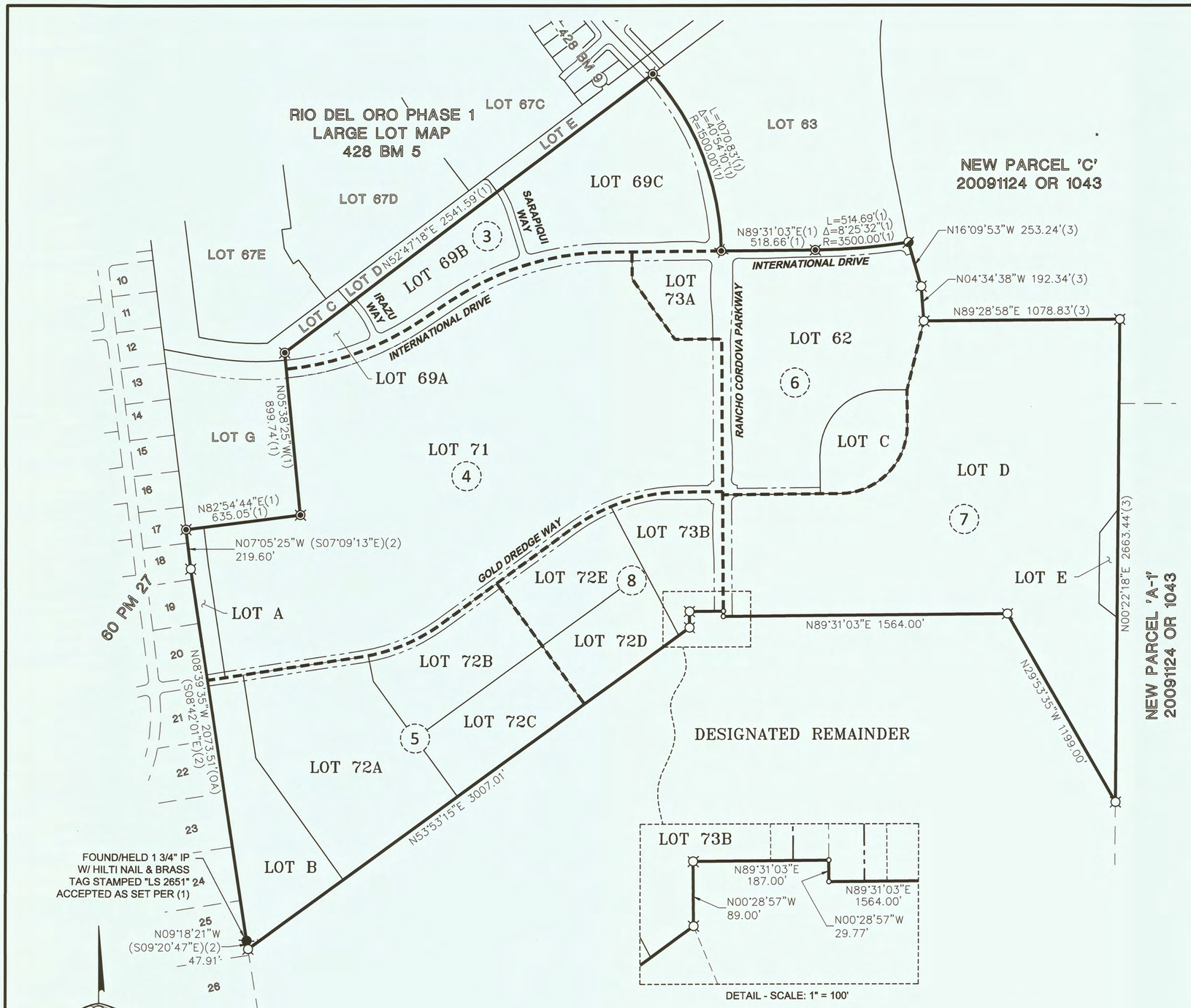
SUBDIVISION NO. FM-2019-004-05
BEING A PORTION OF THE DESIGNATED REMAINDER OF
FINAL MAP OF RIO DEL ORO PHASE 1,
FILED FOR RECORD IN BOOK 428 OF MAPS, AT PAGE 5,
SACRAMENTO COUNTY RECORDS
CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

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

MARCH 2022

Sheet 1 of 8

1032.068



LEGEND

○	DIMENSION POINT
●	FOUND MONUMENT AS NOTED
⊙	FOUND 1-1/4" GALVANIZED IRON PIPE WITH PLUG STAMPED "LS 8067"
⌀	FOUND 1-1/8" O.D. IRON PIPE WITH PLASTIC PLUG STAMPED "LS 5760 PLANK"
○	SET 5/8" REBAR WITH CAP STAMPED "LS 8067"
⊡	SET 3/4" GALVANIZED IRON PIPE WITH PLUG STAMPED "LS 8067"
℄	CENTERLINE
(6)	SHEET NUMBER REFERENCE
L=	ARC LENGTH
LE	LANDSCAPE EASEMENT
NTS	NOT TO SCALE
PE	PEDESTRIAN EASEMENT
PUE	PUBLIC UTILITY EASEMENT
(OA)	OVERALL
O.D.	OUTER DIAMETER
OR	OFFICIAL RECORDS OF SACRAMENTO COUNTY
(R)	RADIAL BEARING
SF	SQUARE FEET

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. THE TOTAL AREA FOR THIS "FINAL MAP OF RIO DEL ORO PHASE 5" IS 289.17± ACRES, CONSISTING OF 11 BUSINESS PARK & INDUSTRIAL PARK LOTS, 2 PARK LOTS AND 4 MISCELLANEOUS LOTS .
5. LOTS C AND D SHALL BE GRANTED TO THE CORDOVA RECREATION & PARK DISTRICT (CRPD) FOR NEIGHBORHOOD PARK PURPOSES.
6. LOT E SHALL BE GRANTED TO THE CITY OF RANCHO CORDOVA FOR DRAINAGE PARKWAY PURPOSES.
7. LOTS A AND B SHALL BE GRANTED TO THE CITY OF RANCHO CORDOVA FOR GREENBELT PURPOSES.
8. PURSUANT TO SECTION 66434(g) OF THE GOVERNMENT CODE, THE FOLLOWING EASEMENTS, NOT SHOWN HEREON, ARE HEREBY ABANDONED:
   - 8.1. THOSE PORTIONS OF IRREVOCABLE OFFER OF DEDICATION (IOD) AS DEPICTED ON THE MAP ENTITLED "RIO DEL ORO PHASE 1 LARGE LOT MAP" FILED IN BOOK 428 OF FINAL MAPS, AT PAGE 5, SACRAMENTO COUNTY RECORDS.
   - 8.2. THOSE PORTIONS OF PUBLIC UTILITY EASEMENT (PUE) AS DEPICTED ON THE MAP ENTITLED "RIO DEL ORO PHASE 1 LARGE LOT MAP" FILED IN BOOK 428 OF FINAL MAPS, AT PAGE 5, SACRAMENTO COUNTY RECORDS.

REFERENCES:

(1)	428 BM 5	RIO DEL ORO PHASE 1 - LARGE LOT FINAL MAP
(2)	60 PM 27	LOTS 5&6 AND A PORTION OF LOT 3, 'JOSEPH E. FITZGERALD 375 19/100 ACRE TRACT,' RECORDED BK. 2 R.S. PG 31 - AMENDED PARCEL MAP
(3)	20091124 OR 1043	6701 AEROJET BOUNDARY LINE ADJUSTMENT

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS IDENTICAL TO THE FINAL MAP "RIO DEL ORO PHASE 1 LARGE LOT FINAL MAP", FILED IN BOOK 428 OF MAPS AT PAGE 5, SACRAMENTO COUNTY RECORDS.

FINAL MAP OF

RIO DEL ORO PHASE 5

SUBDIVISION NO. FM-2019-004-05

BEING A PORTION OF THE DESIGNATED REMAINDER OF
FINAL MAP OF RIO DEL ORO PHASE 1,
FILED FOR RECORD IN BOOK 428 OF MAPS, AT PAGE 5,
SACRAMENTO COUNTY RECORDS
CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

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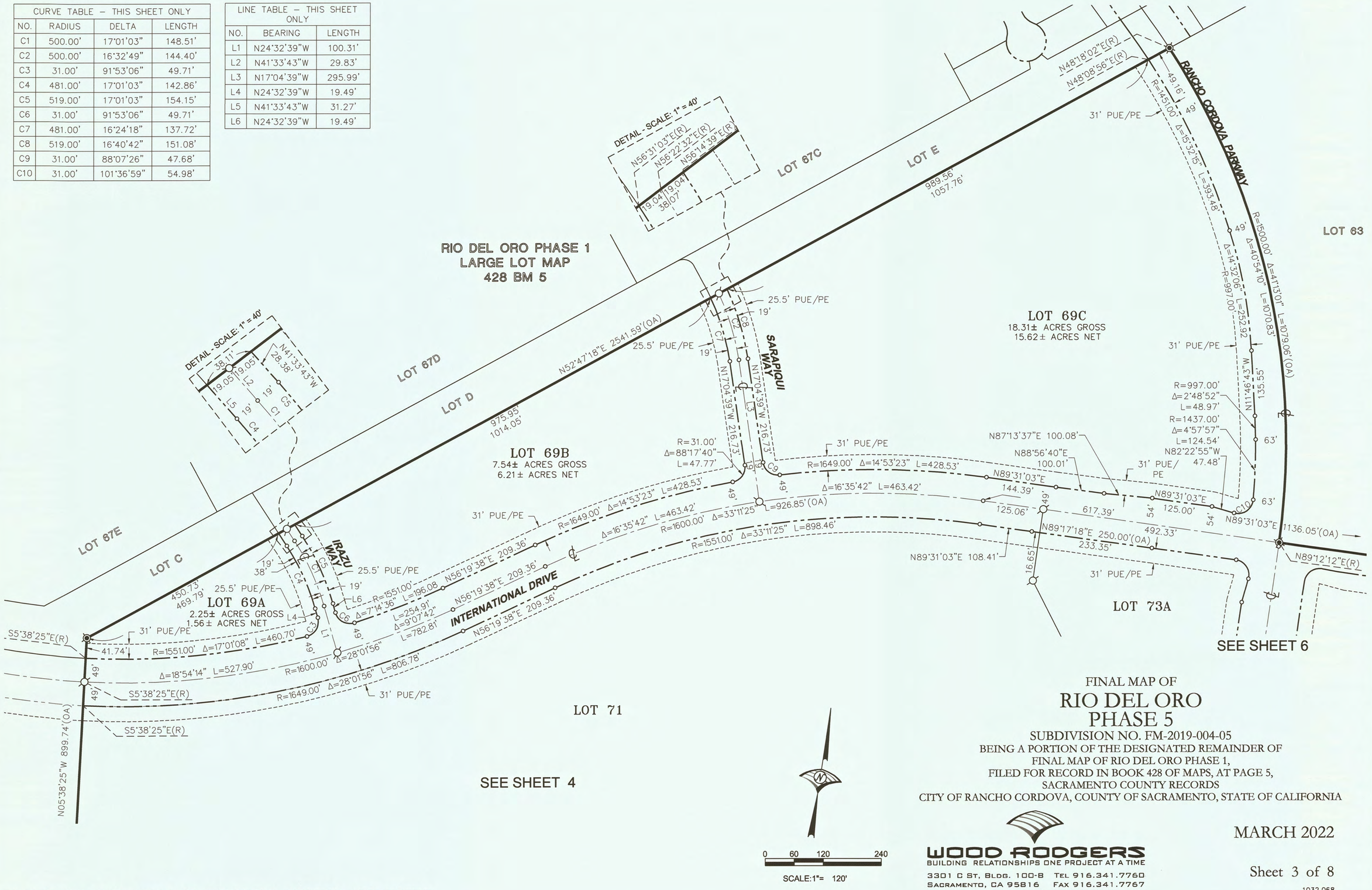
MARCH 2022

Sheet 2 of 8

1032.068

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	500.00'	17°01'03"	148.51'
C2	500.00'	16°32'49"	144.40'
C3	31.00'	91°53'06"	49.71'
C4	481.00'	17°01'03"	142.86'
C5	519.00'	17°01'03"	154.15'
C6	31.00'	91°53'06"	49.71'
C7	481.00'	16°24'18"	137.72'
C8	519.00'	16°40'42"	151.08'
C9	31.00'	88°07'26"	47.68'
C10	31.00'	101°36'59"	54.98'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N24°32'39"W	100.31'
L2	N41°33'43"W	29.83'
L3	N17°04'39"W	295.99'
L4	N24°32'39"W	19.49'
L5	N41°33'43"W	31.27'
L6	N24°32'39"W	19.49'



FINAL MAP OF

RIO DEL ORO PHASE 5

SUBDIVISION NO. FM-2019-004-05

BEING A PORTION OF THE DESIGNATED REMAINDER OF
FINAL MAP OF RIO DEL ORO PHASE 1,
FILED FOR RECORD IN BOOK 428 OF MAPS, AT PAGE 5,
SACRAMENTO COUNTY RECORDS
CITY OF RANCHO CORDOVA, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

MARCH 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

SEE SHEET 2 FOR BASIS OF BEARINGS, LEGEND AND NOTES

RIO DEL ORO PHASE 1
LARGE LOT MAP
428 BM 5

SEE SHEET 3

LOT 67E

LOT D

LOT C

LOT 69A

LOT 69B

IRAZU WAY

INTERNATIONAL DRIVE

R=1600.00' Δ=33°11'25" L=926.85'(OA)

R=1551.00' Δ=33°11'25" L=898.46'

N56°19'38"E 209.36'

N56°19'38"E 209.36'

L=782.81'(OA)

R=1600.00' Δ=28°01'56"

R=1649.00' Δ=28°01'56" L=806.78'

41.74'

49'

98'

31' PUE/PE

N89°31'03"E 617.39'

N89°17'18"E 492.33'

125.06'

48.93'

L3

16.65'

99.94'

N89°17'18"E 250.00'(OA)

N00°28'57"W 148.87'(OA)

LOT 73A

N35°24'31"W 411.08'

N89°31'03"E 257.00'(OA)

208.00'

98'

31' PUE/PE

49'

SEE SHEET 6

LOT 62

RANCHO CORDOVA PARKWAY

N00°28'57"W 812.40'(OA)

784.49'

842.49'

1337.68'

N00°28'57"W 1977.91'(OA)

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N80°30'18"E	100.01'
L1	N79°34'37"W	224.94'
L3	N89°31'03"E	108.41'

DETAIL - SCALE: 1" = 40'

31' PUE

N89°31'03"E(R) 13.00'

N00°28'57"W(R) 6.00'

12.5' PUE

N89°31'03"E 154.25'

R=18.00' Δ=90°00'00" L=28.27'

N00°28'57"W 812.40'(OA)

LOT 71
89.03± ACRES GROSS
83.56± ACRES NET

LOT G

60 PM 27

60' WATER EXTRACTION & PIPELINE EASEMENT 971118 OR 809

60' MONITOR WELL EASEMENT 971118 OR 810

60' WATERLINE EASEMENT 971118 OR 808

N05°38'25"W 899.74'(OA)

760.00'

N82°54'44"E 635.05'(OA)

535.05'

100.00'

N07°05'25"W 219.60'

N07°05'25"W 218.22'

LOT A
1.93± ACRES GROSS
1.85± ACRES NET
(GREEBBELT)

N08°39'35"W 2073.51'(OA)

589.47'

620.47'

N08°39'35"W 619.14'(OA)

586.64'

DETAIL 'A'
SEE SHEET 5

65'

32.5'

12.5' PUE

L1

N81°21'52"E 757.99'

757.98'

N81°21'52"E 857.98'(OA)

LOT B

LOT 72A

LOT 72B

GOLD DREDGE WAY

R=967.50' Δ=27°28'37" L=463.98'

R=1000.00' Δ=27°28'37" L=479.36'(OA)

N53°53'15"E 904.43'

N53°53'15"E 904.43'

LOT 72E

SEE SHEET 8

N89°31'03"E 154.25'

N85°27'48"E 128.24'

32.5'

34'

12.5' PUE

65'

R=1032.50' Δ=28°41'22" L=517.00'

R=1000.00' Δ=35°37'48" L=621.86'(OA)

237.40'

N89°31'03"E

76'

17.50'

LOT 73B

LOT D

SEE SHEET 7

SEE SHEET 5

0 80 160 320

SCALE:1"= 160'

FINAL MAP OF

RIO DEL ORO PHASE 5

SUBDIVISION NO. FM-2019-004-05

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

MARCH 2022

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SACRAMENTO, CA 95816 FAX 916.341.7767

SEE SHEET 2 FOR BASIS OF BEARINGS, LEGEND AND NOTES

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	1000.00'	2°10'12"	37.88'

SEE SHEET 4

LOT 71

LOT A

DETAIL 'A' THIS SHEET

GOLD DREDGE WAY

32.5'

N81°21'52"E 857.98'(OA)

200.00'

100.00'

32.00'

657.98'

657.96'

N81°21'52"E 757.97'(OA)

65'

12.5' PUE

N82°13'26"E 100.01'

N08°39'35"W 464.47'(OA)

431.97'

R=1000.00' Δ=27°28'37" L=479.56'(OA)

Δ=25°18'25" L=441.69'

32.00'

C1

Δ=2°10'12" L=39.11'

111.82'

N10°48'20"W 144.32'(OA)

R=1032.50' Δ=25°18'25" L=456.04'

Δ=27°28'37" L=495.15'(OA)

65'

12.5' PUE

N53°53'15"E 904.43'(OA)

377.44'

377.44'

N53°53'15"E 904.43'(OA)

32.00'

32.5'

20'

20'

LOT 72E

425.50'

393.00'

N36°06'45"W

823.50'(OA)

SEE SHEET 8

LOT 72D

395.00'

20'

20'

LOT 72B

8.82± ACRES GROSS

8.20± ACRES NET

391.00'

N36°06'45"W

789.00'(OA)

N53°53'15"E 1566.43'(OA)

866.60'

40' PRIVATE RECIPROCAL INGRESS/EGRESS ACCESS EASEMENT PER DOC# _____

LOT 72C

7.92± ACRES GROSS/NET

398.00'

866.60'

LOT 72A

19.24± ACRES GROSS

18.72± ACRES NET

N35°38'51"W 827.76'

776.83'

N53°53'15"E 3007.01'(OA)

60 PM 27

N08°39'35"W 2073.51'(OA)

1422.03'

1453.03'

LOT B

10.68± ACRES GROSS

10.53± ACRES NET

(GREENBELT)

60' WATER EXTRACTION & PIPELINE EASEMENT 971118 OR 809

60' MONITOR WELL EASEMENT 971118 OR 810

60' WATERLINE EASEMENT 971118 OR 808

648.08'

FOUND/HELD 1 3/4" IP W/ HILTI NAIL & BRASS TAG STAMPED "LS 2651" ACCEPTED AS SET PER (1)

N09°18'21"W 47.91'

20

21

22

23

24

25

DETAIL A - SCALE: 1" = 60'

N08°39'35"W 2073.51'(OA)

N80°30'18"E 100.01'

757.99'

N81°21'52"E 100.00'

857.98'(OA)

757.98'

200.00'

N82°13'26"E 100.01'

757.97'

31'

32.50'

32.5'

DESIGNATED REMAINDER

0 60 120 240

SCALE:1"= 120'

FINAL MAP OF

RIO DEL ORO PHASE 5

SUBDIVISION NO. FM-2019-004-05

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MARCH 2022

Sheet 5 of 8

1032.068

SEE SHEET 2 FOR BASIS OF BEARINGS, LEGEND AND NOTES

RIO DEL ORO PHASE 1
LARGE LOT MAP
LOT 63
428 BM 5

SEE SHEET 3

SEE SHEET 4

INTERNATIONAL DRIVE

Δ=40°54'10" L=1070.83'

N89°31'03"E 1136.05'(OA)

R=1500.00' Δ=41°13'01" L=1079.06'(OA)

N89°12'12"E(R)

N89°31'03"E 518.66'

R=3500.00' Δ=8°25'32" L=514.69'

617.39'

492.33'

Δ=0°18'51" L=8.23'

N89°17'18"E 250.00'(OA)

N89°31'03"E 176.00'

48.93'

148.87'(OA)

N00°28'57"W

99.94'

233.35'

31' PUE/PE

N07°11'46"E 50.31'

LOT 73A
4.58± ACRES GROSS
3.49± ACRES NET

N35°24'51"W 411.08'

125.00'

N00°28'57"W

100.40'

N05°37'31"W

100.00'

N01°03'19"W

27.91'

208.00'

N89°31'03"E
257.00'(OA)

477.68'

63'

59'

52'

50'

49'

48'

41'

43'

40'

38'

L1 N89°31'03"E 125.00'

N87°47'57"E 100.04'

N88°22'18"E 100.02'

31' PUE/PE

36' PUE/PE

N0°28'57"W(R)

N00°28'57"W 171.00'

31' PUE/PE

N89°31'03"E 65.64'

31' PUE/PE

R=3538.00' Δ=7°32'17" L=465.47'

N16°09'53"W 4.30'

N73°50'07"E 32.50'

S8°54'26"E(R)

N16°09'53"W 253.24'(OA)

185.90'

NEW PARCEL 'C'
20091124 OR 1043

N04°34'38"W 192.34'

N02°43'22"E 250.39'

LOT 62
26.99± ACRES GROSS
24.01± ACRES NET

N13°32'38"E 389.65'

LOT 71

N00°28'57"W 1337.68'

N00°28'57"W 812.40'(OA)

842.49'

N00°28'57"W 490.40'

RANCHO CORDOVA PARKWAY

N04°29'12"W 100.25'

SEE SHEET 7

N89°31'32"E
131.00'

N00°28'28"W 198.03'

R=350.00' Δ=90°02'10" L=550.00'

LOT C
5.01± ACRES GROSS/NET
(PARK)

LOT D

31' PUE/PE

56'

31' PUE/PE

N00°28'57"W 125.00'

N06°54'14"E 54.45'

S89°31'13"W(R)

N00°28'57"W(R)
17.50'

C4

12' PE

12.5' PUE

185.00'

N00°28'57"W 220.00'(OA)

R=372.00' Δ=89°59'31" L=584.28'

N89°31'03"E 458.00'

538.00'

458.00'

17.50'

80.00'

35'

109.19'

N89°31'03"E 647.19'(OA)

GOLD DREDGE WAY

GOLD DREDGE WAY

SEE SHEET 8

SEE SHEET 7

SEE SHEET 2 FOR BASIS OF BEARINGS, LEGEND AND NOTES

CURVE TABLE – THIS SHEET ONLY			
NO.	RADIUS	DELTA	LENGTH
C1	31.00'	81°51'21"	44.29'
C2	31.00'	90°00'00"	48.69'
C3	31.00'	97°40'44"	52.85'
C4	31.00'	90°00'10"	48.70'

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N87°06'58"W	34.06'

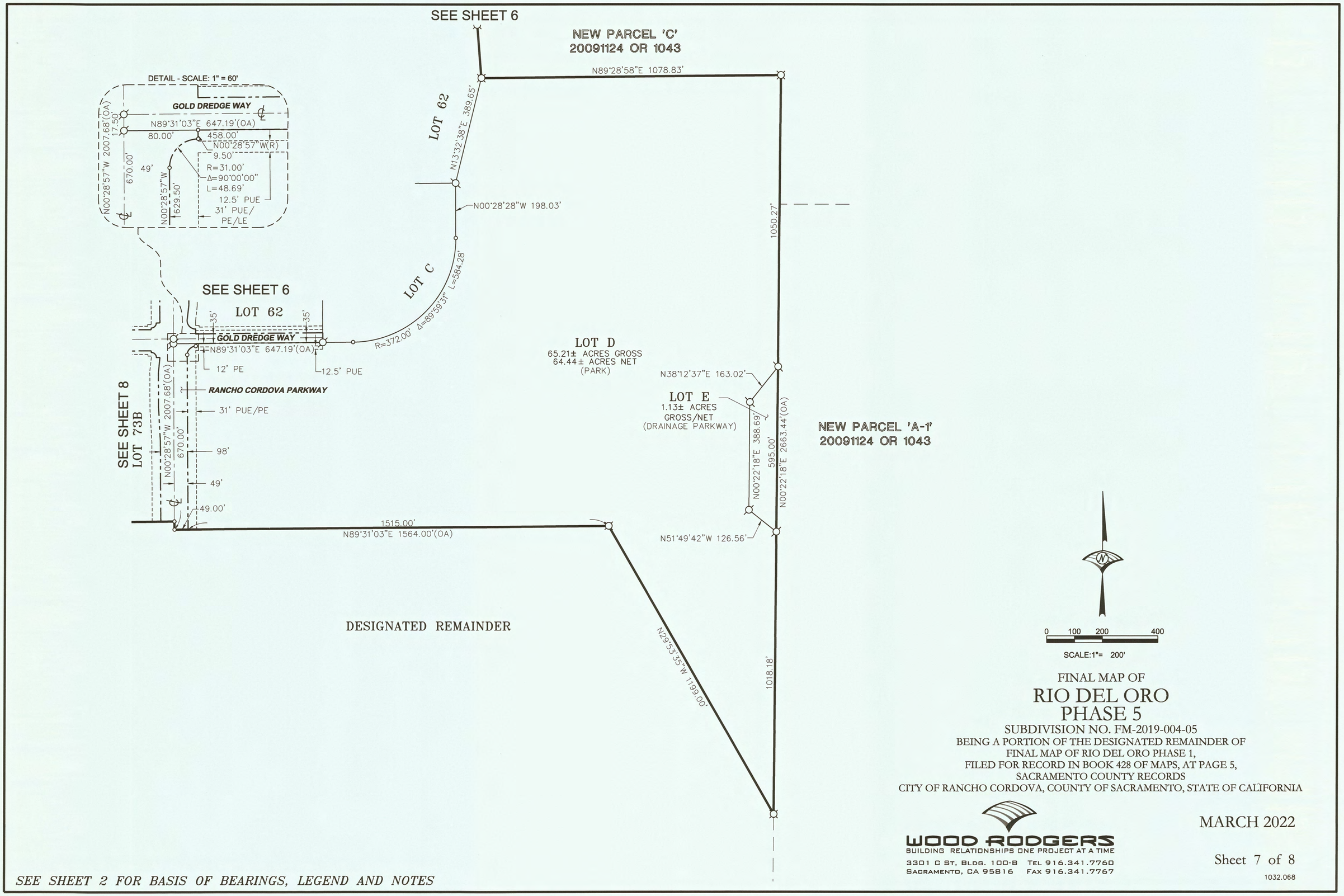
0 50 100 200

SCALE:1"= 100'

FINAL MAP OF
RIO DEL ORO PHASE 5
SUBDIVISION NO. FM-2019-004-05
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MARCH 2022

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FINAL MAP OF

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Sacramento, CA 95816 Fax 916.341.7767

SEE SHEET 2 FOR BASIS OF BEARINGS, LEGEND AND NOTES

LINE TABLE – THIS SHEET ONLY		
NO.	BEARING	LENGTH
L1	N0°28'57"W	29.77'

SEE SHEET 4

LOT 71

LOT 62

GOLD DREDGE WAY

R=1000.00'
Δ=35°37'48" L=621.86'(OA)
Δ=22°19'21" L=389.60'
Δ=13°18'28" L=232.26'
32.63'
Δ=15°10'15" L=256.17'
Δ=28°39'03" L=483.80'(OA)
Δ=13°28'49" L=227.63'
R=967.50'
N7°27'42"W(R)
12.5' PUE
N22°48'18"W(R)
370.12'
402.75'
N89°22'40"W 42'
120.91'
N89°31'03"E 42'
154.07'
N89°31'03"E 237.40'
65'
76'
17.50'
N0°28'57"W(R) 6.00'
R=18.00'
Δ=90°00'00" L=28.27
N89°31'03"E(R) 13.00'
N05°49'59"E 54.54'
49'
55'
SEE SHEET 7
N53°53'15"E 904.43'(OA)
526.99'
526.99'
32.50'
65'
12.5' PUE
20'
20'
LOT 72E
7.09± ACRES GROSS
6.52± ACRES
LOT 73B
7.33± ACRES GROSS
6.07± ACRES
31' PUE/PE
104'
N00°28'57"W 125.00'
55'
N03°13'46"W 125.20'
657.73'
N00°28'57"W 2007.68'(OA)
30' PUE/PE
98'
49'
LOT D
31' PUE/PE
N00°28'57"W 287.46'
RANCHO CORDOVA PARKWAY
N27°55'39"W 804.85'(OA)
402.10'
699.83'
N53°53'15"E 1566.43'(OA)
LOT 72B
393.00'
425.50'
N36°06'45"W
138.00'
N89°31'03"E
187.00'(OA)
49.00'
L1
N00°28'57"W 89.00'
72.91'
LOT 72D
6.13± ACRES GROSS/NET
40' PRIVATE RECIPROCAL
INGRESS/EGRESS ACCESS EASEMENT
PER DOC# _____
SEE SHEET 5
823.50'(OA)
398.00'
LOT 72C
20'
20'
642.59'
N53°53'15"E 3007.01'(OA)
DESIGNATED REMAINDER

0 50 100 200
SCALE:1"= 100'

FINAL MAP OF
RIO DEL ORO PHASE 5
SUBDIVISION NO. FM-2019-004-05
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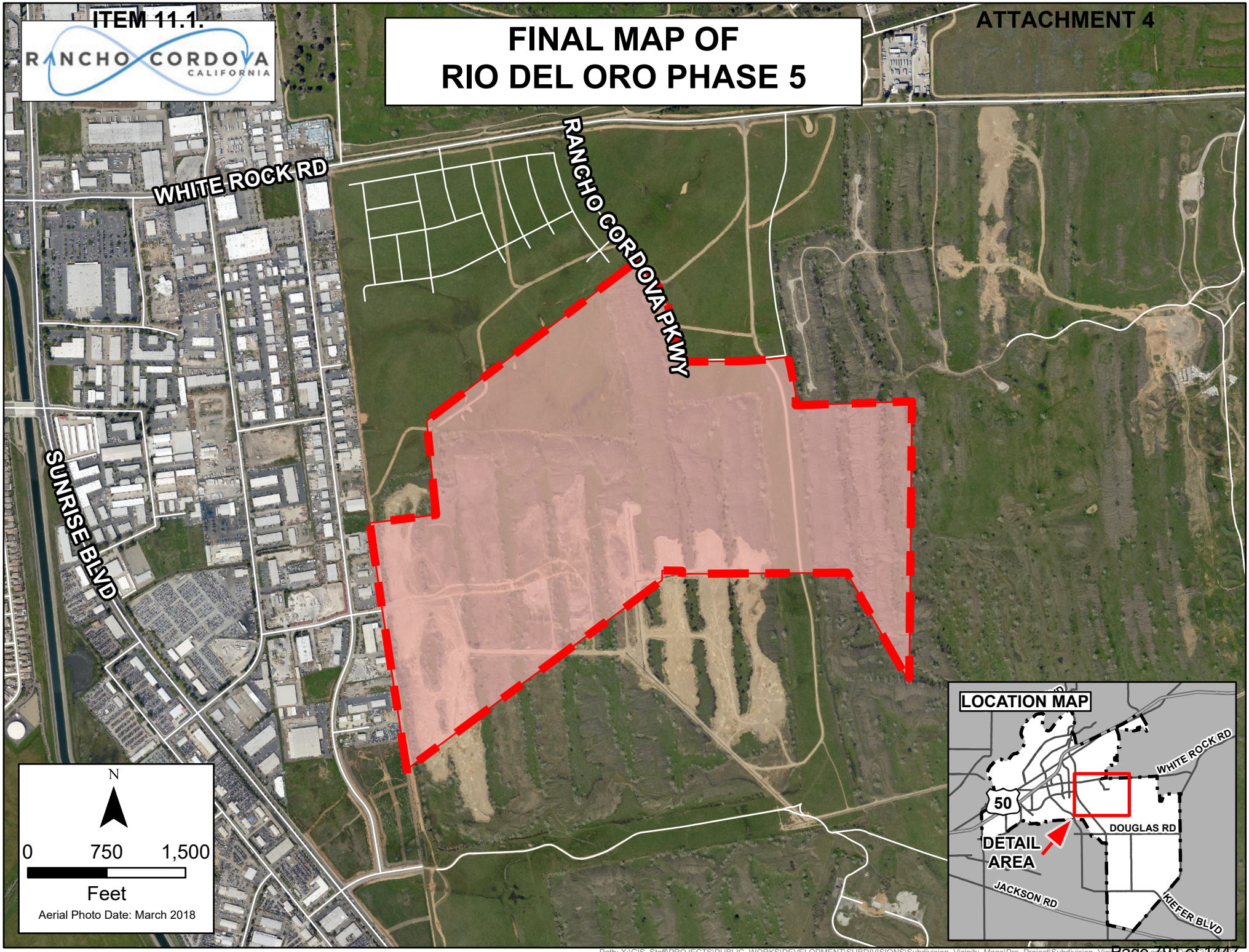
MARCH 2022

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SEE SHEET 2 FOR BASIS OF BEARINGS, LEGEND AND NOTES

RANCHO CORDOVA CALIFORNIA

FINAL MAP OF RIO DEL ORO PHASE 5



PROJECT NOTES

RECORD OWNER/APPLICANTS
ELLIOTT WHITEROCK LLC &
STONECREEK INDUSTRIAL LLC
C/O ELLIOTT HOMES
340 PALLADIO PARKWAY, SUITE 521
FOLSOM, CA 95630
(916) 984-1300
CONTACT: PRICE W ALKER

EASTON DEVELOPMENT COMPANY, LLC
1180 IRON POINT ROAD, SUITE 350
FOLSOM, CA 95630
(916) 351-8537 T.
(916) 425-7288 C.
CONTACT: MICHAEL LAFORTUNE

PLANNER/ENGINEER
WOOD RODGERS INC.
3301 'C' STREET, BLDG. 100B
SACRAMENTO, CA 95816
CONTACT/PLANNER: TIMOTHY DENHAM, AICP
ENGINEER: TIMOTHY CRUSH, PE NO. 41978
PHONE: (916) 341-7760

ASSESSOR'S PARCEL NUMBERS
072-0370-043, 045, 046, 047, 048, 071, 089, 092
072-0370-102, 103, 104, 105
072-0540-004, 005, 006, 011, 013, 014, 015, 016
072-0540-017, 021, 022, 023

AREA
3,827.9 ± ACRES GROSS

NUMBER OF PARCELS
185 LARGE LOTS (SEE LAND USE SUMMARY)

EXISTING USE
VACANT

PROPOSED USE
SEE LAND USE SUMMARY

EXISTING & PROPOSED ZONING
SPECIAL PLANNING AREA (ORD. # SZC 95-0014)

PARK DISTRICT
CORDOVA RECREATION & PARK DISTRICT

FIRE PROTECTION
SACRAMENTO METRO FIRE DISTRICT

SCHOOL DISTRICT
FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT

SEWER
SACRAMENTO COUNTY SANITATION DISTRICT #1

STORM DRAIN
COUNTY OF SACRAMENTO

WATER
SAC COUNTY WATER AGENCY & CAL AM WATER

ELECTRICITY
SMUD

NATURAL GAS
PG&E

LARGE LOT TENTATIVE SUBDIVISION MAP

RIO DEL ORO

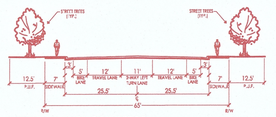
CITY OF RANCHO CORDOVA, CALIFORNIA

JANUARY 4, 2016

SHEET 1 OF 2

SUBSTANTIAL COMPLIANCE EXHIBIT

MARCH 3, 2022



MAP NOTES

1) SUBDIVIDER(S) RESERVES THE RIGHT TO FILE MULTIPLE FINAL MAPS PURSUANT TO SECTION 66456.1(A) OF THE SUBDIVISION MAP ACT.
2) UNLESS OTHERWISE SHOWN ON MAP, ALL UTILITIES WILL BE INSTALLED WITHIN THE PUBLIC ROAD RIGHT-OF-WAY OR WITHIN A 12.5' PUBLIC UTILITY EASEMENT (P.U.E.).
3) ALONG ALL PUBLIC STREETS, P.U.E. IS MEASURED FROM RIGHT-OF-WAY OR BACK OF WALK AS SHOWN ON THE STREET SECTIONS (SEE SHEET2), AN OPTIONAL 10' P.U.E. IS ALLOWED ON ALL STREETS WITH RESIDENTIAL LOTS THAT ARE LESS THAN 100' DEEP AS MEASURED FROM BACK OF WALK.
4) OWNER WILL DEDICATE ALL EASEMENTS AND ROW'S NECESSARY TO PROVIDE ALL UTILITIES. NET ACREAGES SHOWN ON THIS EXHIBIT EXCLUDE IOD.
5) THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.
6) LARGE LOT NUMBERING IS FOR IDENTIFICATION PURPOSES ONLY AND DOES NOT INDICATE PHASING. ORDER OF DEVELOPMENT. ULTIMATE DEVELOPMENT PHASING SHALL BE O'DERLY AND WILL BE DETERMINED AT FINAL MAP AND/OR IMPROVEMENT PLAN STAGE.
7) ALL EXISTING STRUCTURES TO BE REMOVED, EXCEPT FOR STRUCTURES WITH EXISTING RESTRICTIONS PER LAND USE COVENANTS.
8) THIS EXHIBIT IS FOR LARGE LOT TENTATIVE MAP PURPOSES ONLY. ALL SITE CHARACTERISTICS ARE TO BE VERIFIED PRIOR TO FINAL MAP.
9) SEE SEPARATE 500' RADIUS MAP AND PROPERTY OWNER LIST FOR REQUIRED ADJACENT OWNERSHIP INFORMATION.
10) PURSUANT TO SECTION 66499.20 1/2 OF THE SUBDIVISION MAP ACT, THE LANDS SHOWN HEREON ARE HEREBY MERGED AND RE-SUBDIVIDED.
11) MASTER UTILITY STUDIES WILL BE PROVIDED AT THE TIME OF VILLAGE IMPROVEMENT PLAN SUBMITTAL.
12) I.O.D. STREET SECTIONS ARE PER APPROVED RIO DEL ORO SPECIFIC PLAN AND AS MODIFIED WITH THIS APPLICATION.
13) THE I.O.D. LOCATIONS SHOWN ON THIS MAP MAY BE ADJUSTED WITH THE PROCESSING OF FUTURE ENTITLEMENT DOCUMENTS.
14) ACTUAL "32' L.O.D." STREET SECTION TO BE DETERMINED WITH SMALL LOT TENTATIVE MAP.
15) MONITORING WELLS THAT WILL BE IMPACTED BY FUTURE DEVELOPMENT WILL BE RELOCATED ON FUTURE DEVELOPMENT PLANS.
16) THE DEVELOPMENT OF THIS PROPERTY IS SUBJECT TO ALL COVENANTS TO RESTRICT USE OF PROPERTY, WATER EXTRACTION AND PIPELINE EASEMENT AGREEMENTS. MONITOR WELLS EASEMENT AGREEMENTS, AND COVENANTS NOT TO DRILL WATER WELLS.
17) ALL EASEMENTS IMPACTED BY DEVELOPMENT SHALL BE ABANDONED AND/OR RELOCATED AS NECESSARY, EXCEPT EXISTING EASEMENTS IMPACTED BY LAND USE COVENANTS.
18) THE AERIAL TOPOGRAPHY SHOWN HEREON WAS FLOWN BY GEOMAPS ON DECEMBER 2002.
19) PURSUANT TO SECTION 66499.20,2 OF THE SUBDIVISION MAP ACT, THE FOLLOWING EASEMENTS ARE HEREBY NOTICED TO BE ABANDONED (SEE SHEET 2 FOR LOCATIONS) :
1) SVMD EASEMENT 840907 OR 978
2) PG&E PRIVATE ACCESS 801213 OR 499
3) PG&E POLE EASEMENT 800910 OR 1187
4) GROUNDWATER RESTRICTION 20080325 OR 971 & 972
5) COUNTY ROAD 12 R3 30
6) PG&E POLE EASEMENT 800910 OR 1184
7) PT&T POLE EASEMENT 800707 OR 681
8) PT&T 780222 OR 936
9) PG&E UG EASEMENT 800910 OR 1184
10) PT&T EASEMENT 800707 OR 665
11) SVMD EASEMENT Y201311 OR 670

SUMMARY OF CHANGES

- Approved Large Lot 25-D is now designated **BP.**
- Approved Large Lots 63-A & 63-B are now proposed as Large Lot 63.
- Approved Large Lots 71 through 74-B have been reconfigured and renamed as shown on the map.
- Land Use designations and acreages have been updated in the overall and Use Summary, and an additional detailed table of the substantial compliance changes is shown in red as well.

LARGE LOT NUMBER	APPROVED SP DESIGNATION	NET AC	PROPOSED SP DESIGNATION	NET AC	BP DIFFERENCE	GB DIFFERENCE	OTHER DIFFERENCE
25-D	MP	13.9	BP	13.9	-13.9	-	-
63	MP	35.8	MP	35.8	0.0	-	-
71	MP	29.5	MP	83.4	+53.9	-	-
72-A	MP	13.1	MP	18.2	+5.1	-	-
73-B	MP	17.6	MP	8.1	-9.5	-	-
72-C	MP	14.0	MP	7.9	-6.1	-	-
72-D	-	-	MP	6.4	+6.4	-	-
72-E	-	-	MP	6.7	+6.7	-	-
73-A	BP	6.1	BP	4.0	-2.1	-	-
73-B	BP	5.8	BP	3.6	-2.2	-	-
73-C	BP	6.4	-	-	-6.4	-	-
73-D	BP	6.2	-	-	-6.2	-	-
74-A	MP	33.6	MP	1.9	-33.6	+1.9	-
74-B	MP	24.7	MP	9.9	-24.7	+9.9	-
Arterial/Collector Roads	-	78.7	-	84.6	-	-	+5.9
SUBTOTAL		286.4		286.4	-17.7	0.0	+11.8	+5.9

APPROVALS

E Gvakman 3.9.22
ELIZABETH GVAKHARIA, DATE
CITY OF RANCHO CORDOVA

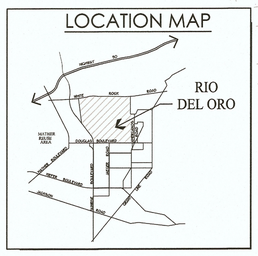
ALBERT STRICKER, DATE
CITY OF RANCHO CORDOVA

LAND USE SUMMARY

LARGE LOT NUMBER	SPECIFIC PLAN DESIGNATIONS	LAND USE	NET AC	GROSS AC
25-D	~~MP~~ BP	~~INDUSTRIAL PARK~~ BUSINESS PARK	13.9	14.9
46-A	MD	MEDIUM DENSITY RESIDENTIAL	11.0	11.4
46-B	MD	MEDIUM DENSITY RESIDENTIAL	13.3	14.7
52	SWD	STORM WATER DETENTION	6.0	6.0
53	HD	HIGH DENSITY RESIDENTIAL	12.9	13.8
54-A	SF	SINGLE FAMILY RESIDENTIAL	13.0	13.0
54-B	SF	SINGLE FAMILY RESIDENTIAL	11.1	11.1
54-C	SF	SINGLE FAMILY RESIDENTIAL	16.2	16.9
54-D	SF	SINGLE FAMILY RESIDENTIAL	20.6	22.9
58	CP	COMMUNITY PARK	64.3	65.0
59-D	DP	DRAINAGE PARKWAY	1.1	1.1
59	MD	MEDIUM DENSITY RESIDENTIAL	16.6	17.6
60	HS/MS	HIGH SCHOOL/ MIDDLE SCHOOL	78.0	82.9
61	P/QP	PUBLIC / QUASI-PUBLIC	5.0	5.0
62	LTC	LOCAL TOWN CENTER	24.3	27.0
63 ~~25-D~~	MP ~~BP~~	INDUSTRIAL PARK ~~INDUSTRIAL PARK~~	~~35.8~~ 39.5	~~39.5~~ 43.9
~~63-A~~	~~MP~~	~~INDUSTRIAL PARK~~	~~13.7~~	~~15.0~~
65	HD	HIGH DENSITY RESIDENTIAL	12.0	12.1
66	MD	MEDIUM DENSITY RESIDENTIAL	20.4	22.5
67-A	SF	SINGLE FAMILY RESIDENTIAL	20.1	21.1
67-B	SF	SINGLE FAMILY RESIDENTIAL	25.0	27.4
67-C	SF	SINGLE FAMILY RESIDENTIAL	15.7	16.4
67-D	SF	SINGLE FAMILY RESIDENTIAL	16.0	16.0
67-E	SF	SINGLE FAMILY RESIDENTIAL	22.1	22.1
68	PARK	PARK	5.2	5.2
69-A	BP	BUSINESS PARK	1.7	2.4
69-B	BP	BUSINESS PARK	6.5	7.5
69-C	BP	BUSINESS PARK	15.9	18.3
70	SWD	STORM WATER DETENTION	12.0	13.4
71	MP	INDUSTRIAL PARK	~~83.4~~ 89.4	~~88.2~~ 96.8
72-A	MP	INDUSTRIAL PARK	~~18.2~~ 13.1	~~18.5~~ 14.0
72-B	MP	INDUSTRIAL PARK	~~8.1~~ 17.6	~~8.1~~ 17.9
72-C	MP	INDUSTRIAL PARK	~~7.9~~ 14.0	~~8.1~~ 14.0
73-A	BP	BUSINESS PARK	~~4.0~~ 6.1	~~5.2~~ 7.5
73-B	BP	BUSINESS PARK	~~3.6~~ 5.8	~~4.5~~ 7.0
72-D ~~72-D~~	MP ~~MP~~	INDUSTRIAL PARK ~~BUSINESS PARK~~	~~6.4~~ 6.4	~~6.4~~ 6.4
72-E ~~72-E~~	MP ~~MP~~	INDUSTRIAL PARK ~~BUSINESS PARK~~	~~6.7~~ 6.7	~~6.7~~ 6.7
74-A	~~MP~~ GB	~~INDUSTRIAL PARK~~ GREENBELT	1.9	2.0
74-B	~~MP~~ GB	~~INDUSTRIAL PARK~~ GREENBELT	9.9	10.1
75	MD	MEDIUM DENSITY RESIDENTIAL	22.0	23.3
76	ES	ELEMENTARY SCHOOL	9.5	9.5
77	PARK	PARK	5.4	5.4
78-A	SF	SINGLE FAMILY RESIDENTIAL	21.4	21.4
78-B	SF	SINGLE FAMILY RESIDENTIAL	20.9	20.9
78-C	SF	SINGLE FAMILY RESIDENTIAL	19.0	19.0
78-D	SF	SINGLE FAMILY RESIDENTIAL	16.2	16.2
78-E	SF	SINGLE FAMILY RESIDENTIAL	19.8	21.0
78-F	SF	SINGLE FAMILY RESIDENTIAL	40.9	44.0
78-G	SF	SINGLE FAMILY RESIDENTIAL	29.7	30.6
78-H	SF	SINGLE FAMILY RESIDENTIAL	30.8	31.9
80	PARK	PARK	5.0	5.0
81	ES	ELEMENTARY SCHOOL	9.0	9.0
82-A	SF	SINGLE FAMILY RESIDENTIAL	34.1	37.0
82-B	SF	SINGLE FAMILY RESIDENTIAL	31.8	33.8
82-C	SF	SINGLE FAMILY RESIDENTIAL	25.2	25.2
82-D	SF	SINGLE FAMILY RESIDENTIAL	20.7	20.7
83	VC	VILLAGE COMMERCIAL	10.1	11.4
84	HD	HIGH DENSITY RESIDENTIAL	10.0	11.1
85-A	SF	SINGLE FAMILY RESIDENTIAL	21.3	21.8
85-B	SF	SINGLE FAMILY RESIDENTIAL	22.6	23.1
86-A	SF	SINGLE FAMILY RESIDENTIAL	19.5	20.0
86-B	SF	SINGLE FAMILY RESIDENTIAL	18.1	19.9
87	HD	HIGH DENSITY RESIDENTIAL	11.0	12.3
88	RTC	REGIONAL TOWN CENTER	26.0	28.3
89	SWD	STORM WATER DETENTION	24.9	24.9
90	MD	MEDIUM DENSITY RESIDENTIAL	14.7	15.5
91	DP	DRAINAGE PARKWAY	15.3	16.6
92-A	MD	MEDIUM DENSITY RESIDENTIAL	22.1	23.2
92-B	SF	SINGLE FAMILY RESIDENTIAL	16.8	16.8
92-C	MD	MEDIUM DENSITY RESIDENTIAL	14.0	14.0
93	HD	HIGH DENSITY RESIDENTIAL	10.0	10.7
94	RTC	REGIONAL TOWN CENTER	49.0	50.4
101-A	DP	DRAINAGE PARKWAY	1.9	2.0
106	GB	GREENBELT	4.0	4.2
107-A	GB	GREENBELT	5.3	5.5
107-B	GB	GREENBELT	7.4	7.4
107-C	GB	GREENBELT	2.4	2.4
107-D	GB	GREENBELT	2.3	2.4
108-A	GB	GREENBELT	4.4	7.7
108-B	GB	GREENBELT	3.7	3.7
108-C	GB	GREENBELT	4.4	4.4
108-D	GB	GREENBELT	4.9	4.9
108-E	GB	GREENBELT	1.1	1.1
108-F	GB	GREENBELT	3.4	3.8
109-A	GB	GREENBELT	2.5	4.9
109-B	GB	GREENBELT	2.5	4.5
110	DP	DRAINAGE PARKWAY	38.8	42.0
111	OS	OPEN SPACE	12.0	12.2
ARTERIAL/COLLECTOR ROADS		ARTERIAL/ COLLECTOR ROADS	~~80.4~~ 84.6	
SUBTOTAL - EM ACREAGE			1514.0	1516.0
1-A	SF	SINGLE FAMILY RESIDENTIAL	23.7	25.9
1-B	SF	SINGLE FAMILY RESIDENTIAL	24.5	26.0
1-C	SF	SINGLE FAMILY RESIDENTIAL	21.4	21.5
1-D	SF	SINGLE FAMILY RESIDENTIAL	21.6	22.1
1-E	SF	SINGLE FAMILY RESIDENTIAL	21.8	22.6
1-F	PARK	PARK	5.0	5.3
2-A	SF	SINGLE FAMILY RESIDENTIAL	19.9	20.3
2-B	SF	SINGLE FAMILY RESIDENTIAL	24.0	24.5
2-C	SF	SINGLE FAMILY RESIDENTIAL	27.4	28.3
3-A	SF	SINGLE FAMILY RESIDENTIAL	21.4	23.4
3-B	SF	SINGLE FAMILY RESIDENTIAL	23.5	24.1
3-C	SF	SINGLE FAMILY RESIDENTIAL	23.1	23.9
4-A	SF	SINGLE FAMILY RESIDENTIAL	28.3	28.8
4-B	SF	SINGLE FAMILY RESIDENTIAL	27.2	28.9
5-A	MP	INDUSTRIAL PARK	12.9	13.7
5-B	MP	INDUSTRIAL PARK	13.8	15.0
5-C	MP	INDUSTRIAL PARK	12.5	13.7
6-A	SF	SINGLE FAMILY RESIDENTIAL	29.7	30.6
6-B	SF	SINGLE FAMILY RESIDENTIAL	23.8	25.4
6-C	SF	SINGLE FAMILY RESIDENTIAL	26.0	27.7
7	PARK	PARK	5.0	5.0
8	ES	ELEMENTARY SCHOOL	9.0	9.3
9-A	SF	SINGLE FAMILY RESIDENTIAL	25.5	27.1
9-B	SF	SINGLE FAMILY RESIDENTIAL	22.8	23.9
10	MS	MIDDLE SCHOOL	20.0	20.5
11-A	MD	MEDIUM DENSITY RESIDENTIAL	13.4	13.9
11-B	MD	MEDIUM DENSITY RESIDENTIAL	13.4	13.4
12-A	MD	MEDIUM DENSITY RESIDENTIAL	12.0	13.2
12-B	MD	MEDIUM DENSITY RESIDENTIAL	14.8	15.5
13-A	SF	SINGLE FAMILY RESIDENTIAL	24.3	25.9
13-B	SF	SINGLE FAMILY RESIDENTIAL	21.4	22.1
13-C	SF	SINGLE FAMILY RESIDENTIAL	22.3	22.7
13-D	SF	SINGLE FAMILY RESIDENTIAL	24.8	28.5
13-E	SF	SINGLE FAMILY RESIDENTIAL	22.8	23.5
14-A	SF	SINGLE FAMILY RESIDENTIAL	15.7	16.6
14-B	SF	SINGLE FAMILY RESIDENTIAL	25.2	26.8
14-C	SF	SINGLE FAMILY RESIDENTIAL	23.0	24.3
14-D	SF	SINGLE FAMILY RESIDENTIAL	20.1	22.2
15	ES	ELEMENTARY SCHOOL	9.4	9.7
16/17	PARK/OS	PARK/OS	✱20.4	21.0
18-A	MD	MEDIUM DENSITY RESIDENTIAL	10.9	12.3
18-B	MD	MEDIUM DENSITY RESIDENTIAL	10.9	11.8
19-A	MD	MEDIUM DENSITY RESIDENTIAL	32.8	34.7
19-B	HD	HIGH DENSITY RESIDENTIAL	10.5	11.8
21	P/QP	PUBLIC/ QUASI-PUBLIC	2.5	5.3
22	BP	BUSINESS PARK	19.6	20.4
23	RTC	REGIONAL TOWN CENTER	37.9	41.2
24	BP	BUSINESS PARK	17.9	20.3
25-A	MP	INDUSTRIAL PARK	22.5	23.6
25-B	CP	COMMUNITY PARK	24.3	26.4
25-C	MP	INDUSTRIAL PARK	21.1	22.5
30	OS/P	OPEN SPACE/ PRESERVE	12.0	13.3
31	BP	BUSINESS PARK	11.4	12.7
32	PARK	PARK	7.0	7.0
33	HD	HIGH DENSITY RESIDENTIAL	13.5	14.9
34	MD	MEDIUM DENSITY RESIDENTIAL	20.3	22.5
35-A	SF	SINGLE FAMILY RESIDENTIAL	20.6	22.2
35-B	SF	SINGLE FAMILY RESIDENTIAL	18.0	19.5
36-A	SF	SINGLE FAMILY RESIDENTIAL	19.1	20.4
36-B	HD	HIGH DENSITY RESIDENTIAL	9.0	10.0
37-A	SF	SINGLE FAMILY RESIDENTIAL	29.0	29.4
37-B	SF	SINGLE FAMILY RESIDENTIAL	24.6	26.3
38	VC	VILLAGE COMMERCIAL	10.0	11.1
39-A	MD	MEDIUM DENSITY RESIDENTIAL	20.4	21.1
39-B	SF	SINGLE FAMILY RESIDENTIAL	18.7	20.2
40	HD	HIGH DENSITY RESIDENTIAL	9.0	9.7
41	PARK	PARK	5.0	5.0
42	ES	ELEMENTARY SCHOOL	9.0	9.5
43	SF	SINGLE FAMILY RESIDENTIAL	20.6	22.7
44	PR	PRIVATE RECREATION	52.5	54.2
45-A	SF	SINGLE FAMILY RESIDENTIAL	27.7	28.0
45-B	SF	SINGLE FAMILY RESIDENTIAL	38.0	38.7
47-A	SF	SINGLE FAMILY RESIDENTIAL	22.0	23.6
47-B	SF	SINGLE FAMILY RESIDENTIAL	16.4	17.2
48-A	SF	SINGLE FAMILY RESIDENTIAL	23.0	23.6
48-B	SF	SINGLE FAMILY RESIDENTIAL	25.9	27.4
49	SF	SINGLE FAMILY RESIDENTIAL	16.7	18.2
50	ES	ELEMENTARY SCHOOL	9.0	9.6
51	PARK	PARK	5.0	5.0
55	SF	SINGLE FAMILY RESIDENTIAL	13.1	13.7
56	PARK	PARK	5.0	5.3
57	SF	SINGLE FAMILY RESIDENTIAL	26.7	28.7
58-A	CP	COMMUNITY PARK	27.4	29.8
58-B	CP	COMMUNITY PARK	5.6	6.3
58-C	DP	DRAINAGE PARKWAY	2.5	2.6
58-E	DP	DRAINAGE PARKWAY	1.5	1.6
95	WP	WETLAND PRESERVE	128.6	135.9
96	WP	WETLAND PRESERVE	338.6	351.4
97	WP	WETLAND PRESERVE	42.8	43.5
98	DP	DRAINAGE PARKWAY	6.1	6.2
99	DP	DRAINAGE PARKWAY	12.2	12.5
100	DP	DRAINAGE PARKWAY	7.4	7.7
101-B	DP	DRAINAGE PARKWAY	9.8	10.1
102	DP	DRAINAGE PARKWAY	16.5	17.0
103	DP	DRAINAGE PARKWAY	10.8	11.2
104	DP	DRAINAGE PARKWAY	10.5	11.2
105	DP	DRAINAGE PARKWAY	7.4	9.0
ARTERIAL/COLLECTOR ROADS		ARTERIAL/ COLLECTOR ROADS	173.6	
SUBTOTAL: EASTON DEVELOPMENT COMPANY (EDC) ACREAGE:			2311.9	2311.9
TOTAL - RIO DEL ORO ACREAGE:			3827.9	3827.9

✱10.2 PARK, 10.2 OPEN SPACE: TO BE DETERMINED WITH SMALL LOT TENTATIVE SUBDIVISION MAP.

LOCATION MAP



NORTH
0
1,000
500
1,500

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

CITY OF RANCHO CORDOVA

CITY COUNCIL RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, APPROVING A MAJOR DESIGN REVIEW FOR PROJECT SUNRISE PROJECT NO. PLND-0821-0003

WHEREAS, Panattoni Development Company, Inc. (hereinafter referred to as Applicant) filed an application with the City of Rancho Cordova for a Major Design Review approval for Project Sunrise; and

WHEREAS, the City Council is the appropriate authority to hear and take action on this project; and

WHEREAS, the project site is located within the Rio Del Oro Specific Plan Parcel 71; southwest corner of future extensions of Rancho Cordova Parkway and International Drive; a portion of APN 072-0370-106-0000; and

WHEREAS, the project was analyzed as part of the Rio Del Oro Specific Plan Environmental Impact Report/Environmental Impact Statement (EIR/EIS) which was adopted by Resolution 92-2010 certifying the Final EIR/EIS (State Clearinghouse #2003122057); and

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 March 21, 2022 hearing.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA HEREBY RESOLVES AS FOLLOWS:

1. The proposed project is exempt from CEQA under Guidelines Section 15183, Projects Consistent with a Community Plan, General Plan, and Zoning Code. The following evidence supports the CEQA exemption.

   Finding: The project has been analyzed and is exempt per California Environmental Quality Act Guidelines Section 15183 15183, Projects Consistent with a Community Plan, General Plan, and Zoning Code. The following evidence supports the CEQA exemption.

   Evidence: The project exempt from CEQA per Section 15183, consistent with the Community Plan, General Plan or Zoning for which an EIR was certified. The City Council adopted Resolution 92-2010 certifying a Final Environmental Impact Report/Environment Impact Statement (State Clearinghouse #2003122057) for the RDO Specific Plan, pursuant to the California Environmental Quality Act (CEQA).

   The proposed project is a permitted use within the RDO Specific Plan and was contemplated in the previously certified EIR/EIS. Additional traffic analysis was conducted for the project against the previous EIR/EIS and was found to be consistent in terms of traffic and transportation. A Mitigation Monitoring and Reporting Program was prepared as part of the original RDO Specific Plan approval and all projects are subject to those applicable mitigation measures. A condition of approval has been placed on the proejct that requires compliance with applciable mitigation measures such as pre construction surveys. The Sacramento Air Quality Management District has reviewed the project and found it to be

consistent with the RDO Specific Plan Air Quality Management Plan. No additional studies were required of the proposed project, as it will adhere to the previously certified EIR/EIS.

2. Approve the Major Design Review, subject to the Major Design Review Package (Exhibit A), the Conditions of Approval (Exhibit B), and Phasing Plan (Exhibit D); supported by the following Findings and Evidence, as required by Zoning Code Section 23.140.070:

   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 proposed project is consistent with the purpose and intent of adopted policies and regulations, including the RDO Specific Plan. The use is listed as a permitted used within the plan and was analyzed against the RDO Specific Plan Development Standards and Design Guidelines. The proposed building is consistent in height, setbacks, and architectural requirements of the plan. The project meets the applicable parking, lighting, and landscape requirements of the Zoning Code. The use is not requesting any deviations, exemptions, or variances from standards that apply to the site.

   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 site design, building architecture, and landscape plan are consistent with the RDO Specific Plan Development Standards and Design Guidelines and Zoning Code. The proposed building is located in the most suitable location on the site that provides adequate emergency safety access to the buildings, on-site circulation needs and overall suitability of the site. The proposed project material and colors are consistent with the area design guidelines and incorporate additional architectural character into a future developing area.

   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 proposed project design is consistent with the RDO Specific Plan Development Standards and Design Guidelines. The design, color, and materials have been designed to integrate and compliment the future developed surrounding area, but also provide additional architectural character to the area. Lighting plans have been provided showing minimum light spill out to the property line.

   D. Finding: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

      Evidence: The proposed project will not substantially affect current traffic flows or existing modes of transportation circulation. Ingress and egress to the site will be from various points along Rancho Cordova Parkway, International Drive and Gold Dredge

Way. Some of these access points will accommodate one-way traffic, while others will have an in and out lane. Additionally, these access points may only be a right-in-right-out. There will be adequate signage throughout the site to avoid any circulation conflicts. Bike racks have been included in the site plan.

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

AYES:

NOES:

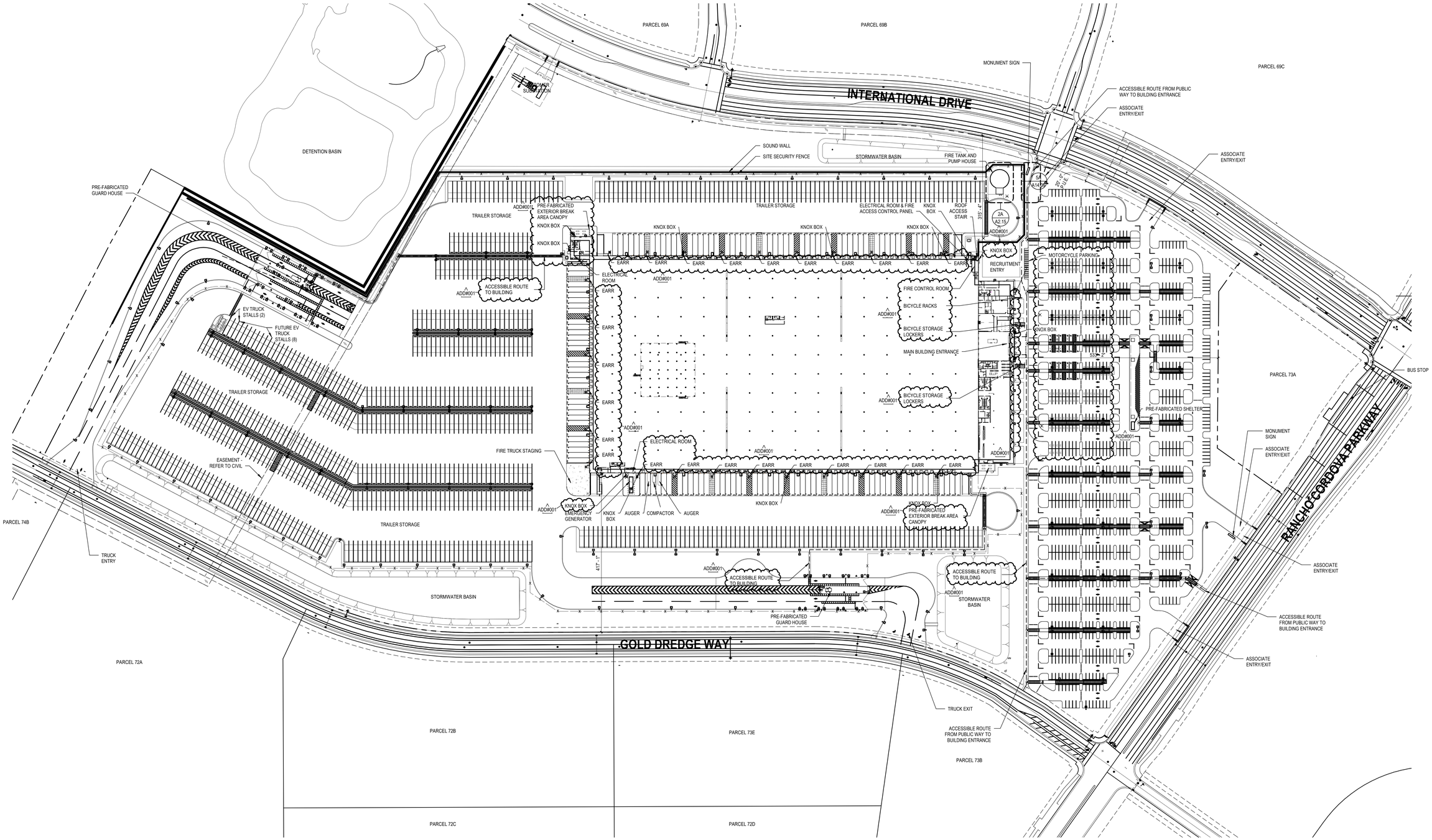
ABSENT:

ABSTAIN:

_____
Donald Terry, Mayor

ATTEST:

_____
Stacy Leitner, CMC
City Clerk



N

ARCHITECTURAL SITE PLAN

SCALE: 1" = 100'-0"

BUILDING FOOTPRINT = +/- 629,186 SF
130 LOADING DOCKS
702 TRAILER PARKING STALLS (702 TARGET)
832 TOTAL TRAILER LOCATIONS (832 TARGET)
1,008 CAR PARKING STALLS (1,000 TARGET)

APPROXIMATE GROSS SITE AREA: +/-88.80 AC
APPROXIMATE NET AREA: +/-83.36 AC

PROJECT DATA

Zoning - (LI) Light Industrial

Gross Site Area - 88.80 Acres
Net Site Area - 83.36 Acres
Building Footprint - 629,186 SF
Lot Coverage - 17.3%
Building Height - 50'-2"

Front Setback Required - 20'-0"
Side Setback Required - 30'-0" at corner streets, 20'-0" at interior sies

Vehicle Parking Required (Rio Del Oro Specific Plan) - 1 / employee = 1,000 Spaces
Vehicle Parking Provided - 1,008 spaces
Accessible Parking Required - 20 + 1/100 over 1,000 = 21 spaces
Accessible Parking Provided - 24 spaces (8 van, 16 car)
Bicycle Parking Required (CALGreen 2019 x Rio Del Oro Air Quality & Emissions Reduction Plan) - .05 x 1,008 x 1.20= 61
Bicycle Parking Provided - 62 spaces
CLEAN AIR / VAN POOL / EV Required (Rio Del Oro Air Quality & Emissions Reduction Plan) - .10 x 1,008 = 101 spaces
CLEAN AIR / VAN POOL / EV Provided - 101 spaces
EVSE Installed Required (City of Rancho Cordova) = 2 spaces
EVSE Installed Provided - 2 spaces
EVSE Future Ready Required (CALGreen 2019) - .06 x 1,008 = 61 spaces
EVSE Future Ready Provided - 60 spaces + 2 installed = 62 total

PLAN KEY

♿	-	ACCESSIBLE PARKING SPACE
●	-	INSTALLED EV CAR CHARGER
○	-	FUTURE EV READY
V	-	ACCESSIBLE VAN PARKING SPACE
C	-	CLEAN AIR / VAN POOL / EV
EAR	-	EXTERIOR AREA OF ASSISTED RESCUE
AM	-	AMBULATORY
♙	-	ACCESSIBLE ENTRY/EXIT TO BUILDING

*ALL WAREHOUSE EXITS CONTAIN EXTERIOR AREAS OF ASSISTED RESCUE

ADD#001

DLR Group
© DLR Group

LICENSED ARCHITECT
C-27769
EXP. 5-31-23
STATE OF CALIFORNIA

Attachment A11
to Addendum ADD#001
dated February 8, 2022

PROJECT SUNRISE
PANATTONI DEVELOPMENT COMPANY
RANCHO CORDOVA, CA

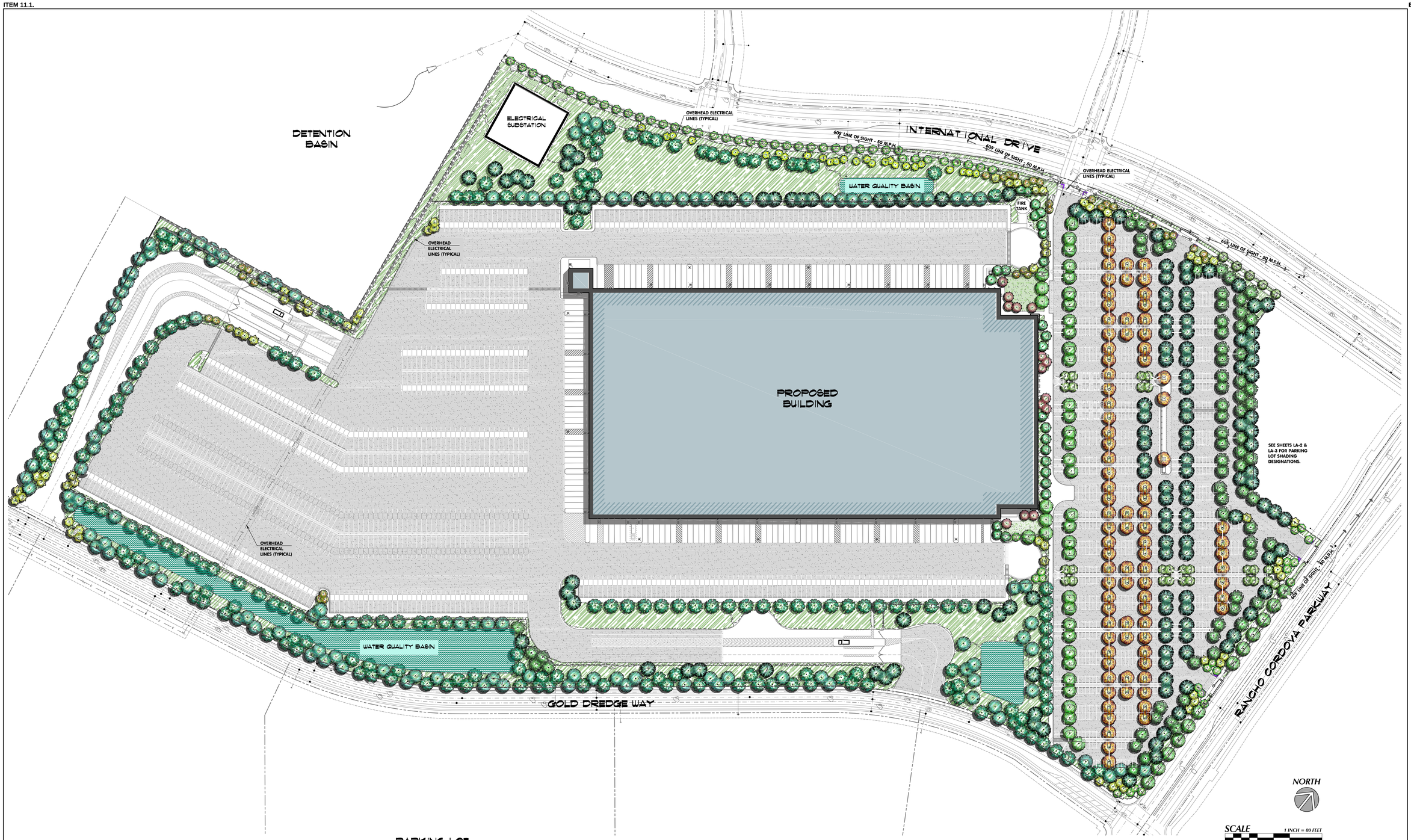
CONSTRUCTION DOCUMENTS
12.02.2021
REVISIONS
ADD#001 02.08.2022

75-21908-00

ARCHITECTURAL SITE PLAN

AS1.1

2/8/2022 3:01:11 PM



WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ETo) 51.9

Hydrozone # /Planting Description*	Plant Factor (PF)	Irrigation Method*	Irrigation Efficiency (IE)*	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)*
Regular Landscape Areas							
Turf	0.7	Overhead	0.75	0.93	14,042	13,059	420,214
Low Water Use	0.2	Overhead	0.75	0.27	597,653	161,366	5,192,445
Low Water Use	0.2	Drip	0.81	0.25	199,997	49,999	1,608,876
				Totals	[redacted]	[redacted]	
Special Landscape Areas							
				1			
[redacted]				1			
				1			
				Totals	(C)	(D)	
						ETWU Total	[redacted]
						Maximum Allowed Water Allowance (MAWA)*	[redacted]

*Hydrozone #/Planting Description
E.g.
1) front lawn
2) low water use plantings
3) medium water use planting

*Irrigation Method
overhead spray
or drip

*Irrigation Efficiency
0.75 for spray head
0.81 for drip

*ETWU (Annual Gallons Required) = Eto x 0.62 x ETAF x Area
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.

*MAWA (Annual Gallons Allowed) = (Eto) (0.62) ([ETAF x LA] + [(1-ETAF) x SLA])
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year; LA is the total landscape area in square feet; SLA is the total special landscape area in square feet; ETAF is 0.55 for residential areas and 0.45 for non-residential areas.

ETAF Calculations

Regular Landscape Areas	
Total ETAF x Area	[redacted]
Total Area	[redacted]
Average ETAF	[redacted]

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

All Landscape Areas	
Total ETAF x Area	(B+D)
Total Area	(A+C)
Sitewide ETAF	(B+D) ÷ (A+C)

HISTORY

1. New Appendix B filed 9-10-2009; operative 9-10-2009 pursuant to Government Code section 11343.4 (Register 2009, No. 37).

2. Repealer and new Appendix B filed 9-15-2015; operative 9-15-2015. Exempt from OAL review and submitted to OAL for printing only pursuant to Governor's Executive Order No. B-29-15 (4-5-2015) (Register 2015, No. 38).

This database is current through 12/24/21 Register 2021, No. 52

PARKING LOT SHADE CALCULATIONS:

TREE TYPE	AREA/ FULL		QUANTITY FULL	3/4	1/2	1/4	SUBTOTAL	TOTAL
20' DIA. TREES								
CERCIS OCCIDENTALIS	314	S.F.	0	0	4	0	628	S.F.
ERYTHRINA C.	314	S.F.	0	0	1	0	157	S.F.
							20' TOTAL:	785 S.F.
25' DIA. TREES								
PARKINSONIA X.	490	S.F.	0	0	4	0	980	S.F.
ULMUS PROPINQUA	490	S.F.	0	24	2	0	9310	S.F.
							25' TOTAL:	10290 S.F.
35' DIA. TREES								
CEDRUS DEODARA	962	S.F.	55	0	25	0	64935	S.F.
PISTACHIA CHINENSIS	962	S.F.	85	1	1	0	82973	S.F.
QUERCUS LOBATA	962	S.F.	0	0	3	0	1443	S.F.
QUERCUS WISLIZENII	962	S.F.	0	1	1	0	1203	S.F.
SCHINUS MOLLE	962	S.F.	30	5	23	0	43531	S.F.
SOPHORA JAPONICA	962	S.F.	33	0	0	0	31746	S.F.
							35' TOTAL:	225830 S.F.

PARKING AREA: 469227 S.F.
SHADE REQUIRED: 50% 234613 S.F.
SHADE PROVIDED: 51% 236828 S.F.

PRELIMINARY NOTES:

1. 25% OF ALL TREES WILL BE 24" BOX SIZE.
   PROPOSED TREE QUANTITY: 903
   REQUIRED 24" BOX SIZE: 226
   24" BOX TREES PROVIDED: 245
2. 30% OF ALL TREES WILL BE EVERGREEN.
   PROPOSED TREE QUANTITY: 903
   REQUIRED EVERGREEN TREES: 271
   EVERGREEN TREES PROVIDED: 382
3. ROOT BARRIERS WILL BE PROVIDED FOR ALL TREES WITHIN 10' OF PAVING OR HARDSCAPE.
4. PRE-EMERGENT WILL BE PROVIDED IN ALL NON-SEEDED AREAS PRIOR TO PLANTING.
5. ALL TREES WILL MAINTAIN A 10' MINIMUM CLEARANCE FROM LIGHT POLES AND 6' FROM UNDERGROUND UTILITIES. TREE LOCATIONS WILL BE ADJUSTED AS NECESSARY DURING CONSTRUCTION DOCUMENT PREPARATION WHEN ALL UTILITIES HAVE BEEN DESIGNED.
6. WATER QUALITY BASINS WILL GENERALLY BE IRRIGATED WITH ROTOR HEADS. SHRUB & TREE PLACEMENT WILL BE COORDINATED TO PREVENT OBSTRUCTION OF THE SPRAY PATTERNS.
7. PLANT HEIGHTS WILL NOT EXCEED 30" WITHIN THE LINES OF SIGHT ARE SHOWN ON THE DRAWINGS AND IN CLEAR VISION TRIANGLE AREAS.

TREE LIST & LEGEND

SYMBOL	BOTANIC NAME/COMMON NAME	MATURE HT.X.W.D.	SIZE	QUANTITY
	ACACIA ANEURA/MULGA	20'x20'	24" BOX	26
	ACER TRUNCATUM/SHANTUNG MAPLE	25'x25'	24" BOX	14
	CEDRUS DEODARA/DEODAR CEDAR	70'x35'	15 GALLON	137
	CERCIS OCCIDENTALIS/WESTERN REDBUD STANDARD	20'x20'	24" BOX	64
	ERYTHRINA CRISTA-GALLI/COCKSPUR CORAL TREE	20'x20'	24" BOX	32
	LAURUS NOBILIS 'SARATOGA'/GRECIAN LAUREL	40'x30'	24" BOX	25
	PARKINSONIA X. 'DESERT MUSEUM'/PALO VERDE	25'x25'	15 GALLON	61
	PISTACIA CHINENSIS/CHINESE PISTACHE	40'x40'	15 GALLON	88
	QUERCUS LOBATA/VALLEY OAK*	80'x80'	15 GALLON	178
	QUERCUS WISLIZENII/INTERIOR LIVE OAK	60'x80'	15 GALLON	125
	SCHINUS MOLLE/CALIF. PEPPER	40'x50'	15 GALLON	69
	SOPHORA JAPONICA/JAPANESE PAGODA TREE	50'x60'	24" BOX	52
	ULMUS PROPINQUA 'EMERALD SUNSHINE/HYBRID ELM	40'x30'	24" BOX	32
	SHRUB & GROUNDCOVER PLANTING AREA (SEE PLANT PALETTE AT RIGHT)			
	WATER QUALITY BASIN (SEE PLANTS MARKED "*" IN THE PLANT PALETTE AT RIGHT)			
	TURF AREA, RECREATIONAL		SOD	
	EDGING, STEEL (BLACK, 4" DEPTH)			

CLEAR VISION TRIANGLE FOR INTERSECTIONS AT PRIVATE DRIVEWAYS & PUBLIC STREETS. NO OBSTRUCTIONS SHALL EXCEED 2'-6" IN HEIGHT.

PLANT PALETTE

BOTANIC NAME/COMMON NAME	MATURE HT.X.W.D.	SIZE
ACACIA REDOLENS 'DESERT CARPET'/PROSTRATE ACACIA	2'x12'	1 GALLON
ARCTOSTAPHYLOS D. 'HOWARD McMINN'/MANZANITA*	4'x8'	5 GALLON
ASCLEPIAS SPECIOSA/SHOWY MILK WEED	3'x4'	1 GALLON
AGAVE X. 'BLUE GLOW/BLUE GLOW AGAVE	2'x2'	5 GALLON
AGAVE WEBERI/WEBER AGAVE	5'x8'	5 GALLON
BACCHARIS PILULARIS 'PIGEON POINT'/DWF. COYOTE BRUSH*	2'x8'	1 GALLON
CHONDROPETALUM ELEPHANTINUM/CAPE RUSH*	4'x6'	5 GALLON
CISTUS COBARIENSIS 'LITTLE MISS SUNSHINE'/YELLOW ROCKROSE	2'x5'	5 GALLON
CISTUS HYBRIDUS/WHITE ROCKROSE	4'x8'	5 GALLON
CISTUS SALVIIFOLIUS/SAGELEAF ROCKROSE	2'x10'	1 GALLON
CALLISTEMON V. 'LITTLE JOHN'/DWF. BOTTLE BRUSH	3'x8'	5 GALLON
COTONEASTER D. 'LOWFAST'/PROSTRATE COTONEASTER	1'x10'	1 GALLON
CAREX DIVULSA/EURASIAN GRAY SEDGE (15" O.C. TRIANG.)*	1'x2'	LINERS
DIETES BICOLOR	3'x5'	5 GALLON
DIANELLA REVOLUTA 'LITTLE REV'/BLACK FLAX LILY	2'x3'	5 GALLON
GRASSES, NATIVE PERENNIAL	1'	HYDROSEED
HESPERALOE X. 'BRAKE LIGHTS/HYBRID RED YUCCA	2'x2'	2 GALLON
IRIS DOUGLASIANA/DOUGLAS IRIS	1'x2'	1 GALLON
JUNIPERUS SABINA 'BUFFALO'/PROSTRATE JUNIPER	2'x10'	1 GALLON
JUNIPERUS C. 'SAN JOSE'/SAN JOSE JUNIPER	2'x8'	1 GALLON
KNIPHOFIA UVARIA 'FLAMENCO'/RED HOT POKER	3'x4'	1 GALLON

BOTANIC NAME/COMMON NAME	MATURE HT.X.W.D.	SIZE
LOMANDRA LONGIFOLIA 'LOMLON/LIME TUFF DWARF MAT RUSH	3'x4'	1 GALLON
LIMONIUM PEREZII/SEA LAVENDER	3'x4'	1 GALLON
MACFADYENA UNGUIS-CATI/CATS CLAW VINE	30'x30'	5 GALLON
MAHONIA AQUIFOLIUM/OREGON GRAPE	4'x6'	5 GALLON
MUHLENBERGIA CAPILLARIS/PURPLE MUHLY GRASS	3'x4'	1 GALLON
MUHLENBERGIA RIGENS/DEER GRASS*	3'x6'	5 GALLON
MYOPORUM PARVIFOLIUM/CREEPING BOOBIALLA	1'x12'	1 GALLON
NERIUM O. 'DWARF RED'/PETITE RED OLEANDER	3'x5'	5 GALLON
NANDINA DOMESTICA 'GULF STREAM/DWF. HEAVENLY BAMBOO	2'x2'	5 GALLON
PANICUM VIRGATUM 'SHENANDOAH/SWITCH GRASS*	3'x4'	1 GALLON
PENSTEMON HETEROPHYLLUS 'MARGARITA B.O.P./BEARD TONGUE	1'x3'	1 GALLON
PYRACANTHA F. 'MOHAVE'/MOHAVE PYRACANTHA	8'x12'	5 GALLON
PYRACANTHA F. 'SANTA CRUZ'/PROSTRATE PYRACANTHA	2'x8'	1 GALLON
ROSA CALIFORNICA/WILD ROSE*	4'x8'	5 GALLON
ROSMARINUS O. 'COLLINGWOOD INGRAM'/ROSEMARY	2'x6'	1 GALLON
SALVIA X. 'BEE'S BLISS'/CREEPING SAGE*	2'x8'	1 GALLON
SALVIA C.WINNEFRED GILMAN/COMPACT CLEVELAND SAGE	2'x6'	5 GALLON
TEUCRIUM CHAMAEDRYS/DWARF GERMANDER	2'x4'	1 GALLON
TULBAGHIA VIOLACEA/SOCIETY GARLIC	2'x3'	1 GALLON
*PLANTS SUITABLE FOR WATER QUALITY BASIN USE		

NOTE: ACER TRUNCATUM IS LISTED AS 'DROUGHT TOLERANT' IN THE CITY'S MASTER TREE LIST & SUNSET WESTERN GARDEN BOOK. ALL OTHER PROPOSED PLANTS ARE NOTED AS 'LOW OR 'VERY LOW' WATER USERS IN THE STATE'S WU.C.O.L.S. IV DATABASE.

COMPLIANCE STATEMENT

I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE. I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

SIGNATURE 01/03/22 DATE

Garth Ruffner
Landscape Architect
(916)797-2576
GarthRuffner.com
California R.L.A. #2898
4120 Douglas Blvd., Suite 306, #291
Roseville, CA 95746-5936

Engineer's Stamp

LICENSED LANDSCAPE ARCHITECT
GARTH RUFFNER LA #2898
01/03/22
5/31/22
RENEWAL
STATE OF CALIFORNIA

Project

PROJECT SUNRISE FACILITY
RANCHO CORDOVA, CA

Sheet Title

FULL SITE PRELIMINARY LANDSCAPE PLAN

PANATTONI

Date	1/10/2022
Designed	GR
Drawn	GR
Checked	GR
JOB NO.	2100-044 (41034)
Drawing No.	

LA-1

TREE KEY & LEGEND

SYMBOL	BOTANIC NAME/COMMON NAME
	ACACIA ANEURA/MULGA
	ACER TRUNCATUM/SHANTUNG MAPLE
	CEDRUS DEODARA/DEODAR CEDAR
	CERCIS OCCIDENTALIS/WESTERN REDBUD
	ERYTHRINA CRISTA-GALLI/COCKSPUR CORAL TREE
	LAURUS NOBILIS 'SARATOGA'/GRECIAN LAUREL
	PARKINSONIA X. 'DESERT MUSEUM'/PALO VERDE
	PISTACIA CHINENSIS/CHINESE PISTACHE
	QUERCUS LOBATA/VALLEY OAK
	QUERCUS WISLIZENII/INTERIOR LIVE OAK
	SCHINUS MOLLE/CALIF. PEPPER
	SOPHORA JAPONICA/JAPANESE PAGODA TREE
	ULMUS PROPINQUA'EMERALD SUNSHINE'/HYBRID ELM
	SHRUB & GROUNDCOVER PLANTING AREA (SEE PLANT PALETTE, SHEET LA-1)
	WATER QUALITY BASIN (SEE PLANTS MARKED *** IN THE PLANT PALETTE, SHEET LA-1)
	TURF AREA, RECREATIONAL
	EDGING, STEEL (BLACK, 4" DEPTH)
	CLEAR VISION TRIANGLE AT DRIVEWAYS



NORTH

SCALE 1 INCH = 30 FEET
30 0 30 60

Garth Ruffner
Landscape Architect
(916)797-2576
GarthLA@aol.com
California R.L.A. #2898
4120 Douglas Blvd., Suite 306, #291
Roseville, CA 95746-5936

Engineer's Stamp

LICENSED LANDSCAPE ARCHITECT
GARTH RUFFNER CA #2898
01/09/22
RENEWAL 5/31/22
STATE OF CALIFORNIA

Project

PROJECT SUNRISE FACILITY
RANCHO CORDOVA, CA

Sheet Title

NORTH PARKING PRELIMINARY LANDSCAPE PLAN

PANATTONI

Date	1/10/2022
Designed	GR
Drawn	GR
Checked	GR
JOB NO.	2100-044 (41034)
Drawing No.	LA-2



Garth Ruffner
Landscape Architect
(916)797-2576
GarthRuffner.com
California R.L.A. #2898
4120 Douglas Blvd., Suite 306, #251
Roseville, CA 95746-5936

Engineer's Stamp

LICENSED LANDSCAPE ARCHITECT
GARTH RUFFNER CA #2898
01/09/22
5/31/22
RENEWAL
STATE OF CALIFORNIA

Project

PROJECT SUNRISE FACILITY
RANCHO CORDOVA, CA

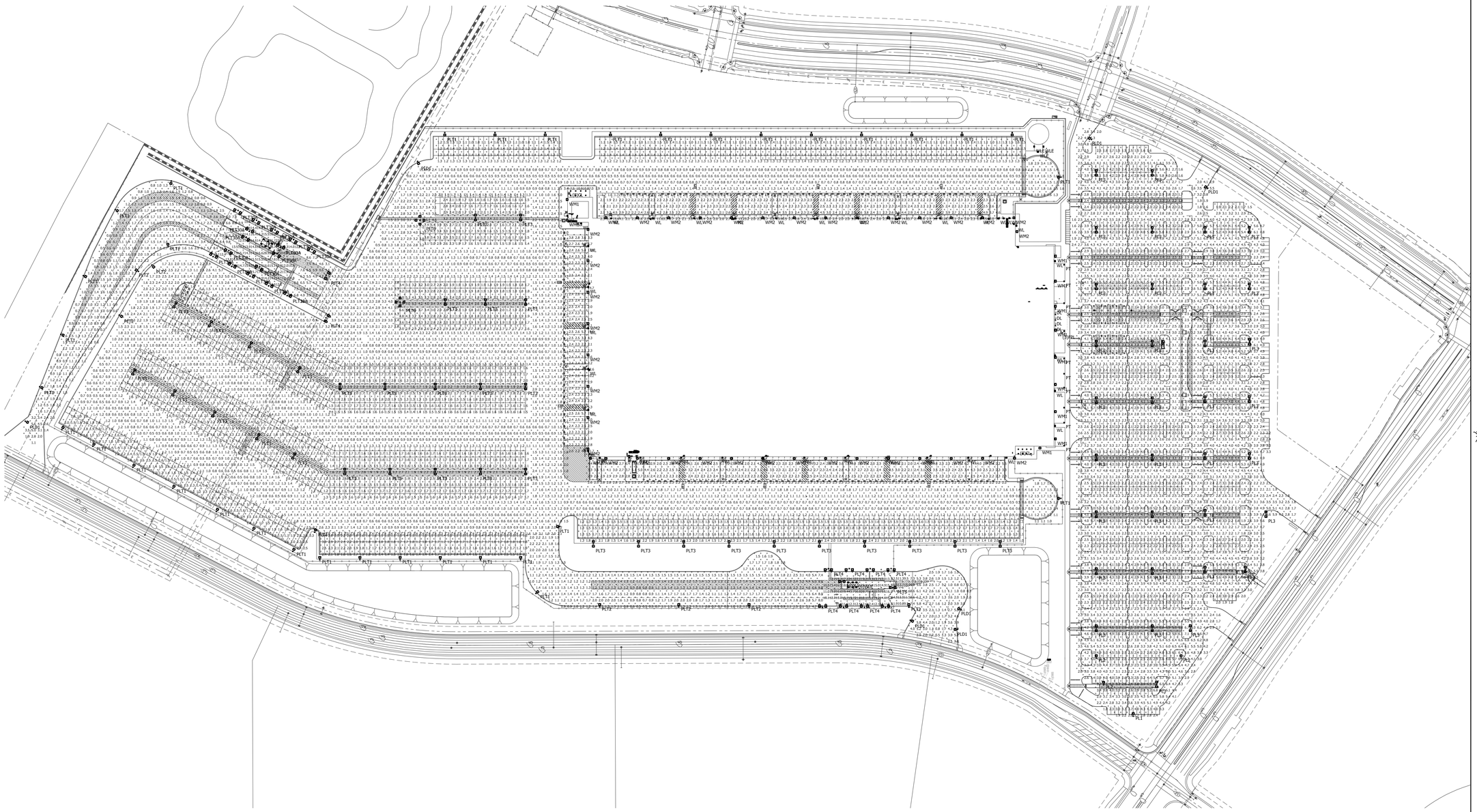
Sheet Title

SOUTH PARKING PRELIMINARY LANDSCAPE PLAN

PANATTONI®

Date	1/10/2022
Designed	GR
Drawn	GR
Checked	GR
JOB NO.	2100-044 (41034)
Drawing No.	

LA-3



SITE PHOTOMETRIC PLAN

0 50' 100' 200'

SCALE: 1" = 100'-0"

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
DOCK DOORS-60' OUT (1.5FC)	+	3.3 fc	19.0 fc	1.8 fc	10.6:1	1.8:1
DRIVE (0.5FC)	+	1.7 fc	8.9 fc	0.5 fc	17.8:1	3.4:1
DRIVE (0.5FC)	+	4.2 fc	15.0 fc	0.5 fc	30.0:1	8.4:1
DRIVE (TO PRIMARY GH) (0.5FC)	+	1.9 fc	12.4 fc	0.5 fc	24.8:1	3.8:1
GUARD HOUSE - SEC (10FC)	+	18.5 fc	62.6 fc	10.1 fc	6.2:1	1.8:1
GUARD HOUSE-PRIMARY (10FC)	+	16.2 fc	39.6 fc	10.5 fc	3.8:1	1.5:1
PARKING (1.5FC)	+	3.5 fc	7.1 fc	1.5 fc	4.7:1	2.3:1
TRAILER PARKING (1FC)	+	1.3 fc	1.6 fc	1.0 fc	1.6:1	1.3:1
TRAILER PARKING (1FC)	+	2.2 fc	7.4 fc	1.4 fc	5.3:1	1.6:1
TRAILER PARKING (1FC)	+	2.6 fc	8.0 fc	1.6 fc	5.0:1	1.6:1
TRAILER PARKING (1FC)	+	1.8 fc	3.4 fc	1.1 fc	3.1:1	1.6:1
TRAILER PARKING (1FC)	+	1.8 fc	3.5 fc	1.0 fc	3.5:1	1.8:1
TRAILER PARKING (1FC)	+	1.7 fc	3.4 fc	1.1 fc	3.1:1	1.5:1
TRAILER PARKING (1FC)	+	1.7 fc	2.4 fc	1.0 fc	2.4:1	1.7:1
TRUCK COURT (0.5FC)	+	1.4 fc	11.8 fc	0.5 fc	23.6:1	2.8:1

DLR Group
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JAMES W. KRAMER JR. E-15776 EXP. 9-30-22 ELECTRICAL STATE OF CALIFORNIA
12.03.21

Kramer Consulting Engineers, PLLC.
Lighting Design and Consulting Services
2650 Hardy Lane, Eagle Point, OR 97524
(541) 826-1004 (800) 826-2864
(541) 830-1004 - fax
www.kramerengineers.com

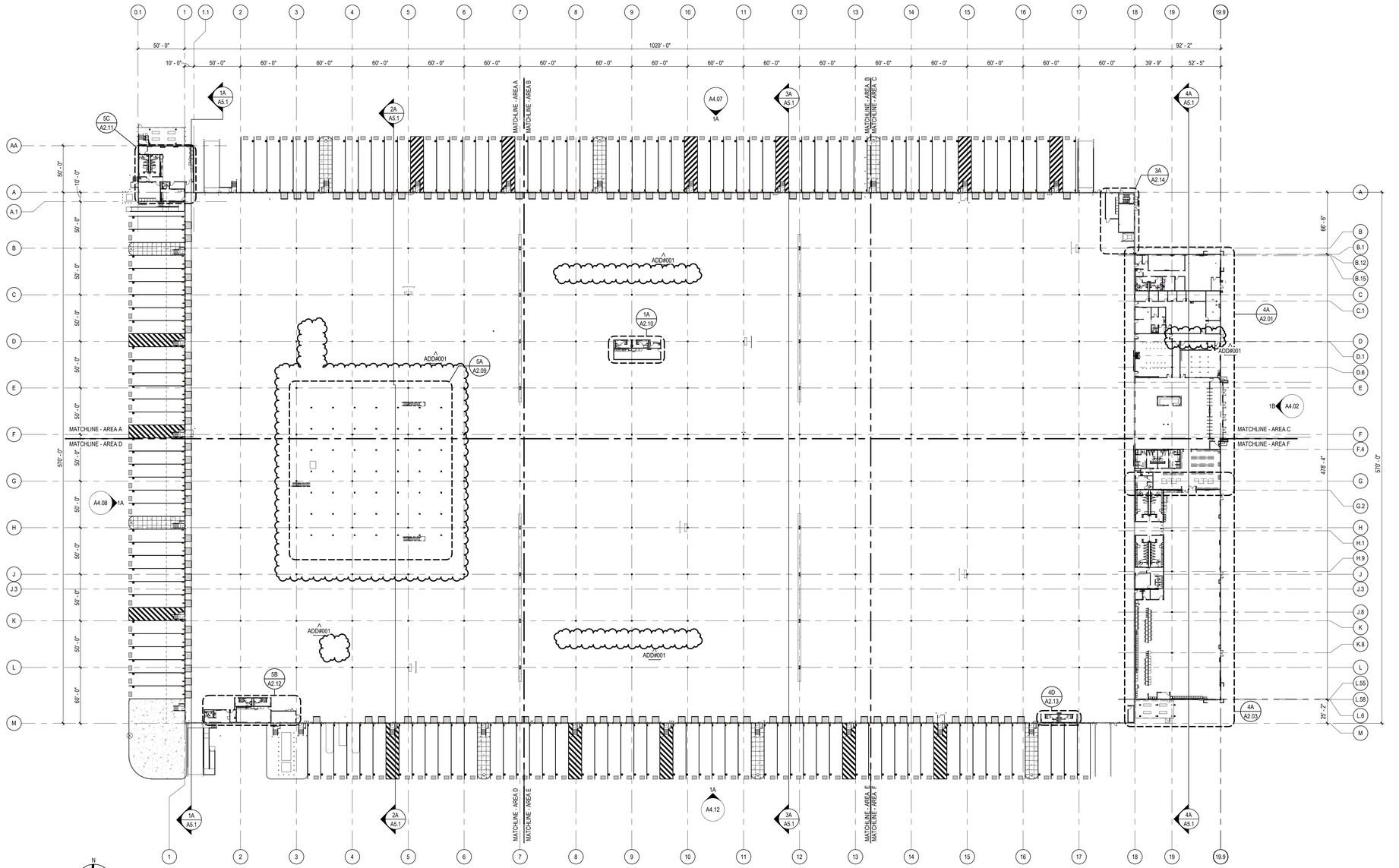
PROJECT SUNRISE
PANATTONI DEVELOPMENT COMPANY
RANCHO CORDOVA, CA

PERMIT SET
12.03.2021

75-21110-00

SITE PHOTOMETRIC PLAN

E1.02



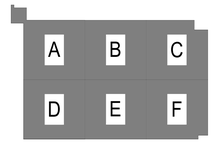
OVERALL FLOOR PLAN, LEVEL 1

SCALE: 1" = 50'-0"

GENERAL ARCHITECTURAL NOTES

1. ALL INTERIOR CMU WALLS SHALL BE 8 INCHES NOMINAL THICKNESS, UNLESS NOTED OTHERWISE.
2. WALL TYPES SHALL BE DESIGNATED ON FLOOR PLANS THUS: (1) SEE SHEET A0.1 FOR WALL TYPES.
3. ALL MASONRY WALLS AND INTERIOR STUD WALLS SHALL EXTEND TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE UNLESS NOTED OTHERWISE.
4. PROVISIONS SHALL BE MADE AT ALL FULL HEIGHT NON-BEARING WALLS FOR 2-INCH VERTICAL MOVEMENT OF THE BUILDING STRUCTURE WITHOUT TRANSFER OF COMPRESSIVE LOADS TO WALL. FILL IRREGULARITIES BETWEEN TOP OF WALL AND DECK ABOVE WITH MINERAL WOOL INSULATION OR FIRE STOPPING MATERIALS AS REQUIRED TO MEET FIRE RATING OF RESPECTIVE WALLS.
5. SEE STRUCTURAL DRAWINGS FOR BRACING OF NON-LOAD BEARING MASONRY WALLS.
6. FURNISH AND INSTALL FIRE-TREATED WOOD BLOCKING OR METAL BACKING PLATE IN METAL STUD PARTITIONS FOR THE PROPER ANCHORAGE OF ALL WALL ATTACHED ITEMS; I.E. TOILET ACCESSORIES, CASEWORK, MILLWORK, WALL-MOUNTED FIXTURES, MARKER BOARDS, TACK BOARDS, DOOR STOPS, AUDIO VISUAL BRACKETS, AND OTHER WALL ATTACHED ITEMS.
7. GYPSUM BOARD SURFACES SHALL BE ISOLATED WITH CONTROL JOINTS WHERE SHOWN ON DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS.
8. MASONRY CONTROL JOINTS (CJ) AND CONTROL JOINTS ABOVE (CJA) SHALL BE LOCATED AS SHOWN ON THE FLOOR PLAN AND BUILDING ELEVATIONS, AND WHERE LARGE PLUMBING VENTS OR RISERS OCCUR IN SINGLE WYTHE MASONRY WALLS, AND WHERE MASONRY WALLS BEARING ON THE CONCRETE FLOOR SLAB ABUT MASONRY WALLS BEARING ON CONCRETE FOOTINGS OR AS INDICATED ON DRAWINGS.
9. "MBD" AND "TBD" INDICATE MARKER BOARDS AND TACK BOARDS ON PLANS. THE LENGTH PRECEDES THE DESIGNATION (EXAMPLE 16' MBD). ALL BOARDS ARE 4'-0" TALL. SEE WALL ELEVATIONS OR SPECIFICATIONS FOR MOUNTING HEIGHT.
10. EXTEND FURRING CHANNELS AND GYPSUM BOARD UP 6 INCHES ABOVE FINISHED CEILING ON CMU WALLS.
11. SCRIBE GYPSUM WALL BOARD OF WALLS AND PARTITIONS TO IRREGULARITIES OF DECK ABOVE. SEAL TIGHTLY AROUND ALL PENETRATIONS.

KEY PLAN



DLR Group
© DLR Group

LICENSED ARCHITECT
JACK C. GILES
C-27769
EXP. 5-31-23
STATE OF CALIFORNIA

Attachment A12
to Addendum No. ADD#001
dated February 8, 2022

PROJECT SUNRISE
PANATTONI DEVELOPMENT COMPANY
RANCHO CORDOVA, CA

CONSTRUCTION DOCUMENTS
12.02.2021
REVISIONS
ADD#001 02.08.2022

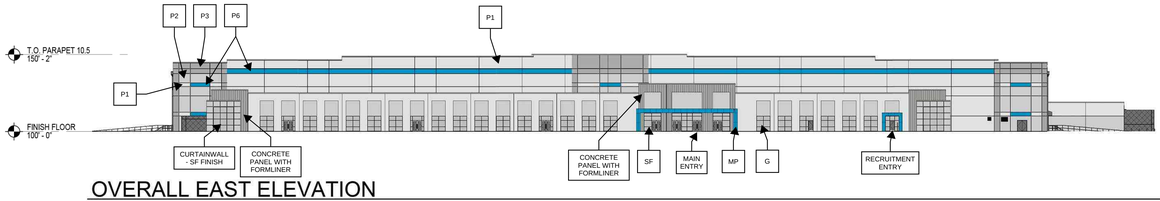
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OVERALL FIRST FLOOR PLAN

A1.1

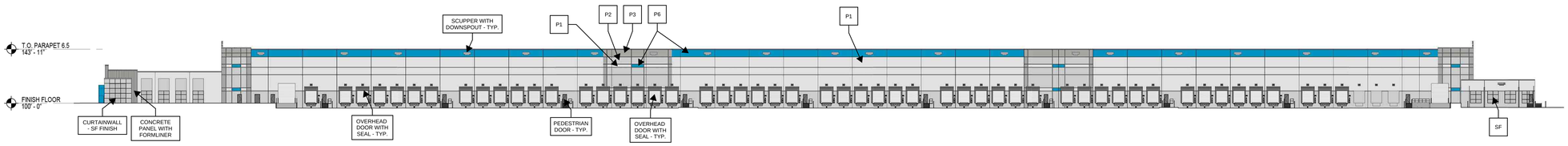
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REFER TO MATERIALS BOARD
FOR MATERIALS,
MANUFACTURERS & COLORS



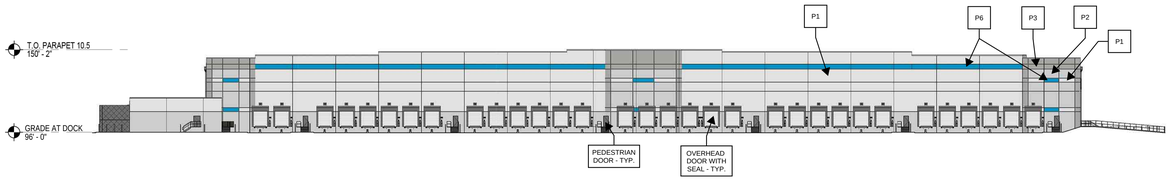
OVERALL EAST ELEVATION

SCALE: 1" = 40'-0"



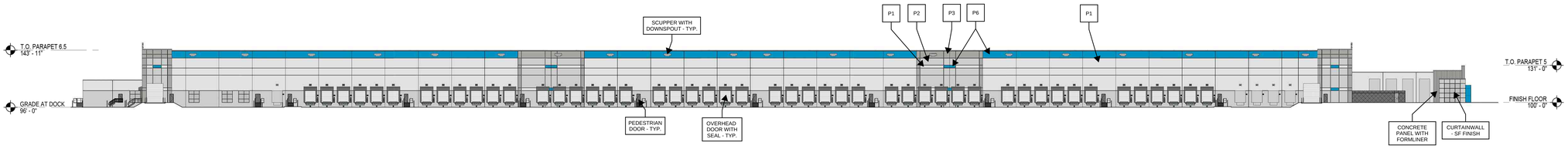
OVERALL NORTH ELEVATION

SCALE: 1" = 40'-0"



OVERALL WEST ELEVATION

SCALE: 1" = 40'-0"



OVERALL SOUTH ELEVATION

SCALE: 1" = 40'-0"

EXTERIOR ELEVATIONS
SCALE: 1" = 40'-0"

08-25-2021

PROJECT SUNRISE
RANCHO CORDOVA, CA

NOT FOR CONSTRUCTION

PANATTONI®

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PAINT

P1 SHERWIN WILLIAMS
SW #7646 ‘FIRST STAR’

P2 SHERWIN WILLIAMS
SW #7016 ‘MINDFUL GRAY’

P3 SHERWIN WILLIAMS
SW #7017 ‘DORIAN GRAY’

P6 SHERWIN WILLIAMS
SW PANTONE COLOR #2995C

GLAZING

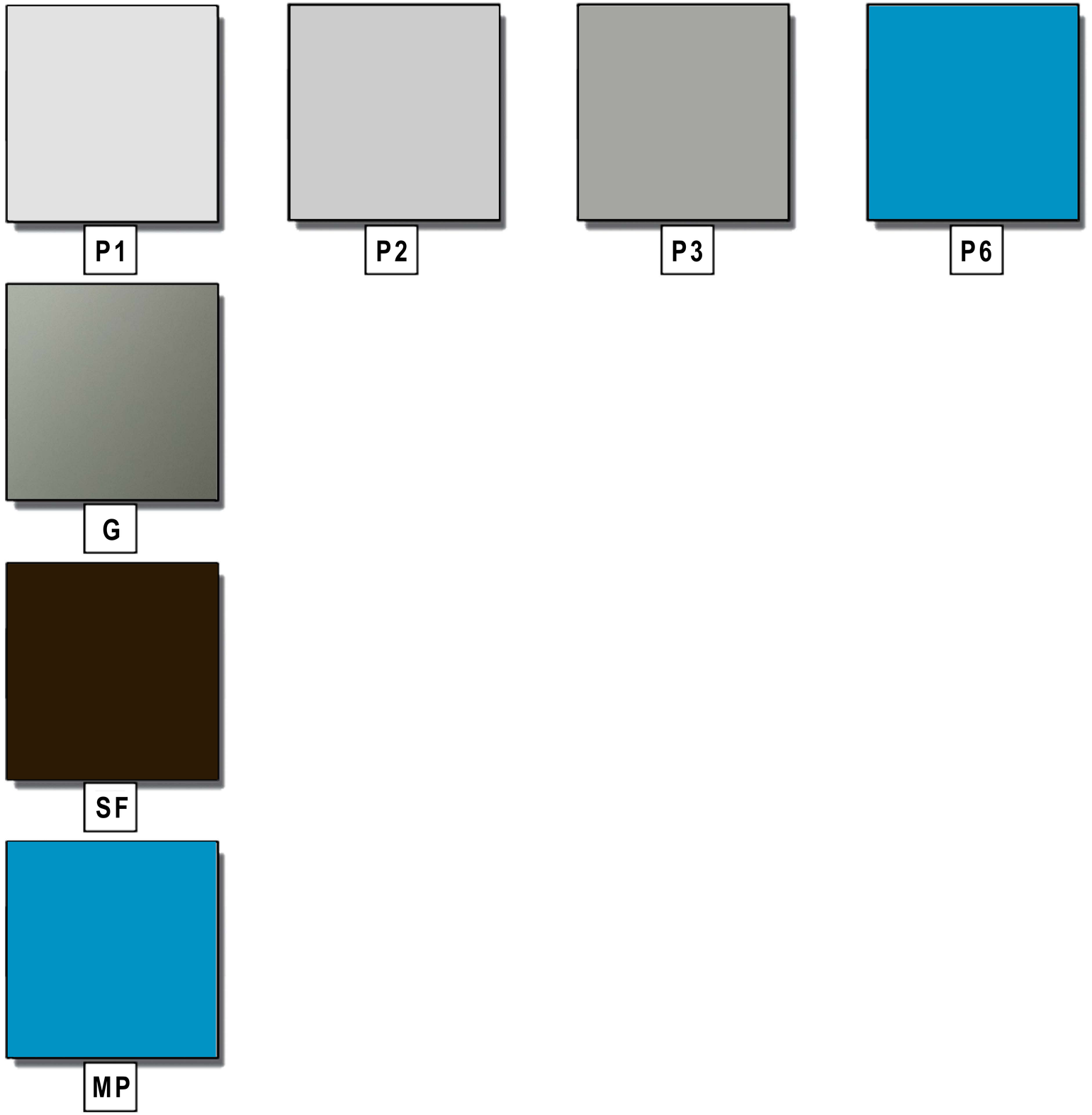
G SOLARBAN 60
SOLARGRAY

STOREFRONT

SF KAWNEER
ALUMINUM - DARK BRONZE

COMPOSITE METAL PANEL

MP ALPOLIC 4MM WET SYSTEM
COLOR TO MATCH P6



MATERIAL BOARD

08-25-2021

PROJECT SUNRISE
RANCHO CORDOVA, CA

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
General Conditions				
1.	The approved entitlement is for a Major Design Reivew for a +/- 629,186 sq. ft. single story warehouse distribution facility with 132 dock doors, (RDO Parcel 71, APN: 072-0370-106), as described in the City Council Staff Report dated March 21, 2022 and Project Plans (Exhibit A) with the conditions herein, for project number PLND-0821-0003.	On-Going	Planning	
2.	The term of the Major Design Review approval is the later of (i) the date of the Develoment Agreement (DA) expires or (ii) the date three years from the date of City Council approval of the Major Design Review (unless extended).	Three years, commencing with the date of approval or under the terms of the DA.	Planning	
3.	This project shall also comply with the Rio Del Oro Specific Plan standards, including the conditions of approval and all applicable reports from the Tier II approval DD8403 outlined in: • Resolution 106-2016 (Addendum references the MMRP), • Resolution 107-2006 (Affordable Housing and Financing Plans, Infrastructure Phasing, and Large Lot TSM) Ordinance 10-2016 (Development Agreements)	On-Going	Planning	
4.	The development approved by this action is subject to the Mitigation Monitoring and Reporting Program (MMRP) adopted by City Council per Resolution 106-2016 and shall comply with all applicable measures.	On-Going	Planning	
5.	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	On-Going	Planning	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	agrees to provide a defense for the City in any such action.			
6.	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.	On-Going	Planning/ Building /Public Works	
7.	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.	On-Going	Finance	
8.	Left turn access to/from the site and International Drive shall only be allowed until such time that International Drive connects to Sunrise Boulevard. When International Drive connects to Sunrise Boulevard, a median or other physical barrier will be constructed eliminating left turn access to/from International. Right turn access to/from International will be maintained.	Ongoing.	Public Works	
9.	Trucks and other non-passenger vehicles with destinations beginning, ending, or including this site shall not be permitted to drive on: • Luyung Drive north of Gold Dredge.	Ongoing.	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	Fitzgerald Road north of Gold Dredge.			
10.	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.	On-Going	Public Works	
11.	Noise sources associated with construction, repair, remodeling, demolition, paving and/or grading of any real property must adhere to the development standards outlined within the City's Noise Element and RCMC 6.68.	On-Going	Planning	
12.	Signage is not approved with this permit. All signage shall comply with the City of Rancho Cordova Zoning Code.	On-Going	Planning	
13.	Project shall comply with the Rio Del Ordo Air Quality Management Plan.	On-Going	Planning/SMAQMD	
14.	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.	On-Going	SMUD	
15.	The Applicant shall disclose existing or proposed 69 kV electrical facilities to future and/or potential owners.	On-Going	SMUD	
Prior to Approval of Improvement Plans				
16.	**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, 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	Prior to approval of improvement plans	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	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.*			
17.	**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.	Prior to approval of improvement plans	Public Works	
18.	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	Prior to approval of improvement plans	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	improvement plans submittal. This system shall be implemented by qualified professionals with training and proven experience in this field.			
19.	**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 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.	Prior to approval of improvement plans	Public Works	
20.	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.	Prior to approval of improvement plans	Public Works	
21.	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.	Prior to approval of improvement plans	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
22.	All storm drain facilities within private lots shall be privately maintained and shall be clearly labeled as "private" in the improvement plans.	Prior to approval of improvement plans	Public Works	
23.	All stormwater basins shall be designed with a natural aesthetic appearance that blends into the surrounding landscape and development..	Prior to approval of improvement plans	Public Works and Planning	
24.	Pay the drainage impact fees to the satisfaction of the City of Rancho Cordova's Public Works Department.	Prior to approval of improvement plans	Public Works	
25.	Number, size, and location of driveways are subject to approval by the Public Works Department	Prior to approval of improvement plans	Public Works	
26.	Applicant shall photo-document the condition of adjacent streets, sidewalks and infrastructure to the satisfaction of the Public Works Department.	Prior to approval of improvement plans	Public Works	
27.	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.	Prior to approval of improvement plans	Public Works	
28.	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 nd 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	Prior to approval of improvement plans	Public Works	
29.	All landscape strips, medians, etc that contain trees shall be designed to include continuous root barriers and appropriately sized for their proposed planters.	Prior to approval of improvement plans.	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	Tree species shall be pre-approved by the Public Works Department.			
30.	Protected trees shall be replaced or mitigated per Rancho Cordova Municipal Code 19.12.120. Tree replacement is one inch per one inch ratio. In-lieu payment is $165 per inch.	Prior to approval of improvement plans.	Public Works	
31.	All landscape corridor walls shall be designed of masonry construction using graffiti resistant materials. Wall design and materials shall be subject to City's approval.	Prior to approval of improvement plans	Public Works and Planning	
32.	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 to 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.	Prior to approval of improvement plans.	Sacramento Metro Fire District	
33.	Show the design for a minimum of 2 remote fire access roadways. Remote fire access roadways shall be spaced a distance apart that is no less than ½ the diagonal measurement of the overall project site.	Prior to approval of improvement plans.	Sacramento Metro Fire District	
34.	Show the design for aerial apparatus access. Aerial apparatus access shall conform to Sacramento Metro Fire Districts, Fire Prevention Standard #3.	Prior to approval of improvement plans.	Sacramento Metro Fire District	
35.	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.	Prior to approval of improvement plans.	Sacramento Metro Fire District	
36.	Show on the plan how Fire Lanes will be marked. Fire Lane identification shall be provided along the	Prior to approval of improvement plans.	Sacramento Metro Fire District	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	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.			
37.	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."	Prior to approval of improvement plans.	Sacramento Metro Fire District	
38.	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.	Prior to approval of improvement plans.	Sacramento Metro Fire District	
39.	The Applicant shall dedicate a 12.5-foot public utility easement for overhead and/or underground facilities and	Prior to approval of improvement plans.	SMUD	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	appurtenances adjacent to all public street rights-of ways			
40.	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.	Prior to approval of improvement plans.	SMUD	
41.	The Applicant shall dedicate and provide all-weather vehicular access for service vehicles that are up to 26,000 pounds. At a minimum: (a) the drivable surface shall be 20-feet wide; and (b) all SMUD underground equipment and appurtenances shall be within 15-feet from the drivable surface	Prior to approval of improvement plans.	SMUD	
42.	The Applicant shall dedicate a 20-foot easement for future 69 kV routes that will be required to connect the new substation into SMUD's Distribution System. Associated future overhead 69kV will be installed along both sides of International Drive, then continues west and crosses their property and then heads west along the proposed Gold Dredge Way. If a 12.5-foot Public Utility Easement (PUE) is also required along these streets, the 12.5-foot PUE will be located directly adjacent to the street right-of-way, with the 20-foot 69 kV easement directly adjacent to the PUE.	Prior to approval of improvement plans.	SMUD	
43.	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.	Prior to approval of improvement plans	SMUD	
44.	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	Prior to approval of improvement plans	SMUD	
45.	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-	Prior to approval of improvement plans	SMUD	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	Rebates/Design-and-Construction-Services			
46.				
47.	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. Field modifications to new or existing precast manhole bases are not allowed.	Prior to approval of improvement plans.	SASD	
48.	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.	Prior to approval of improvement plans.	SASD	
49.	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.	Prior to approval of improvement plans.	SASD	
50.	The project has an approved Level 3 sewer study. Any changes to the approved study may require an addendum.	Prior to approval of improvement plans.	SASD	
Prior to Issuance of Building Permit				
51.	Applicant shall complete improvement plans to the satisfaction of the Public Works Department. Improvement plans shall include, but shall not be limited to: • All frontage, utility and arterial road improvements necessary for access to the site including Rancho Cordova Parkway, International, and Gold Dredge and as identified on the phasing plan. • Pavement improvements including existing Gold Dredge Way, Luyung south of Gold Dredge, and	Prior to issuance of Building Permits	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	Mechanical west of Luyung as depicted in the phasing plan. • All onsite civil improvements. • Frontage improvements including sidewalk, driveways and landscaping shall conform with the Rio Del Oro Specific Plan. Sidewalks on Rancho Cordova Parkway and International shall be minimum 8-feet wide separated minimum 6-feet from the back of curb. Sidewalks on Road Gold Dredge shall be minimum 7-feet wide and may be attached or detached. • Driveways shall be designed and constructed per Sacramento County Standard Drawing 4-35, Type A driveway. • Civil plan shall include an ADA access plan • The drainage system shall be designed in accordance 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. • Utility laterals. • Provide street lighting as required by the City of Rancho Cordova Code. Street Lighting shall conform to all City improvement standards, and necessary easements shall be granted to accommodate those standards. • Other improvements per the approved phasing plan or as needed for adequate function and connection to the development. • All improvements to be designed and constructed to the satisfaction of the Public Works Department.			

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
52.	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.	Prior to issuance of Building Permits	Sacramento Metro Fire District	
53.	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 Recorders 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) Provisions for the necessary repair and maintenance of vehicle and pedestrian access gates and opening systems	Prior to issuance of Building Permits	Sacramento Metro Fire District	
54.	The applicant shall meet the following: Civil Site Plans and Architectural Plans shall be submitted and approvedprior to Final Building Permit being issued. Fire Sprinkler and Fire Alarm plans 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.	Prior to issuance of Building Permits	Sacramento Metro Fire District	
55.	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.	Prior to issuance of Building Permits	Sacramento Metro Fire District	
56.	Structural setbacks less than 14-feet shall require the	Prior to Issuance of	SMUD	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	Applicant to conduct a pre-engineering meeting with all utilities to ensure property clearances are maintained.	Building Permit		
57.	Prior to the issuance of any building permits for the project, the project developer/owner shall pay Zone 40 development fees applicable at the time of building permit issuance in accordance with Title 4 of the Sacramento County Water Agency (SCWA) Code.	Prior to Issuance of Building Permit	SCWA	
58.	Prior to the issuance of any building permits for the project, the project shall conform to the specific provisions of the City of Rancho Cordova Landscaping Ordinance (Municipal Code Title 23, Chapter 23.716).	Prior to Issuance of Building Permit	SCWA	
59.	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	Prior to Issuance of Building Permit	SASD	
Prior to Final Inspection				
60.	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 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.	Prior to final building inspection of the first unit	Public Works	
61.	Upon completion of the installation of the landscaping, the designer shall certify that the landscape complies	Prior to final Building Inspection	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
	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. 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.			
62.	Install public and onsite improvements per the approved Public Works plans and to the satisfaction of the Public Works Department.	Prior to final building inspection of the first unit	Public Works	
63.	As-built reproducible 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, or equivalent to the satisfaction of the City Engineer shall be submitted and approved by the Public Works Department.	Prior to final building inspection	Public Works	
64.	In addition to the conditions of approval, the mitigation monitoring and reporting program must be completed in accordance with their implementation timing prior to final inspection. This is to satisfy the requirements of the project's CEQA review.	Prior to Final Inspection/ Certificate of Occupancy	Planning	
65.	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.	Prior to Final Inspection/ Certificate of Occupancy	Sacramento Metro Fire District	

ADVISORY

Planning
Graffiti resistant paint shall be provided on all exterior surfaces, to allow for efficient cleaning of any graffiti on the structure.

Sacramento County Water Agency

- Water supply will be provided by the Sacramento County Water Agency.
- Provide public water service to each building.
- All water lines shall be located within a public right-of-way or within easements dedicated to SCWA. Easements shall be reviewed and approved by Sacramento County Water Agency prior to Improvement Plan approval or Final Map approval.
- Destroy all abandoned wells on the proposed project site in accordance with the requirements of the Sacramento County Environmental Health Division. Clearly show all abandoned/destroyed wells on the improvement plans for the project. Prior to abandoning any existing agricultural wells, applicant shall use water from agricultural wells for grading and construction.
- No water supply mains shall be located under structures such as box culverts and bridges. If the project will build box culverts and bridges to the ultimate width, water mains shall cross above ground attached to the side of the structure. Structures shall be designed accordingly. If the ultimate width is not being built, water mains shall cross underground routed outside of and around the ultimate structure footprint. 15-foot wide water main easements shall be dedicated for the portion outside of ROW. The crossing shall be be approved by the Agency Engineer. Underground crossings and attachments to structures shall be included in the environmental impact analysis. Additional environmental permitting and other associated costs will be at applicant's expense.

SASD

- ONGOING: SASD Design Standards and Specifications require minimum 6-inch lower laterals for commercial and industrial buildings.
- ONGOING: Construction of a grease trap or a sand oil separator may be required. The applicant must verify with the applicable jurisdiction's building department.
- ONGOING: SASD prohibits gates that prevent access within sewer easements unless the District standards for accessibility through gates are met.

MITIGATION MONITORING AND REPORTING PROGRAM

RIO DEL ORO SPECIFIC PLAN PROJECT

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.4 DRAINAGE, HYDROLOGY, AND WATER QUALITY		
3.4-1: Prepare and Submit Final Drainage Plans and Implement Requirements. Before the approval of grading plans and building permits, the project applicant(s) for all project phases shall submit final drainage plans to the City demonstrating that off-site upstream runoff would be appropriately conveyed through the project site, and that project-related on-site runoff would be appropriately contained in detention basins to reduce flooding impacts. Furthermore, the project applicant(s) for all project phases may be required to participate in drainage improvements along Sunrise Boulevard; this will be determined through continuing consultation with the Sacramento County Department of Water Resources.	Before approval of grading plans and building permits for all project phases.	City of Rancho Cordova Public Works Department.
3.4-3: Implement Measures or Best Management Practices to Reduce Water Quality Effects of Temporary Construction Activities. Before the approval of grading permits and improvement plans project applicant(s) for all project phases shall consult with the City, the SWRCB, and the Central Valley RWQCB to acquire the appropriate regulatory approvals that may be necessary to obtain Section 401 water quality certification, an SWRCB statewide NPDES stormwater permit for general construction activity, and any other necessary site-specific WDRs or waivers under the Porter-Cologne Act. The project applicant(s) shall prepare and submit the appropriate NOIs and prepare the SWPPP and any other necessary engineering plans and specifications for pollution prevention and control. The SWPPP and other appropriate plans shall identify and specify: ► the use of erosion and sediment–control BMPs, including construction techniques that will reduce the potential for runoff and other measures to be implemented during construction; ► the means of waste disposal; ► the implementation of approved local plans, nonstormwater-management controls, permanent postconstruction BMPs, and inspection and maintenance responsibilities; ► the pollutants that are likely to be used during construction that could be present in stormwater drainage and nonstormwater discharges, and other types of materials used for equipment operation; ► spill prevention and contingency measures, including measures to prevent or clean up spills of hazardous waste and of hazardous materials used for equipment operation, and emergency procedures for responding to spills; ► personnel training requirements and procedures that will be used to ensure that workers are	Before approval of grading permits and improvement plans and throughout all site work and construction for all project phases.	City of Rancho Cordova Public Works Department, SWRCB, and Central Valley RWQCB.

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative.

Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
aware of permit requirements and proper installation methods for BMPs specified in the SWPPP; and ► the appropriate personnel responsible for supervisory duties related to implementation of the SWPPP. Where applicable BMPs identified in the SWPPP shall be in place throughout all site work and construction and shall be used in all subsequent site development activities. BMPs may include such measures as the following: ► Implementing temporary erosion-control measures in disturbed areas to minimize discharge of sediment into nearby drainage conveyances. These measures may include silt fences, staked straw bales or wattles, sediment/silt basins and traps, geofabric, sandbag dikes, and temporary vegetation. ► Establishing permanent vegetative cover to reduce erosion in areas disturbed by construction by slowing runoff velocities, trapping sediment, and enhancing filtration and transpiration. ► Using drainage swales, ditches, and earth dikes to control erosion and runoff by conveying surface runoff down sloping land, intercepting and diverting runoff to a watercourse or channel, preventing sheet flow over sloped surfaces, preventing runoff accumulation at the base of a grade, and avoiding flood damage along roadways and facility infrastructure. All construction contractors shall retain a copy of the approved SWPPP on the construction site.		
3.5 UTILITIES AND SERVICE SYSTEMS		
3.5-2 (2008 RDEIR/SDEIS): Submit Proof of Water Supply Availability. The following shall be required for all legislative-level development projects, including community plans, general plan amendments, specific plans, rezonings, and other plan-level discretionary entitlements, but excluding tentative subdivision maps, parcel maps, use permits, and other project-specific discretionary land-use entitlements or approvals: ► Proposed water supplies and delivery systems shall be identified at the time of development	Before the approval of project-specific discretionary land-use entitlements and approvals (subsequent to the approval of the specific plan), including all final small-lot maps; or for nonresidential	City of Rancho Cordova Planning Department.

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative.

Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
project approval to the satisfaction of the City. The water agency or company proposing to provide service (collectively referred to as "water provider") to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project. The project applicant or water provider shall make a factual showing prior to project approval that the water provider or providers proposing to serve the development project has or have legal entitlements to the identified water supplies or that such entitlements are reasonably foreseeable by the time of subsequent, project-specific discretionary land-use entitlements or approvals. This factual showing shall also demonstrate that the water provider's identified water supply is reasonably reliable over the long term (at least 20 years) under normal, single-dry and multiple-dry years. The following shall be required for project-specific discretionary land-use entitlements and approvals including, but not limited to, all tentative subdivision maps, parcel maps, or use permits: ► An assured water supply and delivery system shall be available or reasonably foreseeable at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project. ► The project applicant, water agency (or agencies), or water company (or companies) providing water service to the project site shall make a factual showing consistent with, or the City shall impose conditions similar to, those required by Government Code Section 66473.7 in order to ensure an adequate water supply for development authorized by the project. Prior to recordation of any final subdivision map, or prior to City approval of any similar project-specific discretionary land use approval or entitlement required for nonresidential uses, the project applicant or water provider shall demonstrate the availability of a long-term, reliable water supply for the amount of development that would be authorized by the final subdivision map or project-specific discretionary nonresidential approval or entitlement. This assurance of water supply shall identify that the water provider has legal entitlement to the water source and that the water source is reasonably reliable (at least 20 years) under normal, dry, and multiple dry years. Such demonstration shall consist of a written certification from the water provider that either existing sources are available or that needed improvements will be in place prior to occupancy.	projects, before issuance of use permits, building permits, or other entitlements.	
3.5-3 (2008 RDEIR/SDEIS): Submit Proof of an Off-Site and On-Site Infrastructure Delivery System or Assure that Adequate Financing is Secured.	Before the approval of project-specific, discretionary land-use	City of Rancho Cordova Planning Department.

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative.

Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
The following shall be required for all legislative-level development projects, including community plans, general plan amendments, specific plans, rezonings, and other plan-level discretionary entitlements, but excluding tentative subdivisions maps, parcel maps, use permits, and other project-specific discretionary land-use entitlements or approvals: ► All required water treatment and delivery infrastructure for the project shall be in place at the time of subsequent, project-specific discretionary land-use entitlements or approvals, or shall be assured prior to occupancy through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects. The following shall be required for project-specific discretionary land-use entitlements and approvals including, but not limited to, all tentative subdivision maps, parcel maps, or use permits: ► Off-site and on-site water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the issuance of building permits or their financing shall be assured to the satisfaction of the City prior to the approval of the Final Map, consistent with the requirements of the Subdivision Map Act, or prior to the issuance of a similar, project-level entitlement for nonresidential land uses. ► Off-site and on-site water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.	entitlements and approvals (subsequent to the approval of the specific plan), including all final small-lot maps, or for nonresidential projects, before the issuance of use permits, building permits, or other entitlements.	
3.5-4 (2008 RDEIR/SDEIS): Implement the same mitigation measures called for in the 2006 DEIR/DEIS and in the Recirculated DEIR/Supplemental DEIS, as specifically set forth in Table ES-1.	Implement the same mitigation measures called for in the 2006 DEIR/DEIS and in the Recirculated DEIR/Supplemental DEIS, as specifically set forth in Table ES-1, and modified by the MMRP and Findings of Fact.	City of Rancho Cordova Building Department
3.5-4 (2006 DEIR/DEIS): Submit Proof of Adequate Wastewater and Implement On- and Off-Site Infrastructure Service or Assure that Adequate Financing is Secured. Before the	Before approval of small-lot final maps and building	City of Rancho Cordova Building Department

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative.

Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
approval of building permits for all project phases, the project applicant(s) shall submit proof to the City that an adequate wastewater conveyance system either has been constructed or is assured through the use of bonds or other sureties to the City's satisfaction. Both on- and off-site wastewater conveyance infrastructure sufficient to provide adequate service to Rio del Oro subdivisions shall be in place before the approval of the final map, or their financing shall be assured to the satisfaction of the City.	permits for all project phases.	
3.5-6: Demonstrate Adequate Wastewater Treatment Capacity. The project applicant(s) for all project phases shall demonstrate adequate capacity at the SRWTP for new wastewater flows generated by the project. This shall involve preparing a tentative map–level study and paying connection and capacity fees as identified by SRCSD and CSD-1. Approval of the final project map shall not be granted until the City verifies adequate SRWTP capacity.	Before approval of building permits for all project phases.	City of Rancho Cordova Building and Safety, and Public Works Departments.
3.6 PUBLIC SERVICES		
3.6-1: Prepare and Implement Traffic Control Plans. The project applicant(s) and/or project contractor(s) for all project phases shall prepare and implement traffic control plans for construction activities that may affect road rights-of-way. The traffic control plans must follow standards of the agency responsible for the affected roadway and must be signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, a flagperson to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles. During project construction, access to existing land uses shall be maintained at all times, with detours used as necessary during road closures. Traffic control plans shall be submitted to the City Public Works Department for review and approval before the approval of all project plans or permits for all project phases where implementation may cause impacts on traffic.	Before approval of grading, improvement, or construction plans and permits and during construction for all project phases.	City of Rancho Cordova Public Works Department.
3.6-2: Incorporate California Fire Code and SMFD Fire Prevention Standards into Project Design and Submit Project Design to SMFD for Review and Approval. The project applicant(s) for all project phases shall incorporate into their project designs fire flow requirements based on the California Fire Code, SMFD Fire Prevention Standard 441.1051, and other applicable requirements based on SMFD fire prevention standards. Approved plans showing access design shall be provided to SMFD as described by Fire Prevention Standard 444.302 (“Fire Apparatus Access Roads”). These plans shall describe access-road length, dimensions, and finished surfaces for firefighting equipment.	Before approval of improvement plans and issuance of occupancy permits or final inspections for all project phases.	Sacramento Metropolitan Fire District and City of Rancho Cordova Building and Safety Department.

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Improvement plans showing hydrant locations shall be submitted to the SMFD Fire Prevention Bureau for review and approval. Fire hydrant details and SMFD notes shall be shown on the plans or improvement drawings as detailed in Fire Prevention Standard 441.1051. A letter from the Sacramento County Water Agency shall be obtained verifying that adequate water is available for fire flow. In addition, as required by the City General Plan, new commercial and industrial development, as well as multi-family residential development with five or more units must incorporate on-site fire suppression systems into project designs. If security gates are installed at the project site, the project applicant(s) shall obtain a copy of the County Fire Code, Amendment VII, "Emergency Access Gates and Barriers." The design of the entry shall conform to this standard. The City shall not authorize the occupancy of any structures until the project applicant(s) has obtained a Certificate of Release (Standard 441.105, "Certificate of Release—Residential") from SMFD verifying that all fire prevention items have been addressed on-site to the satisfaction of SMFD.		
3.7 GEOLOGY, SOILS, AND MINERAL RESOURCES		
3.7-1: Prepare and Implement a Grading and Erosion Control Plan. A grading and erosion control plan shall be prepared by a California Registered Civil Engineer retained by the project applicant(s) for all project phases. The grading and erosion control plan shall be submitted to the City Department of Public Works before the issuance of grading permits for all new development within the project site. The plan shall be consistent with the City's Land Grading and Erosion Control Ordinance as well as the City's National Pollutant Discharge Elimination System (NPDES) permit and shall include the site-specific grading associated with development for all project phases. The plan shall include the location, implementation schedule, and maintenance schedule of all erosion and sediment control measures, a description of measures designed to control dust and stabilize the construction-site road and entrance, and a description of the location and methods of storage and disposal of construction materials. Erosion and sediment control measures could include the use of detention basins, berms, swales, wattles, and silt fencing. Stabilization of construction entrances to minimize trackout (control dust) is commonly achieved by installing filter fabric and crushed rock to a depth of approximately 1 foot. The project applicant(s) shall ensure that the construction contractor is responsible for securing a source of	Before the issuance of grading permits for all project phases, and throughout project construction.	City of Rancho Cordova Public Works, Building and Safety, and Planning Departments.

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transportation and deposition of excavated materials. Implementation of Mitigation Measure 3.4-3 (discussed in Section 3.4, "Drainage, Hydrology, and Water Quality") will help reduce erosion-related impacts.		
3.7-3a: Prepare a Geotechnical Study and Implement All Applicable Recommendations. Before the approval of grading plans for all project phases, a final geotechnical subsurface investigation report shall be prepared by the project applicant(s) for the proposed development and shall be submitted to the City. The final geotechnical engineering report shall address and make recommendations on the following: ► site preparation; ► appropriate sources and types of fill; ► potential need for soil amendments; ► road, pavement, and parking areas; ► structural foundations, including retaining wall design; ► grading practices; ► erosion/winterization; ► special problems discovered on-site (e.g., groundwater and expansive/unstable soils); and ► slope stability. The geotechnical investigation shall include subsurface testing of soil and groundwater conditions and determine appropriate foundation designs that are consistent with the CBC. If the soils report indicates the presence of critically expansive soils or other soil problems that would lead to structural defect if not corrected, additional investigations may be required for subdivisions before building permits are issued. This shall be so noted on the project grading plans. Recommendations contained in the geotechnical engineering report shall be noted on the grading plans and implemented as appropriate before the issuance of building permits. Design and construction of all new development in all phases of the proposed project shall be in accordance with the CBC and the County Land Grading and Erosion Control Ordinance. It is the responsibility of the project applicant(s) to provide for engineering inspection and certification that earthwork has been performed in conformity with recommendations contained in the report.	Before approval of grading plans for all project phases.	City of Rancho Cordova Public Works Department.
3.7-3b: Ensure On-Site Monitoring by a Geotechnical Engineer. All earthwork shall be monitored by a geotechnical engineer retained by the project applicant(s) for all project phases. The geotechnical engineer shall provide oversight during all excavation, placement of fill, and disposal of materials removed from and deposited on the subject site and other sites. Before	Before issuance of grading permit and during construction activities for all	City of Rancho Cordova Public Works Department.

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export/import of any soil to/from an off-site location, the project applicant(s) shall obtain a grading permit from the City Department of Public Works.	project phases.	
3.9 CULTURAL RESOURCES		
3.9-2: Record Eligible Historic Resources to Historic American Building Survey Standards and on Appropriate State Forms. If the Solid Propellant Assembly Area and the Sigma Test Area structures and their earthen berms must be demolished for project implementation, built elements of the eligible districts shall be documented by the project applicant(s) according to Historic American Building Survey (HABS) standards and recorded as cultural resources on California Department of Parks and Recreation (State Parks) Series 523 Primary and Archaeological Site records, and other appropriate forms from State Parks. The project applicant(s) shall have this documentation completed before approval of demolition permits for any of the historic structures or features.	Before approval of demolition permits for the historic structures.	City of Rancho Cordova Planning Department.
3.9-3: Provide Preconstruction Worker Education and Stop Potentially Damaging Work if Human Remains are Uncovered during Construction. Before initiation of construction or ground-disturbing activities associated with the project, the project applicant(s) for all project phases shall require all construction personnel to be alerted to the possibility of buried cultural resources. The general contractor and its supervisory staff shall be responsible for monitoring the construction project for disturbance of cultural resources. Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any development activities, work shall be suspended and the City shall be notified immediately. The project applicant(s) shall retain a City-approved qualified archaeologist who shall conduct a field investigation of the specific site and recommend mitigation deemed necessary for the protection or recovery of any cultural resource concluded by the archaeologist to represent historical resources or unique archaeological resources. The City shall be responsible for approval of recommended mitigation if it is determined by the City to be feasible in light of approved land uses. The project applicant(s) shall implement the approved mitigation before the resumption of construction activities at the construction site. In accordance with the California Health and Safety Code, if human remains are uncovered during construction at the project site, work within 50 feet of the remains shall be suspended immediately, and the City and the County Coroner shall be notified immediately. If the remains are determined by the County Coroner to be Native American, the NAHC shall be notified within 24 hours of that determination (Health and Safety Code Section 7050[c]), and the guidelines of the NAHC shall be	Before approval of grading plans and during all ground-disturbing activities for all project phases.	City of Rancho Cordova Planning Department.

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adhered to in the treatment and disposition of the remains. The NAHC will then assign a Most Likely Descendant (MLD) to serve as the main point of Native American contact and consultation. Following the coroner's findings, the MLD and the archaeologist shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The project applicant(s) shall be required to implement any feasible, timely-formulated mitigation deemed necessary for the protection of the burial remains. Construction work in the vicinity of the burials shall not resume until the mitigation is completed. This measure shall be included in all grading and improvement plans for all project phases.		

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3.9-6: Monitor Construction in Culturally Sensitive Areas and Stop Potentially Damaging Work if Archaeological Sites or Human Remains are Uncovered during Construction. Because areas of increased cultural sensitivity have been identified as a result of Native American contacts, the project applicant(s) of Phase 1 shall retain a City-approved qualified professional archaeologist to provide on-site monitoring during construction activities in these sensitive areas, as depicted in Exhibit 3.9-1. If the archaeologist notes unusual amounts of bone, stone, shell, burned soils, or other possible indications of buried archaeological resources, construction in the vicinity shall be halted until the find can be assessed. The archaeologist shall conduct a field investigation of the specific site and shall recommend mitigation deemed necessary for the protection or recovery of any cultural resource concluded by the archaeologist to represent historical resources or unique archaeological resources. The City shall be responsible for approval of recommended mitigation if it is determined by the City to be feasible in light of approved land uses. The project applicant(s) shall implement the approved mitigation before the resumption of construction activities at the construction site. In accordance with the California Health and Safety Code, if human remains are uncovered during construction at the project site, work within 50 feet of the remains shall be suspended immediately, and the City and the County Coroner shall be notified immediately. If the remains are determined by the County Coroner to be Native American, the NAHC shall be notified within 24 hours of that determination (Health and Safety Code Section 7050[c]), and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The NAHC will then assign an MLD to serve as the main point of Native American contact and consultation. Following the coroner's findings, the MLD and the archaeologist shall determine the ultimate treatment and disposition of the remains and shall take appropriate steps to ensure that additional human interments are not disturbed. The project applicant(s) of Phase 1 shall be required to implement any feasible, timely-formulated mitigation deemed necessary for the protection of the burial remains. Construction work in the vicinity of the burials shall not resume until the mitigation is completed. Implementation of Mitigation Measure 3.9-3 discussed above will help reduce potential impacts to cultural resources.	Before approval of grading and improvement plans and during all ground-disturbing activities in the sensitive areas of development Phase 1.	City of Rancho Cordova Planning Department.
3.10 BIOLOGICAL RESOURCES		
3.10-1a: Secure Clean Water Act Section 404 Permit and Implement All Permit Conditions, and Ensure No Net Loss of Wetlands, Other Waters of the United States, and Associated Functions and Values. Before the approval of grading and improvement plans and before any	Before the approval of grading or improvement plans or any ground-	U.S. Army Corps of Engineers, Sacramento District; Central Valley

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groundbreaking activity associated with each distinct project phase, the project applicant(s) for each project phase requiring the fill of wetlands or other waters of the United States or waters of the state shall obtain all necessary permits under Sections 401 and 404 of the CWA or the State's Porter-Cologne Act for the respective phase. The project applicant(s) shall commit to replace, restore, or enhance on a "no net loss" basis (in accordance with USACE, the Central Valley RWQCB, and the Natural Resources Element of the City General Plan) the acreage of all wetlands and other waters of the United States subject to USACE jurisdiction and waters of the state subject to RWQCB jurisdiction and the City General Plan that would be removed, lost, and/or degraded with implementation of project plans for that phase. Wetland habitat shall be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to USACE, the Central Valley RWQCB, and the City, as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes. To accomplish this mitigation, the project applicant(s) shall take the following steps: ► As part of the Section 404 permitting process, a draft wetland MMP has been developed for the project (Appendix Q) by ECORP Consulting on behalf of the project applicant(s) (ECORP 2009). Before any ground-disturbing activities that would adversely affect wetlands and before engaging in mitigation activities associated with each phase of development, the project applicant(s) shall submit the draft wetland MMP to USACE, the Central Valley RWQCB, and the City for review and approval of those portions of the plan over which they have jurisdiction. Once the MMP is approved and implemented, mitigation monitoring will continue for a minimum of 10 years from completion of mitigation, or human intervention (including recontouring and grading), or until the performance standards identified in the approved MMP have been met, whichever is longer. Monitoring reports shall include baseline CRAM scores and the CRAM scores from all previous years shall be plotted to show the "restoration trajectory." The plan shall be prepared to the satisfaction of the City, in accordance with the City's Grading and Erosion Control Ordinance, as well as to the satisfaction of those agencies with jurisdiction over all or portions of the plan. ► In conjunction with preparation and implementation of an approved wetland MMP, the project applicant(s) shall prepare and submit plans for the creation of jurisdictional waters of the United States, including wetlands, at an adequate mitigation ratio to offset the aquatic functions and values that would be lost at the project site, account for the temporal loss of habitat, and contain an adequate margin of safety to reflect anticipated success. The MMPs must demonstrate how the aquatic functions and values that would be lost through project implementation will be replaced. The habitat MMP for jurisdictional wetland features will	disturbing activities for any project development phase containing wetland features. The MMP must be approved before any impact on wetlands can occur. Mitigation shall be implemented on an ongoing basis throughout and after construction, as required.	Regional Water Quality Control Board; and City of Rancho Cordova Planning Department, as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes and in compliance with the City's Grading and Erosion Control Ordinance.

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need to be consistent with USACE's December 30, 2004, *Habitat Mitigation and Monitoring Proposal Guidelines*. The wetland MMP shall also mitigate impacts on vernal pool and seasonal wetland habitat, and shall describe specific method(s) to be implemented to avoid and/or mitigate any off-site project-related impacts. The wetland creation section of the habitat MMP shall include the following: • target areas for creation; • a complete biological assessment of the existing resources in the target areas, including a CRAM analysis conducted during the wet season to establish baseline conditions; • specific creation and restoration plans for each target area; • performance standards for success that will illustrate that the compensation ratios are met; and • a monitoring plan, including schedule and annual report. As requested by EPA, the monitoring plan shall incorporate CRAM analysis and the following elements: — intensive monitoring of hydrology early on (this can be phased out as created wetlands are achieving target standards); — CRAM analysis conducted annually for 5 years after any construction adjacent to assessment areas to determine whether these areas are retaining functions and values; — analysis of CRAM data, including assessment of potential stressors, to determine whether any remedial activities may be necessary; — corrective measures if performance standards are not met; — monitoring of vegetation communities and targeted special-status species as success criteria for hydrologic function have become established and the creation site "matures" over time; — reference locations for comparison to compensatory vernal pools to document success; — adaptive management measures to be applied if performance standards are not being met;		

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— responsible parties for monitoring and preparing reports; and — responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions. • An operations and management plan for the Preserve shall be prepared and submitted to USACE and USFWS for review and approval. The plan shall include detailed information on the habitats present within the target area, the long-term management and monitoring of these habitats, legal protection for the target area (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment). ► For each phase of development, including off-site project-related impacts, the project applicant(s) shall secure the permits and regulatory approvals described below and shall implement all permit conditions. For each respective phase, all permits, regulatory approvals, and permit conditions for effects on wetland habitats shall be secured before implementation of any grading activities within 250 feet of waters of the United States or wetland habitats, including waters of the state, that potentially support federally listed species. The setback may be reduced to a distance approved by the City and USFWS if a wetland avoidance plan is developed and implemented by a qualified biologist. The wetland avoidance plan must be approved by USFWS and the City and shall demonstrate that all direct and indirect impacts on wetlands will be avoided. Project phases in upland areas with no wetlands or waters of the United States within 250 feet, and no overland hydrologic flow patterns, the disturbance of which may affect such waters, may begin construction before these particular permits are obtained. Buffers around wetlands that do not support federally listed species shall be a minimum of 50 feet from the edge of these features in accordance with conditions of the National Pollutant Discharge Elimination System (NPDES) permit and associated best management practices (BMPs). See Section 3.4, "Drainage, Hydrology, and Water Quality," of the 2006 DEIR/DEIS for a further discussion of the NPDES. • Authorization to place dredged or fill material into waters of the United States shall be secured from USACE through the CWA Section 404 permitting process before any fill is placed in jurisdictional wetlands or other waters of the United States. USACE has determined that the project will require an individual permit. In its final stage and once approved by USACE, the proposed MMP for the project is expected to detail proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of aquatic functions and values in the project vicinity. Approval and implementation		

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of the wetland MMP shall fully mitigate all impacts on jurisdictional waters of the United States, including jurisdictional wetlands. In addition to USACE approval, approval by the City and the Central Valley RWQCB, as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes, will also be required. To satisfy the requirements of the City and the Central Valley RWQCB, mitigation of impacts on nonjurisdictional wetlands and waters of the state beyond the jurisdiction of USACE shall be included in the same mitigation and monitoring plan. Wetland mitigation must be approved before any impacts on waters of the United States or waters of the state commence. • Water quality certification pursuant to Section 401 of the CWA will be required before issuance of a Section 404 permit. Before construction in any areas containing wetland features, the project applicant(s) shall obtain water quality certification for the applicable phase of the project. Any measures required as part of the issuance of water quality certification shall be implemented. If Section 401 and 404 permit requirements ensure no net loss of all wetland features, including vernal pools, and these requirements are addressed before any ground-disturbing activities, no additional mitigation will be required by the City. Written approval from the City indicating that these requirements fulfill all no-net-loss obligations must be obtained before the approval of grading or improvement plans or any ground-disturbing activities in any project phase containing wetland features.		
3.10-1b: Include in Drainage Plans All Wetlands that Remain On-Site. A model-based watershed analysis was conducted by ECORP Consulting (Appendix Q) to determine hydrologic effects on wetlands within the 507-acre preserve. The long-term viability of the preserve was analyzed using all of the following factors: ► the size of the preserve, ► the amount of watershed area required to support the wetlands within the preserve, ► the potential impacts from the construction of Rancho Cordova Parkway and Americanos Boulevard, ► the construction of the mitigation wetlands within the preserve, and	Before approval of improvement and drainage plans, and on an ongoing basis throughout and after project construction, as required for all project phases.	U.S. Army Corps of Engineers, Sacramento District; and City of Rancho Cordova Public Works and Planning Departments.

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► the watershed area needed to support the hydrologic function of each mitigation wetland. The proposed construction design includes measures to reduce interference with the hydrology that sustains vernal pools on-site, including the use of con-span bridge systems (Exhibits 2-7 and 2-8 in the 2006 DEIR/DEIS) as natural substrate span crossings over Morrison Creek. Rancho Cordova Parkway and Americanos Boulevard would cross Morrison Creek with a clear span of the delineated wetlands within the channel bank, so no construction would occur within the channel and no fill or modification of the channel would be required. GIS analysis of a LiDAR-derived topographic model (Appendix Q) and wetland delineation data were used to determine the watershed-to-wetland ratio (WWR) for the wetlands within the preserve. It was found that the proposed configuration of the preserve conserves almost 100% of the original watershed area and would not negatively affect the hydrologic function of the vernal pools. GIS analysis calculated the mean watershed ratio of existing vernal pools in the preserve at 7.14:1. This WWR would be maintained for all existing vernal pools, except that the WWR of one small pool (0.053 acre) would be reduced to 6.62:1. The adverse effect on this vernal pool should not be considered significant because pools of this size class require a WWR of only 3.26:1 to maintain functionality. To minimize indirect effects on water quality and wetland hydrology, the project applicant(s) of each project phase shall include drainage plans in their improvement plans and shall submit the drainage plans to the City Public Works Department for review and approval. Before approval of these improvement plans, the project applicant(s) for all project phases shall commit to implement all measures in their drainage plans to avoid and minimize erosion and runoff into Morrison Creek and all wetlands that would remain on-site. Appropriate runoff controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation and the potential discharge of pollutants. For runoff during construction, see Section 3.4, “Drainage, Hydrology, and Water Quality,” of the 2006 DEIR/DEIS for a further discussion of the NPDES (Stormwater Pollution Prevention Plan). The project shall result in no net change to peak flows into Morrison Creek and associated tributaries off-site or within the preserve. The project applicant(s) shall establish a baseline of conditions for drainage on-site. The baseline-flow conditions shall be established for 2-, 5-, 10-, and 20-year storm events. These baseline conditions shall be used to develop monitoring standards for the stormwater system on the project site. The baseline conditions, monitoring standards, and a monitoring program shall be submitted to USACE and the City for their approval. The engineered channel and detention basins shall be designed and constructed to ensure that the performance		

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standards, which are described in Section 3.4, "Drainage, Hydrology, and Water Quality," of the 2006 DEIR/DEIS are met. The discharge site into Morrison Creek and associated tributaries shall be monitored to ensure that preproject conditions are being met. Stormwater runoff from Rancho Cordova Parkway would be discharged out of the wetland preserve to the north and south, and runoff from the central portion of the road would drain into a water quality treatment swale before being discharged into the wetland preserve (Exhibit 3.10-4). Runoff from Americanos Boulevard would be directed into a water quality treatment basin before being discharged into Morrison Creek (Exhibit 3.10-5). The water quality swale and treatment basins would be designed according to the *Stormwater and Water Quality Design Manual for the Sacramento and South Placer Regions* (Sacramento Stormwater Quality Partnership 2007) and shall meet the performance standards described in Section 3.4, "Drainage, Hydrology, and Water Quality," of the 2006 DEIR/DEIS. Corrective measures shall be implemented as necessary. The mitigation measures will be satisfied when the monitoring standards are met for 5 consecutive years without undertaking corrective measures to meet the performance standard.		
3.10-2a: Secure and Implement Section 1602 Streambed Alteration Agreement. A Section 1602 streambed alteration agreement from DFG will be required for construction affecting the bed and bank of Morrison Creek. As a condition of issuance of the streambed alteration agreement, the project applicant(s) for all project phases shall prepare a habitat MMP. The draft wetland MMP shall address impacts on the stream channel of Morrison Creek and shall include mitigation of impacts on riparian habitats to the satisfaction of DFG, subject to limitations on its authority set forth in Fish and Game Code Section 1600 et seq. The MMP shall include performance standards and success criteria to ensure that mitigation habitat would be successfully maintained. Any conditions of issuance of the streambed alteration agreement shall be implemented as part of project construction activities that adversely affect the bed and bank and current and historic riparian habitat associated with Morrison Creek that is within the area subject to DFG jurisdiction. The agreement shall be executed by the project applicant(s) and DFG before the approval of any grading or improvement plans or any construction activities in any project phase that could potentially affect the bed and bank of Morrison Creek and its associated current and historic riparian habitat.	Before the approval of grading or improvement plans or any construction activities (including clearing and grubbing) that affect the bed and bank or current and historic riparian habitat associated with Morrison Creek.	California Department of Fish and Game.
3.10-2b: Preserve, Restore, or Create Riparian Habitat at Satisfactory Ratio to Fulfill Local Planning Framework Requirements. Goal NR.1, Policy NR 1.9 of the City General Plan calls for the protection and preservation of the diverse wildlife and plant habitats in Rancho Cordova and incorporation of "large interconnected wooded open space corridors in new development areas	Before the approval of grading or improvement plans or any construction activities and before removal	City of Rancho Cordova Planning Department in consultation with California Department of Fish and

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to provide movement corridors, and nesting sites for migratory songbirds and raptors." Portions of the on-site riparian habitat such as the 57 acres of cottonwood willow riparian woodland and 4 acres of willow scrub have been determined to provide important habitat for wildlife, both at present and in the long term, because of existing conditions that support the perpetuation of these habitats. To implement Goal NR.1, a habitat MMP shall be developed and implemented to replace the 57 acres of cottonwood willow riparian woodland and 4 acres of willow scrub at no-net-loss acreage to preserve the overall habitat functions and values. Elements of the habitat MMP may include habitat preservation on-site, enhancement of on-site riparian habitat types, or enhancement or protection of habitat off-site. The specific ratios of habitat lost to habitat created shall be determined by the City in consultation with DFG as a trustee agency protecting the wildlife resources of the state. The ratios shall be consistent with the City's policy and shall be adequate to protect and preserve the diverse resources in the City. Any conditions of issuance of the riparian MMP shall be implemented as part of project construction activities that adversely affect riparian habitat. The riparian habitat MMP shall be developed by the project applicant(s) and submitted to the City before the approval of any grading or improvement plans or any construction activities in any project phase that could potentially affect the cottonwood willow riparian woodland and willow scrub on-site. The cottonwood–willow riparian forest habitat and willow woodland shall be either preserved or replaced on- or off-site on a no-net-loss basis because it provides functioning riparian habitat that is self-sustaining at the present time. If preservation of this on-site habitat type is chosen, the hydrology that supports this habitat must also be preserved to ensure the long-term viability of this habitat type. The remainder of the riparian habitat on the project site consists mostly of old senescent trees and shrubs and does not appear to be regenerating. It is likely that portions of these communities would not persist at the site under the current environmental conditions even without project implementation. Because of the poor quality of the majority of the riparian habitat on the project site, the project mitigation for this riparian habitat shall be limited to the replacement and/or restoration of its current function and value (which consists of nesting and foraging habitat for raptors and other birds, as well as foraging habitat and shelter for numerous common wildlife species) as determined acceptable to the City in consultation with DFG as a trustee agency.	of any riparian vegetation as required for any project phase.	Game.
3.10-3: Perform Tree Survey and Avoid or Replace Native Oak Trees and Other Native Trees Scattered Throughout the Project Site. Before the approval of any development in areas identified to contain trees, the City shall require that a determinate survey of tree species and size be performed. If any native oaks or other native trees of 6 inches or greater dbh, multitrunk native	Before the approval of any development in any project phase that contains areas that have been identified to	City of Rancho Cordova Planning Department.

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oaks or native trees of 10 inches or greater dbh, or nonnative trees of 18 inches or greater dbh that have been determined by a qualified professional to be in good health are found to exist in the development area, such trees shall be avoided if feasible. If such trees cannot feasibly be avoided, the project applicant(s) for all project phases containing trees shall implement one of the following measures: ► All such trees that will be removed or otherwise damaged by project implementation shall be replaced at an inch-for-inch ratio. A replacement tree planting plan shall be prepared by a qualified professional or licensed landscape architect and shall be submitted to the City for approval before removal of trees; OR ► The project applicant(s) shall submit a mitigation plan that provides for complete mitigation of the removal of such trees in coordination with the City by a method comparable to an inch-by-inch replacement. The mitigation plan shall be subject to City approval. ► The tree planting or mitigation plan shall include monitoring requirements and success criteria, as determined by a qualified professional, to ensure that replacement trees survive to maturity and can be reasonably expected to persist for the normal life span of the particular species being monitored. Monitoring of replacement trees shall continue for a period of five years following planting and trees that do not survive or meet the success criteria shall be replaced. Loss of trees mitigated through implementation of mitigation measures associated with riparian habitat impacts shall not be subject to this mitigation measure. If the City adopts a tree preservation ordinance at any time in the future, any future development activities shall be subject to that ordinance instead.	contain trees.	
3.10-4a: Secure Take Authorization for Federally Listed Vernal Pool Invertebrates and Implement Permit Conditions. No project construction shall proceed in areas supporting potential habitat for federally listed vernal pool invertebrates, or within adequate buffer areas (250 feet or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS), until a BO has been issued by USFWS and the project applicant(s) have abided by conditions in the BO (including conservation and minimization measures) intended to be completed before on-site construction. Conservation and minimization measures shall include preparation of supporting documentation describing methods to protect existing vernal pools during and after project construction, a detailed monitoring plan, and reporting requirements. A revised draft wetland MMP was developed by ECORP Consulting in June 2009 and is the	Before the approval of any grading or improvement plans, before any ground-disturbing activities within 250 feet of said habitat, and on an ongoing basis throughout construction as applicable for all project phases as required by the mitigation plan, BO, and/or	U.S. Army Corps of Engineers, Sacramento District; U.S. Fish and Wildlife Service; and City of Rancho Cordova Planning Department.

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applicant's proposed plan for addressing project impacts on habitats that potentially support federally listed vernal pool invertebrates. The draft MMP, included in Appendix Q to this document, is subject to review and approval by the appropriate regulatory agencies. Project implementation would result in the fill of 33.9 acres of habitat that could potentially support federally listed vernal pool invertebrates. This habitat consists of 17.5 acres of vernal pools, 4.2 acres of seasonal wetland swale, and 12.2 acres of seasonal wetlands. Indirect impacts on an additional 2.2 acres of vernal pools would also result from project implementation. Proposed mitigation in the draft MMP includes a combination of on-site preservation and compensatory mitigation (i.e., creation of vernal pools), as well as off-site mitigation through purchase of a 160-acre property, known as the Cook Property, and credit purchase in the Clay Station Mitigation Bank. The Cook Property mitigation proposal would preserve 21.7 acres of existing wetland habitat, including 2.7 acres of vernal pools, 2.6 acres of seasonal wetland swale, and 9.9 acres of seasonal wetland within the Mather Core Recovery Area that could potentially support federally listed branchiopods. Surveys in the vicinity of the Cook Property have identified vernal pool fairy shrimp and vernal pool tadpole shrimp, and the property is contiguous with other conservation properties that support vernal pool habitat. The Clay Station Mitigation Bank would provide compensatory mitigation in the form of 16.7 acres of created vernal pool habitat that has met success criteria and currently supports both vernal pool fairy shrimp and vernal pool tadpole shrimp. Proposed on-site mitigation consists of designation of a 507-acre wetland preserve in the southern portion of the project site. A total of 20.4 acres of existing vernal pools would be retained in the proposed preserve and an additional 13.4 acres would be restored and created in the preserve under the proposed MMP. The proposed preserve also contains 2.5 acres of seasonal wetland swale, 3.3 acres of seasonal wetland, 0.6 acre of pond, and 1.9 acres of ephemeral drainage. All of these features, as well as that portion of Morrison Creek that is within the 507-acre wetland preserve, would be preserved. In addition, the proposed draft MMP proposes creation of 16.9 acres of seasonal wetlands within the open space corridors that would be developed for the project. In summary, the project would directly or indirectly affect 36.1 acres of potential vernal pool branchiopod habitat; the proposed MMP would preserve 41.4 acres of potential habitat and would create 47.8 acres of potential habitat. This would result in a preservation ratio of 1.15:1 and a compensatory mitigation ratio of 1.32:1, which would result in no net loss of vernal pool or seasonal wetland habitat that could potentially support federally listed vernal pool invertebrates. The details of the MMP are still being developed and reviewed by USACE, and the June 2009 draft is not the final, approved version. The project applicant(s) shall complete and implement a habitat MMP that will result in no net loss	BMPs.	

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of acreage, function, and value of affected vernal pool habitat. The final habitat MMP shall be consistent with the SSCHCP (if adopted) or shall provide an alternative approach that is acceptable to the City, USACE, and USFWS and accomplishes no net loss of habitat. The project applicant(s) for all project phases shall ensure that there is sufficient upland habitat within the target areas for creation and restoration of vernal pools and vernal pool complexes to provide ecosystem health. A watershed analysis of the hydrologic function of the wetland preserve was conducted by ECORP Consulting on behalf of the project applicant(s) (Appendix Q). GIS analysis of a hydrologic model created from LiDAR-derived topography and wetland delineation data was used to determine the minimum watershed area required to support hydrologic function of the wetlands within the preserve. It was found that the proposed configuration of the preserve would conserve almost 100% of the original watershed area and would not negatively affect the hydrologic function of existing vernal pools. The land used to satisfy this mitigation measure shall be protected through a conservation easement acceptable to USACE, the City, and USFWS. The project applicant(s) for all project phases shall identify the extent of indirectly affected vernal pool and seasonal wetland habitat, either by identifying all such habitat within 250 feet of project construction activities or by providing an alternative technical evaluation. If a lesser distance is pursued, this distance shall be approved by USFWS. The project applicant(s) shall preserve acreage of vernal pool habitat for each wetted acre of any indirectly affected vernal pool habitat at a ratio approved by USFWS at the conclusion of the Section 7 consultation. This mitigation shall occur before the approval of any grading or improvement plans for any project phase that would allow work within 250 feet of such habitat, and before any ground-disturbing activity within 250 feet of the habitat. The project applicant(s) will not be required to complete this mitigation measure for direct or indirect impacts that have already been mitigated to the satisfaction of USFWS through another BO or mitigation plan. A standard set of BMPs shall be applied to construction occurring in areas within 250 feet of off-site vernal pool habitat, or within any lesser distance deemed adequate by a qualified biologist (with approval from USFWS) to constitute a sufficient buffer from such habitat. Refer to Section 3.4, "Drainage, Hydrology, and Water Quality," of the 2006 DEIR/DEIS for the details of BMPs to be implemented.		
3.10-4b: Obtain Incidental Take Permit for Impacts on Valley Elderberry Longhorn Beetle. No project construction shall proceed in areas containing VELB habitat (i.e., elderberry shrubs) until a BO has been issued by USFWS, and the project applicant(s) for all project phases have abided by all pertinent conditions in the BO relating to the proposed construction, including	Before the approval of any grading or improvement plans or any ground-disturbing activity within	U.S. Army Corps of Engineers, Sacramento District; U.S. Fish and Wildlife Service; California

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conservation and minimization measures, intended to be completed before on-site construction. Conservation and minimization measures are likely to include preparation of supporting documentation that describes methods for relocating and maintaining existing shrubs and associated vegetation. Relocation of existing elderberry shrubs and planting of new elderberry seedlings shall be implemented on a no-net-loss basis. Detailed information on monitoring success of relocated and planted shrubs and measures to compensate (should success criteria not be met) would also likely be required in the BO. Ratios for mitigation of VELB habitat will ultimately be determined through the ESA Section 7 consultation process with USFWS, but shall be a minimum of "no net loss." Section 7 consultation for the project is ongoing, and a VELB mitigation plan is being developed by ECORP Consulting. The final VELB mitigation plan may include transplanting all existing shrubs, as well as planting elderberry seedlings in the open space corridors, and purchase of credits in a USFWS-approved mitigation bank. Based on the current (dated) knowledge of the number of shrubs on-site and the latest VELB preservation guidelines, it is expected that approximately 3,088 seedlings would need to be planted over an area of approximately 25 acres to fulfill VELB mitigation requirements and no net loss of habitat. Implementation of the final approved plan would satisfy mitigation requirements for the removal of elderberry savanna, a sensitive habitat as identified by DFG, as well as single elderberry shrubs. A copy of the USFWS-approved mitigation plan shall be submitted to the City before the approval of any grading or improvement plans or any ground-disturbing activities within 100 feet of VELB habitat for all project phases. Should delisting of VELB occur, a mitigation plan that would compensate for the removal of elderberry savanna, a sensitive habitat as identified by DFG, would still be required. The mitigation plan shall be submitted to and approved by DFG and the City before the approval of any grading or improvement plans or any ground-disturbing activities that would affect elderberry savanna for all project phases.	100 feet of VELB habitat as applicable for all project phases, and on an ongoing basis as required by the mitigation plan and/or BO.	Department of Fish and Game (if VELB delisted); and City of Rancho Cordova Planning Department.
3.10-4c: Conduct Preconstruction Surveys for Nesting Raptors and, if Found, Establish Appropriate Buffers. To mitigate impacts on Swainson's hawk and other raptors (including burrowing owl) for all project phases, the project applicant(s) shall retain a qualified biologist to conduct preconstruction surveys and to identify active nests on and within 0.5 mile of the project site and active burrows on the project site. The surveys shall be conducted before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction for all project phases. To the extent feasible, guidelines	Before the approval of grading and improvement plans, before any ground-disturbing activities, and during project construction as applicable for all project phases.	City of Rancho Cordova Planning Department.

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provided in *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley* (Swainson's Hawk Technical Advisory Committee 2000) shall be followed. If no nests are found, no further mitigation is required. If active nests are found, impacts on nesting Swainson's hawks and other raptors shall be avoided by establishment of appropriate buffers around the nests. No project activity shall commence within the buffer area until a qualified biologist confirms that any young have fledged and the nest is no longer active. DFG guidelines recommend implementation of 0.25- or 0.5-mile buffers, but the size of the buffer may be adjusted if a qualified biologist and the City, in consultation with DFG, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest. If active burrows are found, a mitigation plan shall be submitted to the City for review and approval before any ground-disturbing activities. The City shall consult with DFG. The mitigation plan may consist of installation of one-way doors on all burrows to allow owls to exit, but not reenter, and construction of artificial burrows within the project vicinity, as needed. If active burrows contain eggs and/or young, no construction shall occur within 50 feet of the burrow until young have fledged. Once it is confirmed that there are no owls inside burrows, these burrows may be collapsed.		
3.10-4d: Prepare and Implement a Swainson's Hawk Mitigation Plan. The project applicant(s) for all project phases shall implement one of the following measures: ► Before the approval of grading and improvement plans or before any ground-disturbing activities, whichever occurs first, the project applicant(s) shall preserve, to the satisfaction of the City, suitable Swainson's hawk foraging habitat to ensure 1:1 mitigation of habitat value for Swainson's hawk foraging habitat lost as a result of the project, as determined by the City after consultation with DFG and a qualified biologist. The 1:1 habitat value shall be based on Swainson's hawk nesting distribution and an assessment of habitat quality, availability, and use within the City's planning area. If specific data for Rancho Cordova's Swainson's hawk habitat are not available at the time that this mitigation measure is being implemented, the mitigation ratio shall be consistent with the 1994 DFG Swainson's Hawk Guidelines included in the *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California*. Such mitigation shall be accomplished through either the transfer of fee title or perpetual	Before the approval of grading, improvement, or construction plans and before any ground-disturbing activity in any project development phase that would affect Swainson's hawk foraging habitat.	City of Rancho Cordova Planning Department.

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conservation easement. The mitigation land shall be located within the known foraging area and within Sacramento County. The City, after consultation with DFG, will determine the appropriateness of the mitigation land. Before approval of such proposed mitigation, the City shall consult with DFG regarding the appropriateness of the mitigation. If mitigation is accomplished through conservation easement, then such an easement shall ensure the continued management of the land to maintain Swainson's hawk foraging values, including but not limited to ongoing agricultural uses and the maintenance of all existing water rights associated with the land. The conservation easement shall be recordable and shall prohibit any activity that substantially impairs or diminishes the land's capacity as suitable Swainson's hawk habitat. The project applicant(s) shall transfer said Swainson's hawk mitigation land, through either conservation easement or fee title, to a third-party, nonprofit conservation organization (Conservation Operator), with the City and DFG named as third-party beneficiaries. The Conservation Operator shall be a qualified conservation easement land manager that manages land as its primary function. Additionally, the Conservation Operator shall be a tax-exempt nonprofit conservation organization that meets the criteria of Civil Code Section 815.3(a) and shall be selected or approved by the City, after consultation with DFG. The City, after consultation with DFG and the Conservation Operator, shall approve the content and form of the conservation easement. The City, DFG, and the Conservation Operator shall each have the power to enforce the terms of the conservation easement. The Conservation Operator shall monitor the easement in perpetuity to assure compliance with the terms of the easement. The project applicant(s), after consultation with the City, DFG, and the Conservation Operator, shall establish an endowment or some other financial mechanism that is sufficient to fund in perpetuity the operation, maintenance, management, and enforcement of the conservation easement. If an endowment is used, either the endowment funds shall be submitted to the City to be distributed to an appropriate third-party nonprofit conservation agency, or they shall be submitted directly to the third-party nonprofit conservation agency in exchange for an agreement to manage and maintain the lands in perpetuity. The Conservation Operator shall not sell, lease, or transfer any interest of any conservation easement or mitigation land it acquires without prior written approval of the City and DFG. If the Conservation Operator ceases to exist, the duty to hold, administer, manage, maintain, and enforce the interest shall be transferred to another entity acceptable to the City and DFG. The City Planning Department shall ensure that mitigation habitat is properly established and		

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is functioning as habitat by conducting regular monitoring of the mitigation site(s) for the first 10 years after establishment of the easement. OR ► The project applicant(s) may participate in a future City Swainson's Hawk Foraging Habitat Ordinance (once adopted) as an alternative to the measure above. OR ► The project applicant(s) may participate in a future habitat conservation plan (once adopted) as an alternative to the above measures.		
3.10-5: Incorporate Measures to Protect Greene's Legenere in the Mitigation Monitoring Plan. Direct impacts on the population of Greene's legenere located within the wetland preserve shall be avoided to the maximum extent feasible. An MMP for Greene's legenere is being developed on behalf of the project applicant(s) by ECORP Consulting. Before the approval of grading plans or any ground-breaking activity within 250 feet of any Greene's legenere population, the mitigation plan shall be submitted to the City for review and approval. The plan shall be submitted concurrently to DFG and USFWS for review and comment, and the City may consult with these entities before approval of the plan. The plan is required to maintain viable plant populations on-site and shall include avoidance measures for the existing population to be retained and mitigation measures for the populations to be directly affected. Possible avoidance measures include fencing of the population before construction and exclusion of project activities from the fenced-off areas, and construction monitoring by a qualified botanist to keep construction crews away from the population. Indirect impacts (i.e., changes in hydrology) shall be minimized by placing culverts to the vernal pool where this population occurs, if necessary. Possible mitigation for the two populations of Greene's legenere that would be removed during construction of the drainage parkway includes the collection of seeds from the existing populations and inoculation of the collected seeds into existing or compensatory vernal pools within the wetland preserve. The mitigation plan proposes that the best option for the successful germination of seeds would be to inoculate existing pools that are similar in size and depth and hydration period, and with similar associated species as the pools that currently support Greene's legenere. Mitigation for the populations of legenere proposed to be directly affected shall commence before the approval of any plans for, or any ground-breaking activities near, the locations of such legenere populations. Monitoring of the existing population of Greene's legenere and the seeded populations shall be conducted in conjunction with monitoring of vernal pools and shall continue for a minimum period of 5 years.	Before the approval of grading or improvement plans or any ground-breaking activity within 250 feet of any Greene's legenere population, including grubbing and clearing, for any project development phase. Ongoing monitoring shall occur for a minimum of 5 years following the completion of all construction activities.	City of Rancho Cordova Planning Department.

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3.11 VISUAL RESOURCES		
3.11-3: Require Development to Conform to City General Plan Design Guidelines. The project applicant(s) for all project phases shall include design, architectural, development, and maintenance standards in the Rio del Oro Specific Plan that will ensure minimization of impacts to the existing visual character of the site. Through this process the project applicant(s) shall ensure that urban development at the project site is substantially consistent with the Design Guidelines adopted as part of the City General Plan. OR Before the approval of building permits, all structures and facilities shall adhere to the City's design review process.	Before approval of building permits for all structures within all project phases.	City of Rancho Cordova Planning Department.
3.11-4: Screen Construction Staging Areas. The project applicant(s) for all project phases shall locate staging and material storage areas as far away from sensitive land uses (i.e., residential areas, schools, parks) and/or nearby roadways as possible. Staging and material storage areas shall be approved by the City before the approval of grading plans and building permits for all project phases, and shall be screened from adjacent occupied land uses in earlier development phases to the maximum extent practicable. Screens may include berms or fences. The screen design shall be approved by the City to reduce further visual effects to the extent possible.	Before approval of grading plans and building permits, and during all phases of construction for all project phases.	City of Rancho Cordova Public Works Department.
3.11-5: Screen Mining Areas. Before the issuance of certificates of occupancy and final inspections for facilities where mining activities will be visible, the project applicant(s) for all project phases shall visually screen project-related development from mining activities to the maximum extent practicable. If mining activities, including reclamation activities, are anticipated to occur for more than 1 year after project approval, a combination of fast-growing shrubs and trees shall be planted around mining project boundaries to provide screening.	Before the issuance of certificates of occupancy and final inspections for facilities where mining activities would be visible for all project phases.	City of Rancho Cordova Planning Department.
3.11-6: Establish and Require Conformance to Lighting Standards and Prepare and Implement a Lighting Plan. To reduce impacts associated with light and glare, the project applicant(s) for all project phases shall conform to the following guidelines: ► Meet the minimum City lighting standards for all project-related lighting. All lighting fixtures shall be designed to be consistent with the Design Guidelines contained in the City General Plan.	Before approval of building permits for all phases.	City of Rancho Cordova Planning and Public Works Departments.

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► Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties. ► Place and direct flood or area lighting needed for construction activities or for nighttime sporting activities to not disturb adjacent residential areas and passing motorists. ► Prohibit the use of harsh mercury vapor, low-pressure sodium, or fluorescent bulbs for public lighting in residential neighborhoods. ► Use appropriate building materials, lighting, and signage in the office/commercial areas to prevent light and glare from adversely affecting motorists on nearby roadways. ► Design exterior lighting as an integral part of the building and landscape design in the Rio del Oro Specific Plan area. Lighting fixtures shall be architecturally consistent with the overall site design and character and shall be consistent with the City's Design Guidelines. ► Establish standards for outdoor lighting to reduce high-intensity nighttime lighting and glare as part of the Rio del Oro Specific Plan design guidelines/standards. Consideration shall be given to design features, namely directional shielding for street lighting, parking lot lighting, and other significant light sources, that will reduce effects of nighttime lighting. In addition, consideration shall be given to the use of automatic shutoffs or motion sensors for lighting features to further reduce excess nighttime light. All nighttime lighting shall be shielded to prevent the light from shining off of the surface intended to be illuminated. A lighting plan shall be submitted to the City for review and approval which shall include the above elements. The lighting plan may be submitted concurrently with other improvement plans, and shall be submitted before the installation of any lighting or the approval of building permits for all phases. The project applicant(s) of all future phases shall implement the approved lighting plan.		
3.13 HAZARDS AND HAZARDOUS MATERIALS		
3.13-2a: Require the Project Applicant(s) to Cooperate with Aerojet and Regulatory Agencies to Preserve, Modify, or Close Existing Groundwater Monitoring Wells. The project applicant(s) shall work with Aerojet, DTSC, and the Central Valley RWQCB or any successor to establish the preservation, modification, or closure of existing groundwater monitoring wells. If groundwater wells are to be affected by proposed tentative maps, then the project applicant(s) or successors shall provide the City with evidence that the relocation, modification, or closure of the well(s) is approved by the appropriate agencies as part of the City's final map approval process	Before approval of small-lot tentative maps for any portions of the project site except the Phase 1 area as shown in Exhibit 3.13-1.	California Department of Toxic Substances Control, Central Valley Regional Water Quality Control Board, Aerojet General Corporation, and City of Rancho Cordova Planning

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and before development.		Department.
3.13-2b: Coordinate Development Activities to Avoid Interference with Remediation Activities. The project applicant(s) for all project phases shall provide notice to Aerojet or any successor in interest and DTSC, the Central Valley RWQCB, and the City of the location, nature, and duration of construction activities within each phase of development at least 1 month before the construction activities begin in areas on or near property with current or planned remediation activities. Before the approval of grading plans for all project phases, the project applicant(s) shall work with Aerojet, DTSC, and the Central Valley RWQCB or any successor to schedule the timing of construction activities to prevent potential conflicts with remediation activities.	Before approval of grading plans and during construction activities for all project phases.	California Department of Toxic Substances Control, Central Valley Regional Water Quality Control Board, Aerojet General Corporation, and City of Rancho Cordova Planning Department.
3.13-2c: Notify the City in Writing that DTSC-Required Notification Obligations Regarding Deed Restrictions and/or Easements Have Been Fulfilled. Pursuant to its oversight over investigations of hazardous substances and determination of remedial action, DTSC establishes, as appropriate, deed restrictions (e.g., restrictions on future groundwater uses or future land uses) or easements (e.g., continued access to groundwater wells and pipelines) on property with associated notice requirements. The project applicant(s) for all such affected project phases shall provide notification in writing to the City that said required DTSC notification obligations have been fulfilled. Evidence of the method of notification required by DTSC shall be submitted to the City before approval of final maps and/or the issuance of permits for sales trailers and model homes. The project applicant(s) for such affected project phases shall coordinate with the City to include this provision as part of tentative map approval.	Before approval of small-lot final maps and/or issuance of permits for sales trailers and model homes for all project phases.	City of Rancho Cordova Planning Department.
3.13-3: Conduct a Hazardous-Building-Materials Study and Implement all Applicable Regulations. Before the approval of demolition permits for any existing on-site buildings, the project applicant(s) for all project phases, except development Phase 1 shall hire a qualified consultant to investigate whether any of the existing on-site structures contain lead or ACMs that could become friable or mobile during demolition activities. If lead-containing materials or ACMs are found, the project applicant(s) shall coordinate with the County Environmental Management Department to ensure that such materials are properly removed (i.e., by an accredited inspector in accordance with EPA and Cal-OSHA standards). In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal-OSHA standards related to exposure of workers to asbestos and lead. The lead-containing materials and ACMs shall be handled properly and transported to an appropriate off-site disposal facility.	Before approval of demolition permits for existing on-site structures and during all demolition activities for all project phases, except development Phase1.	County of Sacramento Environmental Management Department and City of Rancho Cordova Planning Department.

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3.13-5: Implement Public-Safety Features during Construction Activities and Mining Operations. The following public-safety protection features shall be implemented before the approval of grading plans and building permits for all project phases, and before issuance of future mining permits: ► Temporary fencing shall be installed around construction areas with signage indicating the presence of an active construction zone, and warning the public to keep out. ► Temporary fencing shall be installed around mining areas with signage indicating the presence of active mining operations, and warning the public to keep out. ► Mining equipment shall not be operated and mining activities shall not occur within 1,100 feet of any noise-sensitive receptor, or within 375 feet if a temporary barrier is constructed in accordance with the following specifications: • The barrier shall be located as close to the noise source or as close to the receptor as possible and shall break the line of sight between the source and receptor. • The barrier shall be constructed with three-quarter-inch Medium Density Overlay (MDO) plywood sheeting, or other acceptable material having a surface weight of 2 pounds per square foot (lb/sf) or greater, and a demonstrated Sound Transmission Class (STC) rating of 25 or greater as defined by American Society for Testing and Materials (ASTM) Test Method E90. • Weather- and abuse-resistant material shall be used for a temporary acoustical curtain. The material shall exhibit superior hanging and tear strength during construction with a surface weight of at least 1 lb/sf. The material shall have a minimum breaking strength of 120 pounds per inch (lb/in) per Federal Test Method Standard (FTMS) 191 A-M5102 and minimum tear strength of 30 lb/in per ASTM Test Method D117. Based on the same test procedures, the absorptive material facing shall have a minimum breaking strength of 100 lb/in and minimum tear strength of 7 lb/in. The material shall have an STC rating of 25 or greater, based on certified sound transmission loss data taken according to ASTM Test Method E90. It shall also have a Noise Reduction Coefficient (NRC) rating of 0.70 or greater, based on certified sound absorption coefficient data according to ASTM Test Method C423. • The mating surfaces of the barrier sides shall be installed flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that will completely close the gaps, and be dense enough to attenuate noise.	Before the approval of grading plans and building permits for all project phases, before issuance of future mining permits, and during all project construction for all project phases and mining activities.	City of Rancho Cordova Public Works Department and Building and Safety Department.

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3.13-6: Develop and Implement Site-Specific Wetland Mosquito Management Guidelines. Before the start of construction activities for all project phases, the project applicant(s) shall develop a set of site-specific Wetland Mosquito Management Guidelines. The guidelines shall be submitted to the City for review and approval. The project applicant(s) shall implement the guidelines once they have been approved.	Before the start of construction activities and as specified in the guidelines for all project phases.	City of Rancho Cordova Public Works Department and Building and Safety Department.
3.14 TRAFFIC AND TRANSPORTATION		
3.14-1: Mitigation Measure Common to All Impacts under Impact 3.14-1 To avoid repetition, the information contained in the following mitigation measure applies to all other mitigation measures required under Impact 3.14-1. The project applicant(s) for all project phases shall participate in the necessary improvements identified in all of the following mitigation measures. The project's fair-share participation and the associated timing of the improvements shall be identified in Tier 2 entitlements for the project and before any Development Activity, as that term is defined in the Tier 1 Development Agreements, on the property.The mitigation monitoring and reporting program for the project will be amended to include these participation and timing details for traffic improvements. The timing and enforcement would be the same for all identified mitigation measures associated with Impact 3.14-1.	As part of Tier 2 entitlements and before any Development Activity, as that term is defined in the Tier 1 Development Agreements.	City of Rancho Cordova Public Works Department.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-1a: Participate in Improvements to the SR 16/Excelsior Road Intersection (Intersection 1). To ensure that the SR 16/Excelsior Road intersection operates at an acceptable LOS, all of the following improvements are required: ► The northbound approach must be reconfigured to consist of one left-turn lane, one through lane, and one shared through/right-turn lane. ► The southbound approach must be reconfigured to consist of two left-turn lanes, two through lanes, and one right-turn lane. ► The eastbound approach must be reconfigured to consist of one left-turn lane, one through lane, and one right-turn lane. ► The westbound approach must be reconfigured to consist of one left-turn lane, two through lanes, and one right-turn lane. These improvements would require widening of SR 16 east and west of the intersection to accommodate the additional lanes. Improvements to the SR 16/Excelsior Road intersection are contained within the *SunRidge Specific Plan Public Facilities Financing Plan* and zoning conditions. The CEQA Findings of Fact and Statement of Overriding Considerations for the Sunrise Douglas Community Plan/SunRidge Specific Plan Project state that physical improvement of this intersection is feasible. Implementation of the improvements described above would assist in reducing traffic impacts on this intersection by providing acceptable operations. If these improvements are completed concurrent with development of the SunRidge Specific Plan and implemented before development Phase 1 of the Rio del Oro project, then the project impact at this intersection would be reduced to a less-than-significant level. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. The impact conclusion reached in the DEIR/DEIS is significant and unavoidable because the identified improvements fall under the jurisdiction of Caltrans and the County, and neither the City nor the project applicant(s) would have control over their timing or implementation.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1b: Participate in Improvements at the SR 16/Eagles Nest Road Intersection (Intersection 2). To ensure that the SR 16/Eagles Nest Road intersection operates at an acceptable LOS, a traffic signal must be installed at this intersection, and the eastbound and westbound approaches	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative.

Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
must be reconfigured to consist of one left-turn lane, one through lane, and one shared through/right-turn lane. These improvements would require widening of SR 16 for 1,000 feet on both sides of this intersection to accommodate the additional through lanes. Improvements to the SR 16/Eagles Nest Road intersection are contained within the *SunRidge Specific Plan Public Facilities Financing Plan* and zoning conditions. The CEQA Findings of Fact and Statement of Overriding Considerations for the Sunrise Douglas Community Plan/SunRidge Specific Plan Project state that physical improvement of this intersection is feasible. Implementation of the improvements described above, including the necessary widening of SR 16, would assist in reducing traffic impacts on this intersection. If these improvements are completed concurrent with development of the SunRidge Specific Plan and implemented before development Phase 1 of the Rio del Oro project, then the project impact at this intersection would be reduced to a less-than-significant level. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies.		
3.14-1c: Participate in Improvements to the SR 16/Sunrise Boulevard Intersection (Intersection 3). To ensure that the SR 16/Sunrise Boulevard intersection operates at an acceptable LOS, the northbound approach must be reconfigured to consist of one left-turn lane, one through lane, and one shared through/right-turn lane; and the southbound approach must be reconfigured to consist of one left-turn lane, two through lanes, and one right-turn lane. An additional through lane would be needed in the eastbound and westbound directions, which would require widening of SR 16 on both sides of the intersection for a minimum of 1,000 feet in both directions. With these improvements, this intersection would operate at an acceptable LOS. Improvements to the SR 16/Sunrise Boulevard intersection are contained within the County Development Fee Program, are scheduled for Measure A funding, and are within the *Mather Field Specific Plan Financing Plan*. Implementation of the improvements described above, including the necessary widening of SR 16, would assist in reducing traffic impacts on this intersection. If these improvements are completed concurrent with development of the Mather Field Specific Plan and implemented before development Phase 1 of the Rio del Oro project, then the project impact at this intersection would be reduced to a less-than-significant level.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative.

Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies. The impact conclusion reached in the DEIR/DEIS is significant and unavoidable because the identified improvements fall under the jurisdiction of Caltrans and the County, and neither the City nor the project applicant(s) would have control over their timing or implementation.		
3.14-1d: Participate in Improvements to the SR 16/Grant Line Road Intersection (Intersection 4). To ensure that the SR 16/Grant Line Road intersection operates at an acceptable LOS, all of the following improvements are required: ► The northbound and southbound approaches must be reconfigured to consist of one left-turn lane and one shared through/right-turn lane. ► Protected left-turn signal phasing must be provided on the northbound and southbound approaches. ► The eastbound and westbound approaches must be reconfigured to consist of one left-turn lane, one through lane, and a shared through/right-turn lane. These improvements would require widening of SR 16 1,000 feet on both sides of the intersection. Improvements to the SR 16/Grant Line Road intersection are contained within the County Development Fee Program, are scheduled for Measure A funding, and are within the *Mather Field Specific Plan Financing Plan.* Implementation of the improvements described above, including the necessary widening of SR 16, would assist in reducing traffic impacts on this intersection; with them, this intersection would operate at an acceptable LOS. If these improvements are completed concurrent with development of the Mather Field Specific Plan and implemented before development Phase 1 of the Rio del Oro project, then the project impact at this intersection would be reduced to a less-than-significant level. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1e: Participate in Improvements to the Florin Road/Sunrise Boulevard Intersection (Intersection 5). To ensure that the Florin Road/Sunrise Boulevard intersection operates at an acceptable LOS, the southbound approach must be reconfigured to consist of one through lane and	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
one dedicated right-turn lane. Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies.		
3.14-1f: Participate in Improvements to the Grant Line Road/Sunrise Boulevard Intersection (Intersection 6). To ensure that the Grant Line Road/Sunrise Boulevard intersection operates at an acceptable LOS, all of the following improvements are required: ► A traffic signal must be installed at this intersection. ► The southbound approach must be reconfigured to consist of one left-turn lane, one through lane, and two dedicated right-turn lanes. ► The northbound approach must be reconfigured to consist of one left-turn lane, one through lane, and one right-turn lane. ► Protected left-turn phases must be provided on the northbound and southbound approaches. ► A second eastbound left-turn lane must be added. ► Adequate receiving lanes must be provided on Sunrise Boulevard and Grant Line Road to accommodate the identified intersection geometrics. Interim improvements to the Grant Line Road/Sunrise Boulevard intersection are contained within the Elk Grove West Vineyard Plan, with ultimate improvements within the *Vineyard Springs Comprehensive Plan Public Facilities Financing Plan*. Implementation of the improvements described above would assist in reducing traffic impacts on this intersection. If the improvements are completed concurrent with development of the West Vineyard Specific Plan and implemented before development Phase 1 of the Rio del Oro project, then the project impact at this intersection would be reduced to a less-than-significant level. Improvements to this intersection must be coordinated with the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1g: Participate in Improvements to the Grant Line Road/Douglas Road Intersection (Intersection 8). To ensure that the Grant Line Road/Douglas Road intersection operates at an acceptable LOS, a traffic signal must be installed at this intersection. Improvements to the Grant Line Road/Douglas Road intersection are contained within the	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
SunRidge Specific Plan Public Facilities Financing Plan. Implementation of the improvement described above would assist in reducing traffic impacts on this intersection. If this improvement is completed concurrent with development of the SunRidge Specific Plan and implemented before development Phase 1 of the Rio del Oro project, then the project impact at this intersection would be reduced to a less-than-significant level.		
3.14-1h: Participate in Improvements to the Sunrise Boulevard/Douglas Road Intersection (Intersection 9). Improvements must be made to ensure that the Sunrise Boulevard/Douglas Road intersection operates at an acceptable LOS. Specifically, all approaches must be reconfigured to consist of two left-turn lanes, three through lanes, and one right-turn lane. However, with implementation of this improvement, the intersection would continue to operate at an unacceptable LOS E or LOS F. To further improve operations at the intersection, additional roadway connectivity is required. To achieve this connectivity, the Zinfandel Drive Extension must be implemented (to accommodate traffic generated within the SunRidge Specific Plan area), International Drive must be extended to Sunrise Boulevard and into and through the Rio del Oro project site, and Rancho Cordova Parkway (and its connection to U.S. 50) must be implemented. Improvements to this intersection are contained within the *SunRidge Specific Plan Public Facilities Financing Plan*. The extension of Zinfandel Drive is identified as part of the *Mather Field Specific Plan Public Facilities Financing Plan*. Funding has been identified for Rancho Cordova Parkway and the interchange and for the extension of International Drive to Sunrise Boulevard within the City's CIP program. Implementation of the improvements identified above would assist in reducing traffic impacts on this intersection. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1i: Participate in Improvements to the Mather Field Road/U.S. 50 Eastbound Ramps Intersection (Intersection 12). Improvements must be made to ensure that the Mather Field Road/U.S. 50 eastbound ramps intersection operates at an acceptable LOS. Specifically, the eastbound ramp needs modification to make the eastbound right turn a "free" movement. This would require a receiving lane on Mather Field Road, south of the intersection. To further improve operations at the intersection, additional roadway connectivity is required. To	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
achieve this connectivity, the Zinfandel Drive Extension must be implemented (to accommodate traffic generated within the SunRidge Specific Plan area), International Drive must be extended to Sunrise Boulevard and into and through the Rio del Oro project site, and Rancho Cordova Parkway (and its connection to U.S. 50) must be implemented. The extension of Zinfandel Drive is identified as part of the *Mather Field Specific Plan Public Facilities Financing Plan*. Funding has been identified for Rancho Cordova Parkway and the interchange and for the extension of International Drive to Sunrise Boulevard within the City's CIP program. Implementation of the improvements identified above would assist in reducing traffic impacts on this intersection. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies.		
3.14-1j: Participate in Improvements to the Zinfandel Drive/White Rock Road Intersection (Intersection 15). To offset project-related impacts at the Zinfandel Drive/White Rock Road intersection, all of the following improvements are required: ► The southbound approach must be reconfigured to consist of three left-turn lanes, two through lanes, and one right-turn lane. ► The eastbound approach must be reconfigured to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lane. ► The westbound approach must be reconfigured to consist of two left-turn lanes, three through lanes, and one free right-turn lane. Although these improvements offset the impacts of the project, this intersection would still operate at an unacceptable LOS. Additional improvements must be made to satisfy the City's LOS D threshold, including additional roadway connectivity such as the extension of International Drive to Sunrise Boulevard, extension of Kiefer Boulevard, and implementation of Rancho Cordova Parkway (and its connection to U.S. 50). Improvements to this intersection are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of the improvements identified above would assist in reducing traffic impacts on this intersection.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-1k: Participate in Improvements to the Zinfandel Drive/U.S. 50 Eastbound Ramps Intersection (Intersection 16). To ensure that the Zinfandel Drive/U.S. 50 eastbound ramps intersection operates at an acceptable LOS, all of the following improvements are required: ► The northbound approach must be reconfigured to consist of four through lanes and one shared through/right-turn lane. ► The eastbound approach must be reconfigured to consist of three left-turn lanes, one through lane, and one free right-turn lane. ► The westbound approach must be reconfigured to consist of three right-turn lanes. ► The southbound approach must be reconfigured to consist of three through lanes and a free right-turn lane. Improvements to this intersection are identified in the City's CIP. Implementation of the improvements identified above would assist in reducing traffic impacts on the intersection. These improvements must be coordinated with Caltrans and other potentially affected oversight agencies.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1l: Participate in Improvements to the Sunrise Boulevard/White Rock Road Intersection (Intersection 18). Implement parallel roadway improvements identified in Mitigation Measure 3.14-1m.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1m: Participate in Improvements to the Sunrise Boulevard/Folsom Boulevard Intersection (Intersection 19). Implement Rancho Cordova Parkway (and its connection to U.S. 50), Zinfandel Drive Extension, International Drive Extension into and through the Rio del Oro project site, and realign International Drive with Old Placerville Road (with associated roadway improvements). Implementing these improvements would improve operations at and assist in reducing traffic impacts on this intersection.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-1n: Participate in Improvements to the Sunrise Boulevard/U.S. 50 Westbound Ramps Intersection (Intersection 21). Improvements must be made to ensure that the Sunrise Boulevard/U.S. 50 westbound ramps intersection operates at an acceptable LOS. Specifically, the westbound approach would need to consist of three left-turn lanes and two right-turn lanes. Improvements to this interchange are identified in the City's CIP program. An alternative to these improvements is to implement parallel capacity improvements, such as implementation of Rancho Cordova Parkway (and its connection to U.S. 50), Zinfandel Drive Extension, International Drive Extension into and through the Rio del Oro project site, and realignment of International Drive with Old Placerville Road (with associated roadway improvements). Implementing these alternative improvements would improve operations at and assist in reducing traffic impacts on this intersection. (See Mitigation Measure MM 3.14-1m.)	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1o: Participate in Improvements to the Sunrise Boulevard/Zinfandel Drive Intersection (Intersection 22 Implement grade separation at the intersection of Sunrise Boulevard/Zinfandel Drive consistent with the City's Circulation Element/Plan.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1p: Participate in Improvements to the Hazel Avenue/Folsom Boulevard Intersection (Intersection 23). To ensure that the Hazel Avenue/Folsom Boulevard intersection operates at an acceptable LOS, the westbound approach must be reconfigured to consist of one left-turn lane, one through lane, and two right-turn lanes. An alternative to this improvement that is consistent with the City's Circulation Element/Plan is to implement parallel capacity improvements, such as Easton Valley Parkway and upgrades to White Rock Road.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1q: Participate in Improvements to the Hazel Avenue/U.S. 50 Eastbound Ramps Intersection (Intersection 24). To ensure that the Hazel Avenue/U.S. 50 eastbound ramps intersection operates at an acceptable LOS, an additional eastbound left-turn lane must be installed, with an appropriate receiving lane. Improvements to this intersection must be coordinated with Caltrans and other potentially affected oversight agencies.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-1r: Participate in Improvements to the Hazel Avenue/U.S. 50 Westbound Ramps Intersection (Intersection 25). To ensure that the Hazel Avenue/U.S. 50 westbound ramps intersection operates at an acceptable LOS, an additional westbound right-turn lane must be installed on the off-ramp. Improvements to this intersection must be coordinated with Caltrans, the County, and other potentially affected oversight agencies.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1s: Participate in Improvements to the Grant Line Road/White Rock Road Intersection (Intersection 26). To ensure that the Grant Line Road/White Rock Road intersection operates at an acceptable LOS, all of the following improvements are required: ► A traffic signal must be installed at this intersection. ► One through lane and one dedicated right-turn lane must be added on the southbound approach. ► One left-turn lane and one shared left/through/right-turn lane must be added on the eastbound approach. ► One left-turn lane and one through lane must be added on the northbound approach. Improvements to this intersection must be coordinated with the County and other potentially affected oversight agencies.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1t: Participate in Improvements to the Kilgore Road/White Rock Road Intersection (Intersection 27). To ensure that the Kilgore Road/White Rock Road intersection operates at an acceptable LOS with implementation of development Phase 1, all of the following improvements are required: ► A free right-turn lane must be added on the northbound approach with an associated receiving lane (which would require widening of the White Rock Road crossing of the Folsom South Canal). ► One through lane must be added on the eastbound approach. ► Two left-turn lanes must be provided on the westbound approach. For buildout of the specific plan under the three development alternatives, the improvements described above are required. In addition, one left-turn lane, two through lanes, and one right-turn lane must be added to the southbound approach. Alternatively, International Drive could be	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
extended into and through the Rio del Oro project site if desired, to provide parallel capacity to White Rock Road. Although these required improvements would offset impacts associated with the project under buildout of the specific plan, this intersection would not operate acceptably. For this intersection to operate acceptably under buildout of all three development alternatives, International Drive would have to be extended into and through the project site in conjunction with the identified improvements. The crossing of the Folsom South Canal must be coordinated with the U.S. Bureau of Reclamation and appropriate oversight agencies.		
3.14-1u: Participate in Improvements to Mather Boulevard between Femoyer Street and Douglas Road (Roadway Segment 4). To ensure that Mather Boulevard operates at an acceptable LOS between Femoyer Street and Douglas Road, Femoyer Street must be widened to four lanes between Mather Boulevard and the proposed Zinfandel Drive extension, and the future Zinfandel Drive extension must be constructed as a four-lane facility from Femoyer Street to Douglas Road. Improvements to this roadway segment must be coordinated with the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1v: Participate in Improvements to Douglas Road between Mather Boulevard and Sunrise Boulevard (Roadway Segment 5). To ensure that Douglas Road operates at an acceptable LOS between Mather Boulevard and Sunrise Boulevard, Douglas Road must be widened to four lanes. Improvements to this roadway segment must be coordinated with the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1w: Participate in Improvements to White Rock Road between Sunrise Boulevard and Grant Line Road (Roadway Segment 9). To ensure that White Rock Road operates at an acceptable LOS between Sunrise Boulevard and Grant Line Road, White Rock Road must be widened to four lanes. Improvements to this roadway segment must be coordinated with the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-1x: Participate in Improvements to Zinfandel Drive between the U.S. 50 Eastbound Ramps and White Rock Road (Roadway Segment 15). Implement parallel capacity improvements, such as implementation of Rancho Cordova Parkway (and its connection to U.S. 50), extension of International Drive into and through the project site, and connectivity between International Drive and Old Placerville Road. Improvements to this roadway segment must be coordinated with the County.Improvements to this roadway segment must be coordinated with the County. The impact conclusion reached in the DEIR/DEIS is significant and unavoidable because widening this segment is inconsistent with the City's Circulation Element/Plan, and because the alternative improvements fall partially under the jurisdiction of the County, meaning that neither the City nor the project applicant(s) can ensure their implementation.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1aa: Participate in Improvements to Sunrise Boulevard between the U.S. 50 Eastbound Ramps and Folsom Boulevard (Roadway Segment 19). Implement parallel capacity improvements, such as implementation of Rancho Cordova Parkway (and its connection to U.S. 50), which could improve operations on this segment and reduce the project's impact. Improvements to this roadway segment must be coordinated with Caltrans, Sacramento RT, and other potentially affected oversight agencies.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1bb: Participate in Improvements to Sunrise Boulevard between Folsom Boulevard and White Rock Road (Roadway Segment 20). Implement parallel capacity improvements, such as implementation of Rancho Cordova Parkway (and its connection to U.S. 50), which could improve operations on this segment and reduce the project's impact. Improvements to this roadway segment must be coordinated with Caltrans and the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1cc: Participate in Improvements to Sunrise Boulevard between White Rock Road and Douglas Road (Roadway Segment 21). Implement parallel capacity improvements, such as implementation of Rancho Cordova Parkway (and its connection to U.S. 50), which could improve operations on this segment and reduce the project's impact. Improvements to this intersection must be coordinated with Caltrans and the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-1dd: Participate in Improvements to Sunrise Boulevard between SR 16 and Grant Line Road (Roadway Segment 22). To ensure that Sunrise Boulevard operates at an acceptable LOS between SR 16 and Grant Line Road, this roadway segment must be widened to four lanes. This improvement is included within the County's development fee program. If this improvement is implemented before development Phase 1 of the Rio del Oro project, then the project impact at this intersection would be reduced to a less-than-significant level. Improvements to this roadway segment must be coordinated with the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1ee: Participate in Improvements to Hazel Avenue between Winding Way and the U.S. 50 Westbound Ramps (Roadway Segment 23). To improve operations on Hazel Avenue between Winding Way and the U.S. 50 westbound ramps, this roadway segment must be widened to six lanes. This improvement is included within the County's development fee program and is expected to receive Measure A funding. With the identified improvement, this segment would still operate at an unacceptable LOS for the Baseline Plus Phase 1 and Baseline Plus Full Project Buildout scenarios under all three development alternatives, but the improvement would offset the amount of traffic the project adds to the segment and would reduce the project impact to a less-than-significant level. Improvements to this roadway segment must be coordinated with the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-1ff: Participate in Improvements to U.S. 50 between Mather Field Road and Zinfandel Drive (Freeway Segment 27) and U.S. 50 between Sunrise Boulevard and Hazel Avenue (Freeway Segment 29). To ensure that U.S. 50 operates at an acceptable LOS between Mather Field Road and Zinfandel Drive and between Sunrise Boulevard and Hazel Avenue, the following improvements to the U.S. 50 corridor are required: ► Ramp metering must be added on the Mather Field Road and Zinfandel Drive eastbound on-ramps. ► An auxiliary lane must be constructed from Mather Field Road and Sunrise Boulevard. ► Traffic-signal timing at freeway interchanges must be coordinated with adjacent City intersections to minimize impacts of vehicle queue spillback onto U.S. 50. ► Parallel facilities to U.S. 50 must be constructed, including improvements to SR 16, extension of International Drive into and through the project site, extension of Kiefer Boulevard, construction of Easton Valley Parkway, and connectivity of International Drive to Old Placerville Road. ► HOV lanes must be extended from Sunrise Boulevard to downtown Sacramento (or, as an interim project, to Watt Avenue). ► HOV enhancements to existing interchanges must be provided, such as bypass lanes at existing metered on-ramps. Improvements to these freeway segments must be coordinated with Caltrans and the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1hh: Participate in Improvements to Sunrise Boulevard between Douglas Road and Kiefer Boulevard (Roadway Segment 33). To ensure that Sunrise Boulevard operates at an acceptable LOS between Douglas Road and Kiefer Boulevard, this roadway segment must be widened to six lanes consistent with the City's Circulation Element/Plan and CIP.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-1ii: Participate in Improvements to Sunrise Boulevard between Kiefer Boulevard and SR 16 (Roadway Segment 34). To ensure that Sunrise Boulevard operates at an acceptable LOS between Kiefer Boulevard and SR 16, this roadway segment must be widened to six lanes consistent with the City's Circulation Element/Plan and CIP.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-1jj: Participate in Improvements to Various Merge and Diverge Segments of U.S. 50. To ensure that the U.S. 50 merge and diverge areas operate at an acceptable LOS, the following improvements to the U.S. 50 corridor are required: ► Ramp metering must be added on the Mather Field Road and Zinfandel Drive eastbound on-ramps. ► An auxiliary lane must be constructed from Mather Field Road and Sunrise Boulevard. ► Traffic-signal timing at freeway interchanges must be coordinated with adjacent City intersections to minimize impacts of vehicle queue spillback onto U.S. 50. ► Parallel facilities to U.S. 50 must be constructed, including improvements to SR 16, extension of International Drive into and through the project site, extension of Kiefer Boulevard, construction of Easton Valley Parkway, and connectivity of International Drive to Old Placerville Road. ► HOV lanes must be extended from Sunrise Boulevard to downtown Sacramento (or, as an interim project, to Watt Avenue). ► HOV enhancements to existing interchanges must be provided, such as bypass lanes at existing metered on-ramps. Improvements to these merge and diverge segments of U.S. 50 must be coordinated with Caltrans and the County.	See timing listed for 3.14-1.	See enforcement listed for 3.14-1.
3.14-2: Develop Commercial Support Services and Mixed-use Development Concurrent with Housing Development, and Develop and Provide Options for Alternative Transportation Modes. The project applicant(s) for all project phases shall develop commercial and mixed-use development concurrent with housing development, to the extent feasible in light of market realities and other considerations, to internalize vehicle trips. Pedestrian and bicycle facilities shall be implemented to the satisfaction of the City Public Works Department. To further minimize impacts from the increased demand on area roadways and intersections, the project applicant(s) for all project phases shall develop and implement safe and secure bicycle parking at schools and commercial centers to promote alternative transportation uses and reduce the volume of single-occupancy vehicles using area roadways and intersections.	Before approval of improvement plans for all project phases.	City of Rancho Cordova Public Works Department.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-3a: Participate in Capital Improvements for Transit Service. The project applicant(s) for all project phases shall participate in providing transit-related services through annexation to the City's Transit-Related Services Special Tax Area and payment of the tax. Capital improvements for transit services will be part of the City's Transportation CIP and will include the construction and operation of the streetcar system, purchase of a shuttle fleet, and construction of a maintenance facility. The project's fair-share participation will be satisfied through payment of the transportation fee. Capital improvement costs for on-site ancillary facilities are not in the City Transportation CIP. To fulfill the need for on-site facilities, the project applicant(s) shall provide on-site transfer and connection facilities at appropriate locations as part of site development plans. Transfer facilities shall be provided at major arterial intersections. All transfer, fare collection, and information facilities shall be provided at land uses that are major transit transfer points or destinations. These sites include major commercial and recreational land uses.	As a condition of project approval and/or as a condition of the development agreement for all project phases.	City of Rancho Cordova Public Works Department.
3.14-3b: Coordinate with the 50 Corridor Transportation Management Association and Comply with the City of Rancho Cordova Transportation System Management Ordinance. The project applicant(s) for all project phases shall coordinate with the 50 Corridor Transportation Management Association and comply with the City of Rancho Cordova transportation system management ordinance.	Concurrent with construction for all project phases.	City of Rancho Cordova Public Works Department.
3.14-5: Require Individual Transportation Impact Studies for Alternative Land Uses in the Overflight Zone and Implement All Identified Transportation Improvements. As development occurs in the overflight zone, the project applicant(s) for any proposed alternative land use shall complete specific transportation impact studies to the satisfaction of the City's Public Works Department. Impacts shall be identified using methodologies adopted by the City or consistent with those identified in this DEIR/DEIS. Improvements identified as a result of the individual transportation impact studies shall be implemented by the project applicant(s) for all project phases.	As development applications come forth for all project phases.	City of Rancho Cordova Public Works Department.
3.14-6: Pay Fair-Share Cost of Identified Improvements that Are Not Fully Funded by the City's Fee Program. The project applicant(s) for all project phases shall provide fair-share contributions to the City's transportation impact fee program to aid in bridging the program's funding shortfall. However, ultimate funding of the improvements cannot be guaranteed (as it would require funding from other developments in the area). Project contributions to the City's transportation impact fee program shall be identified in the project's public facilities financing plan associated with Tier 2 entitlements.	As part of Tier 2 entitlements and before any physical development of the property (excluding on-site wetland fill and mitigation activities).	City of Rancho Cordova Public Works Department.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-7: Mitigation Measure Common to All Impacts under Impact 3.14-7 To avoid repetition, the information contained in the following mitigation measure applies to all other mitigation measures required under Impact 3.14-7. The project applicant(s) for all project phases shall participate in the necessary improvements identified in all of the following mitigation measures. The project's fair-share participation and the associated timing of the improvements shall be identified in Tier 2 entitlements for the project and before any Development Activity, as that term is defined in the Tier 1 Development Agreements, on the property.The mitigation monitoring and reporting program for the project will be amended to include these participation and timing details for traffic improvements. The timing and enforcement (described below) would be the same for all identified mitigation measures associated with Impact 3.14-7. Please note that the improvements described in each of the following mitigation measures have not been designed, and therefore, project-specific impacts as a result of these improvements cannot be precisely identified or quantified. If need be, site-specific impacts of the identified improvements would be assessed pursuant to CEQA requirements when specific intersection and roadway improvement plans are developed, separate from the Rio del Oro DEIR/DEIS. Any such necessary environmental review would be completed before final approval of the improvements identified in the mitigation measures. No such additional review may be necessary, however, if the effects of such improvements are consistent with what can generally be expected of such improvements.	As part of the Tier 2 entitlements and before any Development Activity, as that term is defined in the Tier 1 Development Agreements.	City of Rancho Cordova Public Works Department.
3.14-7b: Participate in Improvements to the Grant Line Road/Sunrise Boulevard Intersection (Intersection 6). To ensure that the Grant Line Road/Sunrise Boulevard intersection operates at an acceptable LOS D or better, all of the following improvements are required: ► The northbound approach must be reconfigured to consist of one left-turn lane and a shared through/right-turn lane. ► The southbound approach must be reconfigured to consist of one left-turn lane, one through lane, and two right-turn lanes with overlap right-turn signal phase. ► The eastbound approach must be reconfigured to consist of two left-turn lanes, two through lanes, and a shared through/right-turn lane. ► The westbound approach must be reconfigured to consist of one left-turn lane, two through	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
lanes, and a shared through/right-turn lane. Interim improvements to the Grant Line Road/Sunrise Boulevard intersection are contained within the Elk Grove West Vineyard Plan, with ultimate improvements contained within the *Vineyard Springs Comprehensive Plan Public Financing Plan*. These intersection improvements must be coordinated with the County.		
3.14-7c: Participate in Improvements to the Grant Line Road/Kiefer Boulevard Intersection (Intersection 7). To ensure that the Grant Line Road/Kiefer Boulevard intersection operates at an acceptable LOS D or better, all of the following improvements are required: ► A traffic signal must be installed at this intersection. The southbound approach must be reconfigured to consist of one left-turn lane, three through lanes, and one dedicated right-turn lane. ► The eastbound approach must be reconfigured to consist of one left-turn lane, one through lane, and one dedicated right-turn lane. ► The westbound approach must be reconfigured to consist of one left-turn lane, one through lane, and one right-turn lane. Improvements to this intersection must be coordinated with the County.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7d: Participate in Improvements to the Grant Line Road/Douglas Road Intersection (Intersection 8). To ensure that the Grant Line Road/Douglas Road intersection operates at an acceptable LOS D or better, a traffic signal must be installed at this intersection. Improvements to this intersection are contained within the *SunRidge Specific Plan Public Financing Plan*.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7e: Participate in Improvements to the Sunrise Boulevard/Douglas Road Intersection (Intersection 9). To improve LOS at the Sunrise Boulevard/Douglas Road intersection, all approaches must be reconfigured to consist of two left-turn lanes, three through lanes, and one right-turn lane. However, even with these improvements, this intersection would continue to operate at an unacceptable LOS. For this intersection to operate at an acceptable LOS, additional roadway	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
connectivity is required. To achieve this connectivity, the Kiefer Boulevard Extension between Rancho Cordova and Sacramento must be implemented. Additional intersection improvements could be implemented consistent with the City's Circulation Element/Plan, including partial grade separation of the intersection and/or aggressive at-grade treatments such as triple left-turn lanes, enhanced-capacity right-turn treatments, or conversion into a continuous-flow intersection. Improvements to this intersection are contained within the *SunRidge Specific Plan Public Financing Plan*, but this Public Financing Plan would not be able to fund all of the improvements described above. These intersection improvements must be coordinated with the County.		
3.14-7f: Participate in Improvements to the Mather Field Road/U.S. 50 Eastbound Ramps Intersection (Intersection 12). To ensure that the Mather Field Road/U.S. 50 eastbound ramps intersection operates at an acceptable LOS D or better, the eastbound approach must be reconfigured to include an additional right-turn lane. Improvements to this intersection are identified in the City's Circulation Element/Plan and included in the City's CIP, and must be coordinated with Caltrans.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7g: Participate in Improvements at the Mather Field Road/International Drive Intersection (Intersection 13). Southbound left-turn and westbound right-turn volumes at the Mather Field Road/International Drive intersection are substantial enough that additional lanes at this intersection would not reduce impacts at the intersection; therefore, the intersection would continue to operate at an unacceptable LOS E or LOS F. However, additional roadway connectivity in the area, through measures such as implementation of the Kiefer Boulevard Extension to Sacramento, extension of Routier Road to the south, completion of the International Drive–Old Placerville Road connection, and construction of the potential tunnel under Mather Field, has the potential to shift traffic volumes to reduce traffic impacts at the intersection. These additional roadway connectivity measures are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of these improvements would assist in reducing traffic impacts on this intersection by providing acceptable operations. Improvements to this intersection must be coordinated with the County and other regulatory agencies because of the proximity of some of these improvements to Mather Field.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-7h: Participate in Improvements to the Zinfandel Drive/International Drive Intersection (Intersection 14) Improvements must be made to improve LOS at the Zinfandel Drive/International Drive intersection. Specifically, this intersection should be reconfigured to provide three left-turn lanes, four through lanes, and one right-turn lane. Additionally, capacity enhancement is needed for the eastbound right-turn movement. These improvements would reduce the cumulative impact caused by the proposed project and alternatives under consideration by providing acceptable LOS. However, widening International Drive to four through lanes is inconsistent with the City's Circulation Element/Plan because City policy requires roadway cross sections of six lanes or fewer. To be consistent with the City's Circulation Element/Plan, aggressive at-grade improvements are required, such as partial grade separation, capacity-enhancing right-turn treatments on all approaches, or implementation of a continuous-flow intersection. Additionally, improved roadway connectivity, such as the extension of Kiefer Boulevard, International Drive–Old Placerville Road connection, and/or construction of the tunnel under Mather Field would shift traffic volumes and reduce traffic at the intersection. The additional roadway connections described above and aggressive at-grade intersection treatments are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of these improvements would assist in reducing traffic impacts on this intersection by providing acceptable operations. Improvements to this intersection must be coordinated with the County and other regulatory agencies (such as FAA) because of the proximity of some of these improvements to Mather Field.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7i: Participate in Improvements to the Zinfandel Drive/White Rock Road Intersection (Intersection 15). Improvements required to provide acceptable LOS at the Zinfandel Drive/White Rock Road intersection consist of three left-turn lanes, four through lanes, and one right-turn lane on all approaches; and capacity enhancement treatments on the westbound right-turn movement. Improvements to this intersection are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of the identified improvements would assist in reducing traffic impacts on this intersection by providing acceptable LOS. However, these	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
improvements include widening the facility to more than six lanes, which is inconsistent with the City's General Element/Plan. Alternatively, partial grade separation could be implemented consistent with the City's Circulation Element/Plan and CIP; however, aggressive at-grade treatments such as partial grade separation have not been designed, and they could have geometric and/or environmental constraints that may make the treatments infeasible.		
3.14-7j: Participate in Improvements to the Zinfandel Drive/U.S. 50 Eastbound Ramps Intersection (Intersection 16). To ensure that the Zinfandel Drive/U.S. 50 eastbound ramps intersection operates at an acceptable LOS D or better, the following improvements are required: ► The northbound approach must be reconfigured to consist of four through lanes and a shared through/right-turn lane. ► The southbound approach must be reconfigured to consist of three through lanes and a free right-turn lane. ► The eastbound approach must be reconfigured to consist of three left-turn lanes, two through lanes, and a free right-turn lane. ► The westbound approach must be reconfigured to consist of three right-turn lanes. Improvements to this intersection are identified in the City's Circulation Element/Plan and included in the City's CIP. Implementation of these improvements would assist in reducing traffic impacts on this intersection by providing acceptable operation. Intersection improvements must be coordinated with Caltrans.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7k: Participate in Improvements to the Sunrise Boulevard/White Rock Road Intersection (Intersection 18). To ensure that the Sunrise Boulevard/White Rock Road intersection operates at an acceptable LOS, grade separation must be implemented at this intersection. Some funding for intersection improvements to this intersection is identified in the *Mather Field Specific Plan Public Financing Plan* (Zinfandel Drive Extension), and grade separation of the intersection is in the City's Circulation Element/Plan and included in the City's CIP. The grade separation treatment has not been designed, however, and it could have geometric and/or environmental constraints that may make the treatment infeasible. No other feasible improvements	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
are available at this intersection to ensure that it operates at an acceptable level.		
3.14-7l: Participate in Improvements to the Sunrise Boulevard/Folsom Boulevard Intersection (Intersection 19). Improvements must be made to ensure that the Sunrise Boulevard/Folsom Boulevard intersection operates at an acceptable LOS D or better. Specifically, all of the following improvements should be made: ► The northbound approach should be reconfigured to consist of three left-turn lanes, four through lanes, and one right-turn lane. ► The southbound approach should be reconfigured to consist of three left-turn lanes, four through lanes, and one right-turn lane. ► The eastbound approach should be reconfigured to consist of two left-turn lanes, two through lanes, and one right-turn lane. ► The westbound approach should be reconfigured to consist of two left-turn lanes, one through lane, and one right-turn lane. These improvements must be coordinated with Sacramento RT. The identified improvements would provide acceptable operations at this intersection. However, they may be infeasible because of geometric constraints at this intersection caused by the grade-separated LRT tracks. No other feasible improvements are available, and there is no assurance that the required improvements would be implemented.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7m: Participate in Improvements to the Sunrise Boulevard/U.S. 50 Westbound Ramps Intersection (Intersection 21). To ensure that the Sunrise Boulevard/U.S. 50 westbound ramps intersection operates at an acceptable LOS D or better, the northbound and southbound approaches must be reconfigured to consist of three through lanes and one free (uncontrolled) right-turn lane; and the westbound approach must be reconfigured to consist of two left-turn lanes and a free right-turn lane with an adequate receiving lane on Sunrise Boulevard. Improvements to this intersection must be coordinated with Caltrans.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-7n: Participate in Improvements to the Sunrise Boulevard/Zinfandel Drive Intersection (Intersection 22). Implement grade separation at the Sunrise Boulevard/Zinfandel Drive intersection. The grade separation treatment has not been designed and it could have geometric and/or environmental constraints that may make the treatment infeasible.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7o: Participate in Improvements to the Hazel Avenue/Folsom Boulevard Intersection (Intersection 23). For the Hazel Avenue/Folsom Boulevard intersection to operate at an acceptable LOS D or better, grade separation of the intersection is required. This improvement is consistent with the City's Circulation Element/Plan; however, the grade-separation treatment has not been designed, and it could have geometric and/or environmental constraints that may make the treatment infeasible. Improvements to this intersection must be coordinated with the County.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7p: Participate in Improvements to the Hazel Avenue/U.S. 50 Eastbound Ramps Intersection (Intersection 24). To ensure that the Hazel Avenue/U.S. 50 eastbound ramps intersection operates at an acceptable LOS D, all of the following improvements are required at this interchange: ► The structure across U.S. 50 must be widened to accommodate eight lanes (four in each direction) on the structure. ► The eastbound off-ramp approach must be reconfigured to consist of three left-turn lanes, a shared left/right-turn lane, and one right turn lane. Improvements to this interchange must be coordinated with Caltrans and the County.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7q: Participate in Improvements to the Hazel Avenue/U.S. 50 Westbound Ramps Intersection (Intersection 25). Substantial improvements must be made to ensure that the Hazel Avenue/U.S. 50 westbound ramps intersection operates at an acceptable LOS D or better. Specifically, the following improvements should be made: ► The northbound approach should be reconfigured to consist of four through lanes and a free right-turn lane (this would require prohibiting northbound left turns to Tributary Point Drive).	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
► The southbound approach should be reconfigured to consist of five through lanes and a free right-turn lane. ► The eastbound approach should be reconfigured to consist of one free right-turn lane. ► The westbound approach should be reconfigured to consist of one left-turn lane, two through lanes, and one right-turn lane. However, these improvements would prohibit northbound access to development west of the intersection and may be deemed infeasible in that access must be maintained. Improvements to this intersection must be coordinated with Caltrans and the County.		
3.14-7r: Participate in Improvements to the Grant Line Road/White Rock Road Intersection (Intersection 26). To ensure that the Grant Line Road/White Rock Road intersection operates at an acceptable LOS D or better, all of the following improvements are required: ► The northbound approach must be reconfigured to consist of three left-turn lanes and three through lanes. ► The southbound approach must be reconfigured to consist of two through lanes and two right-turn lanes. ► The eastbound approach must be reconfigured to consist of two left-turn lanes and one free (uncontrolled) right-turn lane. Improvements to this intersection must be coordinated with the County.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7s: Participate in Improvements to the Sunrise Boulevard/Kiefer Boulevard Intersection (Intersection 27). To ensure that the Sunrise Boulevard/Kiefer Boulevard intersection operates at an acceptable LOS D or better, the northbound and southbound approaches must be reconfigured to consist of two left-turn lanes, three through lanes, and one right-turn lane.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7t: Participate in Improvements to the Eagles Nest Road/Kiefer Boulevard Intersection (Intersection 28). To ensure that the Eagles Nest Road/Kiefer Boulevard intersection operates at an acceptable LOS D or better, all approaches must be reconfigured to consist of one left-turn lane, two through lanes, and one right-turn lane.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-7u: Participate in Improvements to the Sunrise Boulevard/International Drive Intersection (Intersection 29). To improve LOS at the Sunrise Boulevard/International Drive intersection, the intersection must be reconfigured to consist of three left-turn lanes, three through lanes, and two right-turn lanes. However, even with these improvements, this intersection would operate at an unacceptable LOS. To further improve operations and to fully reduce the impact, aggressive at-grade improvements (such as implementation of a continuous-flow intersection) or partial grade separation is required, consistent with the City's Circulation Element/Plan and associated CIP. However, the aggressive at-grade treatments have not been designed, and they could have geometric and/or environmental constraints that may make the treatments infeasible.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7v: Participate in Improvements to the Rancho Cordova Parkway/White Rock Road Intersection (Intersection 30). Implement aggressive at-grade improvements (such as implementation of a continuous-flow intersection) or partial grade separation, consistent with the City's Circulation Element/Plan and associated CIP.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7w: Participate in Improvements to the Rancho Cordova Parkway/U.S. 50 Eastbound Ramps Intersection (Intersection 31). To ensure that the Rancho Cordova Parkway/U.S. 50 eastbound ramps intersection operates at an acceptable LOS, all of the following improvements are required: ► The northbound approach must be reconfigured to consist of two "free" right-turn lanes and two through lanes. ► The southbound approach must be reconfigured to consist of one left-turn lane and two through lanes. ► The eastbound approach must be reconfigured to consist of one shared through/left-turn lane and two "free" right-turn lanes. Improvements to this intersection must be coordinated with Caltrans.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7x: Participate in Improvements to the Douglas Road/Jaeger Road Intersection (Intersection 33). Improvements must be made to ensure that the Douglas Road/Jaeger Road intersection operates at an acceptable LOS. Specifically, all of the following improvements should	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
be made: ► The northbound approach should be reconfigured to consist of two left-turn lanes, three through lanes, and a right-turn lane. ► The southbound approach should be reconfigured to consist of two left-turn lanes, three through lanes, and a right-turn lane. ► The eastbound approach should be reconfigured to consist of two left-turn lanes, three through lanes, and one right-turn lane with right-turn capacity enhancement (such as a pork-chop island or right-turn green arrow concurrent with the southbound left-turn phase). ► The westbound approach should be reconfigured to consist of two left-turn lanes, three through lanes, and one right-turn lane.		
3.14-7y: Participate in Improvements to the Douglas Road/Americanos Boulevard Intersection (Intersection 34). To ensure that the Douglas Road/Americanos Boulevard intersection operates at an acceptable LOS D or better, a second eastbound right-turn lane must be added.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7z: Participate in Improvements to the Chrysanthy Boulevard/Sunrise Boulevard Intersection (Intersection 35). To ensure that the Chrysanthy Boulevard/Sunrise Boulevard intersection operates at an acceptable LOS, a second westbound right-turn lane must be added.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7aa: Participate in Improvements to the White Rock Road/Americanos Boulevard Intersection (Intersection 39). To ensure that the White Rock Road/Americanos Boulevard intersection operates at an acceptable LOS during the a.m. peak traffic hour, the northbound and southbound approaches must be reconfigured to consist of three left-turn lanes, two through lanes, and a shared through/right-turn lane; and the eastbound and westbound approaches must be reconfigured to consist of one left-turn lane, three through lanes, and two right-turn lanes. Improvements to this intersection must be coordinated with the County and Aerojet General Corporation (Aerojet).	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7bb: Participate in Improvements to the Hazel Avenue/Gold Country Boulevard Intersection (Intersection 40). To ensure that the Hazel Avenue/Gold Country Boulevard	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
intersection operates at an acceptable LOS, the northbound and southbound approaches must be reconfigured to consist of additional through lanes in the northbound and southbound directions. However, there are significant geographic constraints associated with additional widening of Hazel Avenue, primarily because of the existing bridge crossing of the American River just north of this intersection. Additionally, any roadway widening would require modification to the bluffs between the American River and Fair Oaks Boulevard. Improvements to this intersection must be coordinated with the County.		
3.14-7cc: Participate in Improvements to International Drive between South White Rock Road and Zinfandel Drive (Roadway Segment 6). Additional connectivity, such as completion of the Kiefer Boulevard extension into Sacramento would relieve some traffic from this roadway segment between South White Rock Road and Zinfandel Drive, but would not reduce the impact to a less-than-significant level. Improvements to this roadway segment must be coordinated with the County. The impact conclusion reached in the DEIR/DEIS is significant and unavoidable because the identified improvements would fall under the jurisdiction of the County, and neither the City nor the project applicant(s) would have control over the timing or implementation.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7dd: Participate in Improvements to Mather Field Road between Folsom Boulevard and U.S. 50 Westbound Ramps (Roadway Segment 12). Improvements must be made to ensure that Mather Field Road operates at an acceptable LOS between Folsom Boulevard and U.S. 50 westbound ramps; specifically, this roadway segment should have high-access controls.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-7ee: Participate in Improvements to Zinfandel Drive between the U.S. 50 Eastbound Ramps and White Rock Road (Roadway Segment 15). Additional connectivity, such as the completion of Kiefer Boulevard into Sacramento and the extension of Routier Road could relieve some traffic from this roadway segment from Zinfandel Drive between the U.S. 50 Eastbound Ramps and White Rock Road, but would not reduce the impact to a less-than-significant level. Improvements to this roadway segment must be coordinated with the County. Improvements to this roadway segment must be coordinated with the County. The impact conclusion reached in the DEIR/DEIS is significant and unavoidable because the identified improvements fall under the jurisdiction of the County, neither the City nor the project applicant(s) would have control over the timing or implementation of the improvements.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7jj: Participate in Improvements to Hazel Avenue between Winding Way and the U.S. 50 Westbound Ramps (Roadway Segment 23). To improve operation on Hazel Avenue between Winding Way and the U.S. 50 westbound ramps, this roadway segment must be widened to eight lanes. Improvements to this roadway segment must be coordinated with the County. The identified improvement would more than offset the impacts specifically related to the Rio del Oro project on this roadway segment. However, because of other development in the region that would substantially increase traffic levels, this roadway segment would continue to operate at an unacceptable LOS even with the capacity improvements identified to mitigate Rio del Oro impacts.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7kk: Participate in Improvements to U.S. 50 between Mather Field Road and Zinfandel Drive (Freeway Segment 27); between Sunrise Boulevard and Rancho Cordova Parkway (Freeway Segment 29); between Rancho Cordova Parkway and Hazel Avenue (Freeway Segment 30); and between Hazel Avenue and Folsom Boulevard (Freeway Segment 31). To ensure that these freeway segments operate at an acceptable LOS, all of the following improvements are required: ► Ramp metering must be implemented on the Mather Field Road and Zinfandel Drive eastbound on-ramps. ► Auxiliary lanes must be constructed from Mather Field Road, Sunrise Boulevard, and Rancho	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
Cordova Parkway. ► Traffic-signal timing at freeway interchanges must be coordinated with adjacent City intersections to minimize impacts of vehicle queue spillback onto U.S. 50. ► Parallel facilities to U.S. 50 must be constructed, including improvements to SR 16, extension of International Drive into and through the project site, extension of Kiefer Boulevard, construction of Easton Valley Parkway, and connectivity of International Drive to Old Placerville Road. ► HOV lanes must be extended from Sunrise Boulevard to downtown Sacramento (or, as an interim project, to Watt Avenue). ► HOV enhancements to existing interchanges must be provided, such as bypass lanes at existing metered on-ramps. Improvements to these freeway segments must be coordinated with Caltrans.		

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
3.14-7ll: Participate in Improvements to Sunrise Boulevard between Douglas Road and Chrysanthy Boulevard (Roadway Segment 43). Additional connectivity, such as the extensions of Chrysanthy Boulevard to Kiefer Boulevard, Jaeger Road to Grant Line Road, and Kiefer Boulevard to Sacramento has the potential to relieve traffic from this segment of Sunrise Boulevard between Douglas Road and Chrysanthy Boulevard and reduce the impact to a less-than-significant level. **Improvements to this roadway segment must be coordinated with the County.**	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7mm: Participate in Improvements to Rancho Cordova Parkway between Easton Valley Parkway and White Rock Road (Roadway Segment 47). Additional connectivity, such as the extension of Chrysanthy Boulevard to Kiefer Boulevard, the extension of Jaeger Road to Grant Line Road, the extension of Kiefer Boulevard to Sacramento, and additional connectivity through the Aerojet site has the potential to relieve traffic from this segment of Rancho Cordova Parkway between Easton Valley Parkway and White Rock Road, but would not reduce the impact to a less-than-significant level. Improvements to this roadway segment must be coordinated with the County and Aerojet.	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.
3.14-7pp: Participate in Improvements to U.S. 50 Merge, Diverge, and Weave Segments. To ensure that the U.S. 50 merge, diverge, or weave areas operate at an acceptable LOS, the following improvements to the U.S. 50 corridor are required: ► Ramp metering must be added on the Mather Field Road and Zinfandel Drive eastbound on-ramps. ► An auxiliary lane must be constructed from Mather Field Road and Sunrise Boulevard. ► Traffic-signal timing at freeway interchanges must be coordinated with adjacent City intersections to minimize impacts of vehicle queue spillback onto U.S. 50. ► Parallel facilities to U.S. 50 must be constructed, including improvements to SR 16, extension of International Drive into and through the project site, extension of Kiefer Boulevard, construction of Easton Valley Parkway, and connectivity of International Drive to Old Placerville Road. ► HOV lanes must be extended from Sunrise Boulevard to downtown Sacramento (or, in an	See timing listed for 3.14-7.	See enforcement listed for 3.14-7.

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interim project, to Watt Avenue). ► HOV enhancements to existing interchanges must be provided, such as bypass lanes at existing metered on-ramps. Improvements to these merge, diverge, and weave areas must be coordinated with Caltrans and the County.		
3.15 AIR QUALITY		
3.15-1: Implement Measures to Control Construction-Generated Air Pollutant Emissions. To reduce short-term construction emissions, the project applicant(s) for all project phases shall implement the measures described below. In addition to the measures identified below, construction operations shall comply with all applicable SMAQMD rules and regulations. ► Phase 1 of all action alternatives for Rio del Oro would result in construction-generated emissions that exceed the SMAQMD threshold of significance, even after implementation of the SMAQMD "standard construction mitigation." Therefore, the project applicant(s) shall pay SMAQMD an off-site mitigation fee for implementation of any of these alternatives for the purpose of reducing impacts to a less-than-significant level. The specific fee amounts shall be calculated when the construction emissions can be more accurately determined. This calculation would occur when an alternative has been selected, the project has been approved, and the Phase 1 improvement plans have been prepared. Calculation of fees associated with future, subsequent project phases shall be conducted before the approval of grading plans. It is estimated, based on information available at this time, that the off-site construction mitigation fees would range from $4,404,845 to $5,461,587 for development Phase 1, depending on which alternative is selected. ► The project applicant(s) for all project phases shall pay into SMAQMD's off-site construction mitigation fund to further mitigate construction-generated emissions of NO_X that exceed SMAQMD's daily emission threshold of 85 lb/day. The calculation of daily NO_X emissions is based on the 2006 cost of $14,300 to reduce 1 ton of NO_X. The final mitigation fee shall be calculated using the current SMAQMD off-site construction mitigation fee calculation methodology available and fee rate established by SMAQMD at the time of the approval of each project phase. The determination of the final mitigation fee shall be conducted in coordination with SMAQMD before any demolition or ground disturbance occurs for any	Before the approval of all grading plans and throughout project construction for all project phases.	City of Rancho Cordova Public Works and Planning Departments and Sacramento Metropolitan Air Quality Management District.

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project phase. ► Calculation of and payment of the fee for development Phase 1 and all subsequent project phases shall also be included in the Mitigation Monitoring and Reporting Program (MMRP) for the project. ► The project applicant(s) for all project phases shall reduce NO_X and visible emissions from heavy-duty diesel equipment by implementing the following measures: • A plan shall be developed for approval by the City, in consultation with SMAQMD, demonstrating that the heavy-duty (>50 hp), off-road vehicles to be used in the construction project (including owned, leased, and subcontractor vehicles) will achieve a projectwide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent ARB fleet average at the time of construction. Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, particulate-matter traps, engine retrofit technology, after-treatment products, and/or such other options as become available. • A comprehensive inventory of all off-road construction equipment equal to or greater than 50 hp that shall be used for an aggregate of 40 or more hours during any portion of project construction shall be submitted to the City and SMAQMD. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction operations occur. At least 48 hours before heavy-duty off-road equipment is used, the project applicant(s) shall provide SMAQMD with the anticipated construction timeline, including the start date, and the name and phone number of the project manager and on-site foreman. • Emissions from off-road, diesel-powered equipment used on the project site shall not exceed 40% opacity for more than 3 minutes in any 1 hour. Any equipment found to exceed 40% opacity (or Ringlemann 2.0) shall be repaired immediately, and SMAQMD shall be notified of noncompliant equipment within 48 hours of identification. A visual survey of all in-operation equipment shall be made at least weekly. A monthly summary of visual survey results shall be submitted to SMAQMD throughout the duration of the construction project, except that the monthly summary shall not be required for any 30-day period in which no construction operations occur. The monthly summary shall include the quantity and type of vehicles surveyed, as well as the dates of each survey. SMAQMD and/or other officials may conduct periodic site inspections to determine		

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Mitigation Measure	**Timing**	**Enforcement**
compliance. • Emulsified diesel or diesel catalysts shall be used on applicable heavy-duty construction equipment. • All of the above measures shall be included in all construction plans and specifications. • Payment into SMAQMD's construction mitigation fund to offset construction-generated emissions of NO_X that exceed SMAQMD's daily emission threshold of 85 lb/day shall be made. The calculation of daily NO_X emissions, for determination of offset fee mitigation, shall be conducted in coordination with SMAQMD and shall be based on the construction plan and equipment inventory to be prepared by the project representative. ► As recommended by SMAQMD, the project applicant(s) for all project phases shall reduce fugitive-dust emissions by implementing the following measures: • Dust emissions on all disturbed areas, including storage piles that are not being actively used for construction purposes, shall be effectively stabilized using water, a chemical stabilizer or suppressant, or vegetative ground cover (keeping soil moist at all times). • Dust emissions on all on- and off-site unpaved access roads shall be effectively stabilized using water or a chemical stabilizer or suppressant. • When materials are transported off-site, such materials shall be covered and effectively wetted to limit visible dust emissions, and at least 2 feet of freeboard space shall be maintained from the top of the container. • The accumulation of project-generated mud or dirt from adjacent public streets shall be limited or expeditiously removed at least once every 24 hours when operations are occurring. After materials are added to or removed from the surfaces of outdoor storage piles that have the potential for fugitive-dust emissions, such storage piles shall be effectively stabilized using sufficient water or a chemical stabilizer or suppressant. • On-site vehicle speeds on unpaved roads shall be limited to 15 mph. • Wheel washers shall be installed for all trucks and equipment exiting unpaved areas, or wheels shall be washed to remove accumulated dirt before such vehicles leave the site. • Sandbags or other erosion control measures shall be installed to prevent runoff of silt to public roadways from adjacent project areas with a slope greater than 1%.		

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• Excavation and grading activities, except soil stabilization activities, shall be suspended when winds exceed 20 mph. The extent of areas simultaneously subject to excavation and grading shall be limited to the minimum area feasible.		
3.15-2a: Implement Measures to Control Long-Term Operational (Regional) Emissions of ROG, NO_X, and PM_{10}. The project applicant(s) for all project phases shall submit a copy of the Operational Air Quality Plan developed in consultation with and approved by SMAQMD to the City. The Operational Air Quality Plan shall include measures to reduce operational air quality impacts associated with the project by a minimum of 15%, and these measures shall be included in the Rio del Oro Specific Plan. The project applicant(s) shall implement all measures included in the Operational Air Quality Plan. (The Operational Air Quality Plan is included in Appendix L of the DEIR/DEIS.)	Before approval of grading plans and through project construction, as appropriate for all project phases.	City of Rancho Cordova Public Works, Building and Safety, and Planning Departments and Sacramento Metropolitan Air Quality Management District.
3.15-2b: Locate Electrical Outlets to Support Use of Electrical Landscaping Equipment. The project applicant(s) for all project phases shall promote a reduction in residential emissions by encouraging the installation of conveniently located electrical outlets within the front, side, and rear yards of all residential structures, as appropriate, to support the use of electrical landscaping equipment.	Throughout project construction of all residential phases.	City of Rancho Cordova Planning Department.
3.15-4: Develop a Plan to Reduce Emissions and Implement Measures to Control Exposure of Sensitive Receptors to Toxic Air Emissions. The project applicant(s) for all project phases shall develop a plan to reduce the exposure of sensitive receptors to TACs from project construction and operation. The plan shall be submitted to the City for review and approval before the approval of any grading plans. With respect to project construction, the plan may include such measures as scheduling activities when the residences are the least likely to be occupied, requiring equipment to be shut off when not in use, and prohibiting heavy trucks from idling. Applicable measures shall be included in all project plans and specifications for all project phases. With respect to project operation for all project phases, the plan may include such measures as the following: ► Before the issuance of any certificates of occupancy or final inspections for on-site sensitive land uses (e.g., residences, schools) in close proximity to mining operations (i.e., within 1,000 feet), the City shall ensure that associated mining activities have concluded.	Before the approval of all grading plans and throughout project construction, where applicable for all project phases.	City of Rancho Cordova Planning Department.

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► Proposed commercial/convenience land uses (e.g., loading docks) that have the potential to emit TACs shall be located as far away as possible from existing and proposed sensitive receptors (i.e., 1,000 feet). ► When determining the exact type of facility that would occupy the proposed commercial/convenience space, the project shall take into consideration the facility's TAC-producing potential. The following additional guidelines are recommended in ARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (California Air Resources Board 2005a) and are considered to be advisory and not regulatory: ► Sensitive receptors, such as residential units and daycare centers, shall not be located in the same building as dry-cleaning operations that use perchloroethylene. Dry-cleaning operations that use perchloroethylene shall not be located within 300 feet of any sensitive receptor. A setback of 500 feet shall be provided for operations with two or more machines. Large gasoline stations (defined as facilities with a throughput of 3.6 million gallons per year or greater) and sensitive land uses shall not be sited within 300 feet of each other. Small gasoline-dispensing facilities (less than 3.6 million gallons of throughput per year) and sensitive land uses shall not be sited within 50 feet of each other.		
3.15-5: Implement Measures to Control Exposure of Sensitive Receptors to Odorous Emissions. The project applicant(s) for all project phases shall implement the following measures: ► Commercial/convenience land uses that have the potential to emit objectionable odors shall be located as far away as feasible from existing and proposed sensitive receptors. ► Delivery areas shall be located as far away as feasible from existing and proposed sensitive receptors. ► The odor-producing potential of land uses shall be considered when the exact type of facility that would occupy commercial/convenience areas is determined. ► Before approval of building permits, odor control devices shall be identified to mitigate the exposure of receptors to objectionable odors if a potentially odor-producing source is to occupy space in the commercial/convenience area. The identified odor control devices shall be installed before the issuance of certificates of occupancy for the potentially odor-producing use. The odor-producing potential of a source and control devices shall be determined in coordination with SMAQMD and based on the number of complaints associated with existing	Before the approval of building permits and certificates of occupancy for commercial uses for all project phases.	City of Rancho Cordova Building and Safety and Planning Departments.

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sources of the same nature.		
3.15-7b: Incorporate Green Building Measures into Residential Construction. The project applicant(s) for all residential phases shall participate in the GreenPoint Rated program. Each home shall be built to achieve the GreenPoint Rated label by earning a minimum of 50 total points and meeting the minimum point thresholds in specific categories: Energy (30), Indoor Air Quality/Health (5), Resources (6), and Water (9). The measures to achieve these points are currently outlined in the New Home Construction Green Building Guidelines (Build It Green 2007) and grouped into sections corresponding to the various stages of construction. The most current adopted version of the New Home Construction Green Building Guidelines shall be utilized. The measures incorporated into the project to achieve the GreenPoint Rated label may include but are not limited to the following: ► **Site:** Manage the construction process to minimize disruptions to the building site, reduce waste, and prevent pollution of air, soil, and waterways. ► **Foundation:** Incorporate recycled fly ash in concrete, using frost-protected shallow foundations in cold climates, and installing radon-mitigation measures where appropriate. ► **Landscaping:** Utilize strategies to keep pollutants out of waterways, reduce water use, promote healthy soils, create fire-safe landscaping, and reduce excessive outdoor lighting. ► **Structural Frame and Envelope:** Implement measures to address the building's structural frame, including the walls, floors, and roof, for more durable buildings that use energy and other resources more efficiently. ► **Exterior Finish:** Install siding, roofing, and decking materials that will hold up well for decades and help protect the home from moisture damage, fire, and general wear and tear. ► **Insulation:** Follow proper insulation installation techniques, and use insulation products with recycled content and low or no formaldehyde emissions. ► **Plumbing:** Design the plumbing system to reduce hot-water runs, insulate hot-water pipes, and install water-efficient toilets. ► **Heating, Ventilation, and Air Conditioning:** Utilize high-efficiency heating and cooling equipment and effective ductwork and ventilation for better indoor air quality. ► **Renewable Energy:** Pre-plumb or install solar hot water systems and pre-wire or install	Throughout project construction of all residential phases.	City of Rancho Cordova Building and Safety and Planning Departments.

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photovoltaic systems. ► **Building Performance:** Design and build high-performance homes that meet or exceed the state's building energy efficiency standards by including improved insulation, installation of energy efficient windows, installation of tankless hot-water heaters, and other measures. ► **Finishes:** Utilize healthier options for paints, trim, cabinets, and countertops that perform well and are readily available and promote environmentally preferable materials for interior finishes. ► **Flooring:** Utilize finish flooring materials that are attractive, long-lasting, and environmentally friendly. ► **Appliances:** Install high-efficiency residential appliances that can significantly cut a home's energy and water use, including dishwashers, clothes washers, and refrigerators that exceed minimum Federal efficiency standards. ► **Other:** Utilize innovative approaches to green building that go beyond the basic measures described in these guidelines.		
3.15-7c: Incorporate Green Building and Development Measures. Each increment of new development within the project site requiring a discretionary approval (e.g., proposed tentative subdivision map, conditional use permit), shall be subject to a requirement, the details of which shall be established through project-specific environmental review, that GHG emissions from t construction and operation of the increment of development at issue will be reduced by 30% from business-as-usual 2006 emissions. In determining 2006 business-as-usual emissions, the assumptions and analysis regarding traffic and operational conditions of the project used in the EIR/EIS may be utilized. For each increment of new development, the developer shall submit to the City, prior to the release of any project-specific environmental document, a proposed mitigation plan that lists the measures selected to be implemented as part of the proposed development increment and/or consideration of previously implemented measures in the specific plan area, including analysis demonstrating the associated reduction in GHG emissions. The list shall reflect the then-current state of the regulation of GHG emissions and climate change, which is expected to continue to evolve under the mandate of AB 32. The mitigation plan shall be accompanied by an analysis demonstrating why, in the developer's view, the selected measures are both feasible and efficacious. The City , in consultation with the SMAQMD, shall review the mitigation report for the applicable increment of development and shall include the proposed mitigation strategy and accompanying analysis, with	Throughout project construction of all residential phases.	City of Rancho Cordova Planning Department.

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any changes considered by City staff to be necessary and potentially feasible, as part of the project-specific environmental review for the proposed increment of new development. After receiving and considering any public input on the proposed mitigation strategy, the City shall ultimately approve the strategy (with modifications, if considered necessary and feasible) prior to granting any requested discretionary approval for that increment of development. In determining what sort of measures should appropriately be imposed by a local government under the circumstances to attain the overall, project-wide 30% emissions requirement, the City shall consider the following factors: ► The extent to which rates of GHG emissions generated by motor vehicles traveling to, from, and within the project site are projected to decrease over time as a result of regulations, policies, and/or plans that have already been adopted or may be adopted in the future by ARB or other public agency pursuant to AB 32, or by EPA; ► The extent to which mobile-source GHG emissions, which at the time of writing this EIR comprise a substantial portion of the state's GHG inventory, can also be reduced through design measures that result in trip reductions and reductions in trip length; ► The extent to which GHG emissions emitted by the mix of power generation operated by SMUD, that will serve the project site, are projected to decrease pursuant to the Renewable Portfolio Standard required by SB 1078 and SB 107, as well as any future regulations, policies, and/or plans adopted by the federal and state governments that reduce GHG emissions from power generation; ► The extent to which replacement of CCR Title 24 with the California Green Building Standards Code or other similar requirements will result in new buildings being more energy efficient and consequently more GHG efficient; ► The extent to which any stationary sources of GHG emissions that would be operated on a proposed land use (e.g., industrial) are already subject to regulations, policies, and/or plans that reduce GHG emissions, particularly any future regulations that will be developed as part of ARB's implementation of AB 32, or other pertinent regulations on stationary sources that have the indirect effect of reducing GHG emissions; ► The extent to which the feasibility of existing GHG reduction technologies may change in the future, and to which innovation in GHG reduction technologies will continue, affecting cost-benefit analyses that determine economic feasibility; and ► Whether the total costs of proposed mitigation for GHG emissions, together with other mitigation measures, required for the proposed development, are so great that a reasonably		

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prudent property owner would not proceed with the project in the face of such costs. In considering how much, and what kind of, mitigation is necessary in light of these factors, the City shall consider the following list of options, though the list is not intended to be exhaustive, as GHG reduction strategies and their respective feasibility are likely to evolve over time. These measures are derived from multiple sources including the Mitigation Measure Summary in Appendix B of the California Air Pollution Control Officer's Association (CAPCOA) white paper, CEQA & Climate Change (CAPCOA 2008), the California Attorney General's Office (2008) and the Sacramento Metropolitan Air District Draft GHG Measures (2009). **Energy Efficiency** ► Include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems). ► Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use. ► Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Use daylight as an integral part of lighting systems in all buildings. ► Install Energy Star compliant highly reflective roofing materials. ► Install light-colored "cool" pavements, and strategically located shade trees along all bicycle and pedestrian routes. Project developers should be encouraged to incorporate "green building" points into the construction and design of all projects (including additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) for which "green building" points are available. Such points may be achieved through conformity with the checklists identified by New Home Construction Green Building Guidelines available at www.builditgreen.org (which were developed to apply to residential construction, but which include measures that are also pertinent to commercial construction), or through any similar list that distinguishes specific measures targeting efficiencies in energy, resource use, or other measures that would also directly or indirectly result in GHG emission reductions. Specific efficiencies that would reduce GHG emissions shall be implemented where feasible, for all project areas including site design, landscaping, foundation, structural frame and building envelope, exterior finishing, plumbing, appliance use, insulation, heating, venting and air conditioning, building performance, use of renewable energy, finishes, and flooring. Project developers should be encouraged to incorporate any combination of the following strategies to reduce heat gain of the non-roof impervious site landscape (including roads,		

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sidewalks, courtyards, parking lots, and driveways) into the construction and design of all new (additions of 25,000 square feet of office/retail commercial) projects: ► Shaded (Within 5 years of occupancy) ► Paving materials with a Solar Reflective Index (SRI) of at least 29 ► Open grid pavement system (pavement that is less than 50% impervious and contains vegetation in the open cells) ► Parking spaces under cover (defined as underground, under deck, under roof, or under building). Any roof used to shade or cover parking should have an SRI of at least 29. ► Optional level of LEED certification, such as silver or gold which can allow for further reductions in energy consumption and GHG emissions. **Water Conservation and Efficiency** The Project includes water conservation as part of the project. In addition, the project would comply with Title 22, Chapter 32.180, "Water Use and Conservation," of the City's Municipal Code, which specifies design criteria for irrigation systems and requirements for plant selection. These requirements include but are not limited to: installation of irrigation systems that minimize overspray and runoff, use of control valves to account for different site-specific characteristics and use of rain shutoff systems, and installation of plants that are suited to the local climate and require moderate amounts of water (Sections 22.180.070 and 22.180.080). In addition, the following should be considered: ► With the exception of ornamental shade trees, use water-efficient landscapes with native, drought-resistant species in all public area and commercial landscaping. ► Install the infrastructure to use recycled water for landscape irrigation. (Part of the project) ► Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls. ► Design buildings and lots to be water-efficient. Install water-efficient fixtures and appliances. (e.g., Ultra low-flow toilets, no flow urinals etc.) ► Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces). Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces unless required to mitigate health and safety concerns. **Solid Waste Measures** Project developers should be encouraged to incorporate any combination of the following strategies:		

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► Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). ► Provide interior and exterior storage areas for recyclables and green waste at all buildings. ► Provide adequate recycling containers in public areas, including parks, school grounds, paseos, and pedestrian zones in areas of mixed-use development. ► Provide education and publicity about reducing waste and available recycling services. **Transportation and Motor Vehicles** Project developers should be encouraged to incorporate any combination of the following strategies: ► Promote ride sharing programs at employment centers (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading zones and waiting areas for ride share vehicles, and providing a web site or message board for coordinating ride sharing). ► Provide the necessary facilities and infrastructure in all land use types to encourage the use of low or zero emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations). ► At commercial land uses, all forklifts, "yard trucks," or vehicles that are predominately used on-site at non-residential land uses should be electric-powered or powered by biofuels (such as biodiesel [B100]) that are produced from waste products, or shall use other technologies that do not rely on direct fossil fuel consumption. ► Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations). ► Prioritized parking within new commercial and retail areas shall be given to electric vehicles, hybrid vehicles, and alternative fuel vehicles. ► Incorporate bicycle lanes, routes, and intersection improvements into street systems within the Specific Plan. ► For commercial land uses, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. ► For commercial land uses, provide "end-of-trip" facilities including showers, lockers, and changing space. ► Create Class II bicycle lanes and walking paths directed to the location of schools, parks and		

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other destination points. ► Construction of transit facility/amenity (bus shelters, bicycle lockers/racks, etc.) for existing public and private transit. ► Provide secure bicycle storage at public parking facilities. ► Design site and building placement to facilitate the expansion and use of alternative modes of transportation, and integrate the project site with the surrounding development and circulation pattern by creating street and pedestrian/bicycle access throughout the project site to enable trips without depending exclusively on major roads, secondary roads, or the automobile. ► Design roadways to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming features.		
Mitigation Measure 3.15-7d: Locate Electrical Outlets to Support Use of Electrical Landscaping Equipment. The project applicant(s) for all project phases containing residential uses shall promote a reduction in residential emissions by encouraging the installation of conveniently located electrical outlets within the front, side, and rear yards of all residential structures, as appropriate, to support the use of electrical landscaping equipment.	Throughout project construction of all residential phases.	City of Rancho Cordova Planning Department.
3.16 NOISE		
3.16-1: Implement Measures to Prevent Exposure of Sensitive Receptors to Temporary Construction-Generated Noise. To reduce impacts associated with noise generated during construction activities, the project applicant(s) for all project phases shall conform to the following requirements: ► Noise-generating construction operations shall be limited to the hours between 7 a.m. and 7 p.m. Monday through Friday, and between 8 a.m. and 6 p.m. on Saturday and Sunday. ► All construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses. ► All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation. ► All motorized construction equipment shall be shut down when not in use to prevent idling. ► The following measures shall be required for exterior activities that involve the use of heavy-	During all phases of project construction.	City of Rancho Cordova Planning Department.

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duty construction equipment (see Table 3.16-8) located within 800 feet of occupied noise-sensitive daytime land uses (e.g., school classrooms, childcare and convalescent care facilities, inpatient medical facilities, places of worship): • Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site). • Written notification of construction activities shall be provided to all noise-sensitive receptors located within 800 feet of construction activities. Notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification. • To the extent feasible, acoustic barriers (e.g., lead curtains, sound barriers) shall be constructed to reduce construction-generated noise levels at affected noise-sensitive land uses. The barriers shall be designed to obstruct the line of sight between the noise-sensitive land use and on-site construction equipment. When installed properly, acoustic barriers can reduce construction noise levels by approximately 8–10 dBA (EPA 1971).		
3.16-2: Implement Measures to Reduce Potential Exposure of Sensitive Receptors to Stationary Source–Generated Noise. To reduce potential long-term exposure of sensitive receptors to noise generated by City-controlled, project-related stationary noise sources from private activities, the City shall evaluate individual facilities, subdivisions, and other project elements for compliance with the City's noise ordinance and policies contained in the City General Plan. All project elements shall comply with City noise standards. The project applicant(s) for all project phases shall implement the following measures to assure maximum reduction of project interior and exterior noise levels from operational activities: ► The proposed land uses shall be designed so that on-site mechanical equipment (e.g., HVAC units, compressors, generators) and area-source operations (e.g., loading docks, parking lots, and recreational-use areas) are located as far as possible from or shielded from nearby noise-sensitive land uses. ► Residential air conditioning units shall be located a minimum of 10 feet from adjacent residential dwellings, including outdoor entertainment and relaxation areas, or shall be shielded to reduce operational noise levels at adjacent dwellings or designed to meet City noise standards. Shielding	During design review and before the approval of all improvement plans, where applicable for all project phases. For measures that the City should encourage other agencies to undertake, before the approval of final maps for all project phases for noise-generating school and park and recreation sites.	City of Rancho Cordova Building and Safety, and Planning Departments.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
may include the use of fences or partial equipment enclosures. To be effective, fences or barriers need to be continuous or solid, with very few gaps, and must block the line of sight to windows of neighboring dwellings. Achieved noise reductions from fences or barriers can vary, but typically range from approximately 5 to 10 dBA, depending on construction characteristics, height, and location. ► To the extent feasible, residential land uses located within 2,500 feet and within the direct line of sight of major noise-generating commercial and industrial land uses (e.g., loading docks, manufacturing facilities, equipment/vehicle storage and repair facilities, and material processing areas such as concrete batch plants) shall be shielded from the line of sight of these facilities by construction of a sound barrier. To be effective, fences or sound barriers need to be continuous or solid, with very few gaps, and must block the line of sight to windows of neighboring dwellings. Achieved noise reductions from fences or barriers can vary, but typically range from approximately 5 to 10 dBA, depending on construction characteristics, height, and location. The developer shall obtain the services of a professional acoustician to determine the design and location of noise barriers to be constructed. ► Dual-pane, noise-rated windows; mechanical air systems; exterior wall insulation; and other noise-reducing building materials shall be used. In addition, the City shall seek to reduce potential long-term exposure of sensitive receptors to noise generated by project-related stationary noise sources from public activities on school grounds, in neighborhood and community parks, and in open-space areas. Specifically, the City shall encourage the controlling agencies (i.e., schools and park and recreation districts) to implement measures to reduce project interior and exterior noise levels to within acceptable levels, including but not limited to the following: ► On-site landscape maintenance equipment shall be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications. ► For maintenance areas located within 500 feet of noise-sensitive land uses, the operation of on-site landscape maintenance equipment shall be limited to the least noise-sensitive periods of the day, between the hours of 7 a.m. and 7 p.m. ► Outdoor use of amplified sound systems within 500 feet of noise-sensitive land uses shall be permitted only between 7 a.m. and 10 p.m. Sunday through Thursday, and between 7 a.m. and 11 p.m. on Friday and Saturday. ► During subsequent environmental review of future project phases, the project applicant(s)		

Note: PP = Proposed Project Alternative; HD = High Density Alternative; IM = Impact Minimization Alternative; NF = No Federal Action Alternative; NP = No Project Alternative.

Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
shall demonstrate that the amphitheater and adjacent residences have been designed to reduce noise exposure to noise-sensitive uses to the maximum extent feasible. An acoustical engineer with experience in the prediction and mitigation of outdoor theater sound levels shall be consulted prior to design and construction of the proposed amphitheater and residences proposed within 1,500 feet of the amphitheater. The acoustical engineer shall identify all feasible mitigation measures available for reducing noise-related impacts to nearby noise-sensitive receptors. Mitigation measures may include, but are not limited to, orientation and location of amphitheater, construction of noise barriers, limitations on speaker orientation, limitations on noise-generation levels, and hours of activity. The project applicant(s) shall incorporate the mitigation measures into the design and operation of the amphitheater and nearby residential uses.		
3.16-5: Implement Measures to Improve Land Use Compatibility with Noise Sources. To meet City noise standards set forth in the City's General Plan and Noise Ordinance and improve compatibility between project land uses and noise sources, the project applicant(s) for all project phases shall implement the following for all project phases: ► Implement Mitigation Measure 3.16-2 described above. ► Obtain the services of a consultant (such as a licensed engineer or licensed architect) to develop noise attenuation measures for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms) that will produce a minimum composite Sound Transmission Class (STC) rating for buildings of 30 or greater, individually computed for the walls and the floor/ceiling construction of buildings, for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms). ► When tentative subdivision maps and commercial uses are proposed, the applicant(s) shall conduct a site-specific acoustical analysis to determine predicted roadway noise impacts attributable to the project, taking into account site-specific conditions (e.g., site design, location of structures, building characteristics). The acoustical analysis shall evaluate stationary- and mobile-source noise attributable to the proposed use or uses and impacts on nearby noise-sensitive land uses, in accordance with adopted City noise standards. Feasible measures shall be identified to reduce project-related noise impacts. Measures may include, but are not limited to, the following: • construction of exterior sound walls; • use of increased noise-attenuation measures in building construction (e.g., dual-pane, sound-	Before the recordation of small-lot final maps and during all project construction activities for all project phases where applicable.	City of Rancho Cordova Planning Department.

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
rated windows; exterior wall insulation); and • limiting noise-generating operational activities associated with proposed commercial land uses, including truck deliveries. In addition, to reduce impacts associated with noise generated during ongoing mining activities, the project applicant(s) for all project phases shall implement the following measures where mining activities would be located within 1,100 feet of occupied noise-sensitive daytime land uses (e.g., school classrooms, childcare and convalescent care facilities, inpatient medical facilities): ► Written notification of mining activities shall be provided to noise-sensitive receptors located within 1,100 feet of mining activities. Notification shall include anticipated hours during which mining activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted if noise levels are deemed excessive. The notification shall also include recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors). ► Occupied noise-sensitive receptors shall not be located within 1,100 feet of mining equipment/activities unless a temporary barrier is constructed in accordance with the following specifications: • The barrier shall be placed as close to the noise source or as close to the receptor as possible and shall break the line of sight between the source and receptor. • The barrier shall be constructed of three-quarter-inch Medium Density Overlay (MDO) plywood sheeting, or other acceptable material that has a surface weight of 2 pounds per square foot (lb/sf) or greater, and a demonstrated STC rating of 25 or greater as defined by American Society for Testing and Materials (ASTM) Test Method E90. • If a temporary acoustical curtain is used, the material shall be weather and abuse resistant and shall exhibit superior hanging and tear strength during construction, with a surface weight of at least 1 lb/sf. The material shall have a minimum breaking strength of 120 pounds per inch (lb/in) per Federal Test Method Standard (FTMS) 191 A-M5102 and a minimum tear strength of 30 lb/in per ASTM D117. Based on the same test procedures, the absorptive material facing shall have a minimum breaking strength of 100 lb/in and a minimum tear strength of 7 lb/in. The material shall have an STC rating of 25 or greater, based on certified sound transmission loss data taken according to ASTM Test Method E90. It shall also have a Noise Reduction Coefficient rating of 0.70 or greater, based on certified		

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
sound absorption coefficient data according to ASTM Test Method C423. • When barrier units are joined together, the mating surfaces of the barrier sides shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that will completely close the gaps, and be dense enough to attenuate noise. Furthermore, to reduce impacts associated with aircraft noise, the project applicant(s) for all project phases shall implement the following measures: ► Ensure that aviation easements are prepared before completion of final maps, and submitted with the final maps to the Department of Airports. Such an aviation easements shall acknowledge the property's location within the MAPA and shall grant the right of flight and unobstructed passage of all aircraft into and out of Mather Airport. ► Provide notification in a public report, to be prepared by the California Department of Real Estate, disclosing to prospective buyers that parcels to be purchased are located within the MAPA and that an aviation easement exists for aircraft into and out of Mather Airport. Revise relevant portions of project land use plans to be compatible with the existing noise contours if the proposed Mather Airport noise contours are not adopted. Project-related residential development within the MAPA boundaries but outside the 60-dB CNEL contour shall be subject to the following conditions before approval by the City of Rancho Cordova: ► minimum noise insulation to protect persons from excessive noise within new residential dwellings (including detached single-family dwellings) that limits noise to 45 dB CNEL with windows closed in any habitable room; ► notification in the public report prepared by the California Department of Real Estate disclosing to prospective buyers that the parcel is located within the applicable airport planning policy area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet above ground level; and ► execution and recordation with the County Recorder of avigation easements on each individual residential parcel contemplated in the development. All avigation easements recorded pursuant to this policy shall, once recorded, be copied to the Director of Airports and shall acknowledge the property location within the appropriate airport planning policy area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the appropriate airport.		

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Mitigation Monitoring and Reporting Program		
Mitigation Measure	**Timing**	**Enforcement**
Exceptions: New accessory residential dwellings on parcels zoned Agricultural, Agricultural Residential, Interim Agricultural, Interim General Agricultural, or Interim Limited Agricultural shall be exempt from the airport planning policy area's prohibitions.		

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FINAL OVERALL BACKBONE INFRASTRUCTURE PHASING

RIO DEL ORO - PHASE 5

ELLIOTT HOMES

CITY OF RANCHO CORDOVA, CALIFORNIA

FEBRUARY 16, 2022



PHASING LEGEND

REQUIRED IMPROVEMENTS PRIOR TO PARCEL 71 OCCUPANCY

* COLORED ROADWAY SEGMENTS TO INCLUDE STORM DRAIN, WATER, AND SEWER IMPROVEMENTS.

LEGEND

- PROPOSED WATER PIPE
- FIRE HYDRANT
- VALVE
- REDUCER
- BLOW OFF ASSEMBLY
- PROPOSED SEWER PIPE
- PROPOSED SEWER MANHOLE
- PROPOSED DRAIN PIPE
- PROPOSED DRAIN MANHOLE
- PROPOSED DRAIN INLET
- PROPOSED DRAIN FLARED END
- PHASING BOUNDARY

GENERAL NOTES:

1. PRIOR TO FIRST OCCUPANCY, ALL STREETS AND IMPROVEMENTS SHOWN ON THE PHASING PLAN SHALL BE FULLY CONSTRUCTED AND COMPLETED TO THE SATISFACTION OF THE CITY ENGINEER.
2. PRIOR TO FIRST OCCUPANCY, ALL APPLICABLE LANDSCAPING SHALL BE FULLY CONSTRUCTED AND COMPLETED TO THE SATISFACTION OF THE CITY ENGINEER.

OFFSITE INFRASTRUCTURE NOTES:

1. TEMPORARY WEST-BOUND LEFT-IN ONLY AT DRIVEWAY. MEDIAN TO BE CONSTRUCTED AND TURN-MOVEMENTS ELIMINATED BY CITY WITH FUTURE EXTENSION OF INTERNATIONAL DRIVE TO SUNRISE BLVD.
2. OFFSITE STORM DRAIN TO DRAINAGE CHANNEL.
3. DRAINAGE CHANNEL AND DOWNSTREAM STORMWATER SYSTEM.
4. ADJACENT TRAIL CONSTRUCTION AND LANDSCAPE TO BE CONSTRUCTED WITH PARCEL 71 ON-SITE IMPROVEMENTS.
5. FUTURE SIGNAL TO BE CONSTRUCTED WITH RANCHO CORDOVA PARKWAY EXTENSION TO RIO DEL ORO PARKWAY, OR OTHER FUTURE DEVELOPMENT IDENTIFIED BY THE CITY. ADVANCED SIGNAL/CONDUIT TO BE INSTALLED WITH PARCEL 71 ON-SITE IMPROVEMENTS.
6. ONSITE STORMWATER BASINS TO BE COMPLETED PRIOR TO OCCUPANCY OF PARCEL 71.
7. WALK CONNECTION TO OFFSITE DETENTION BASIN TRAIL.

100' 50' 0 100'

SCALE: 1" = 100'

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231 Vernon Street
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Tel 916.341.7760
Fax 916.341.7767

SHEET 1 OF 4

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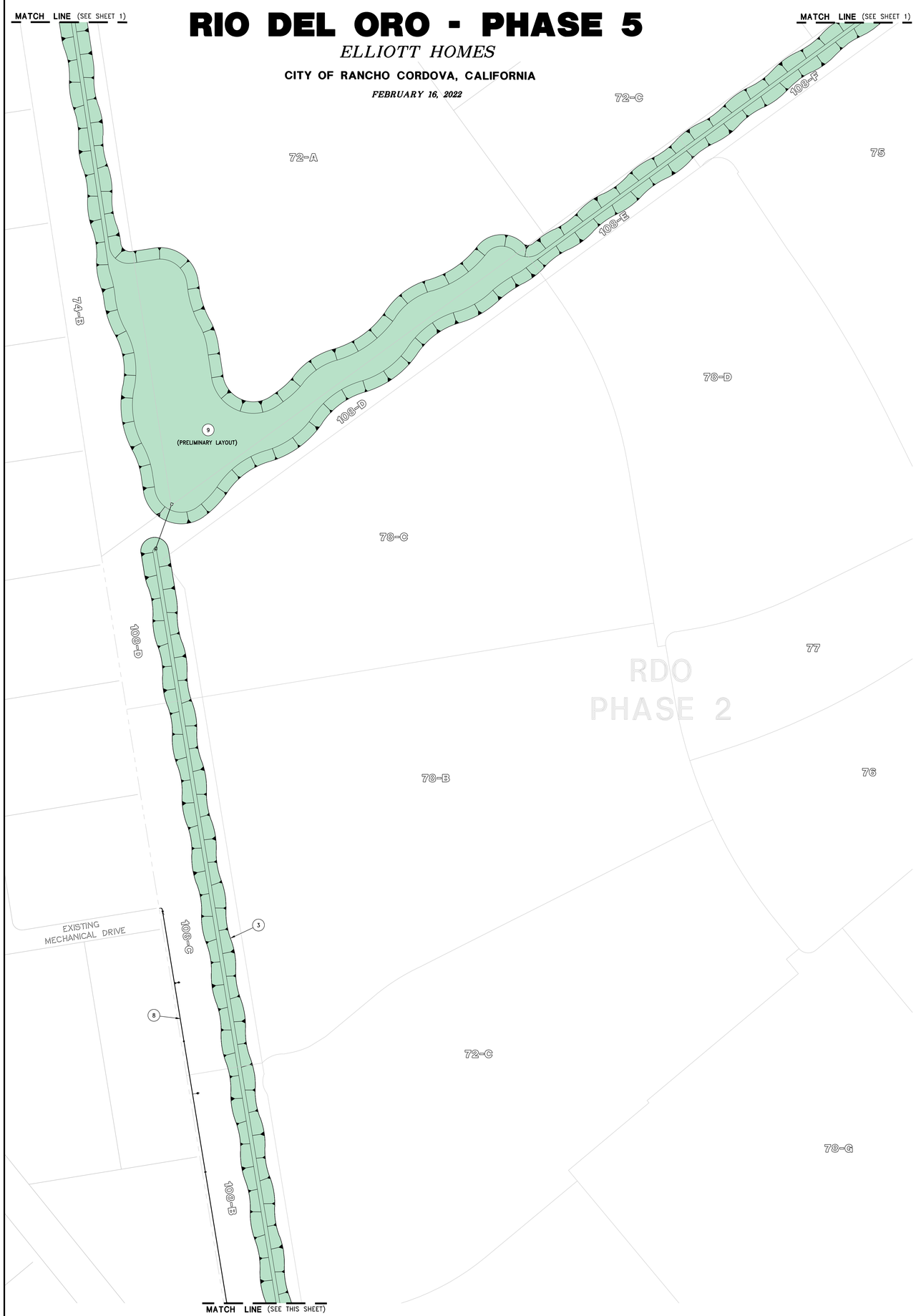
FINAL OVERALL BACKBONE INFRASTRUCTURE PHASING

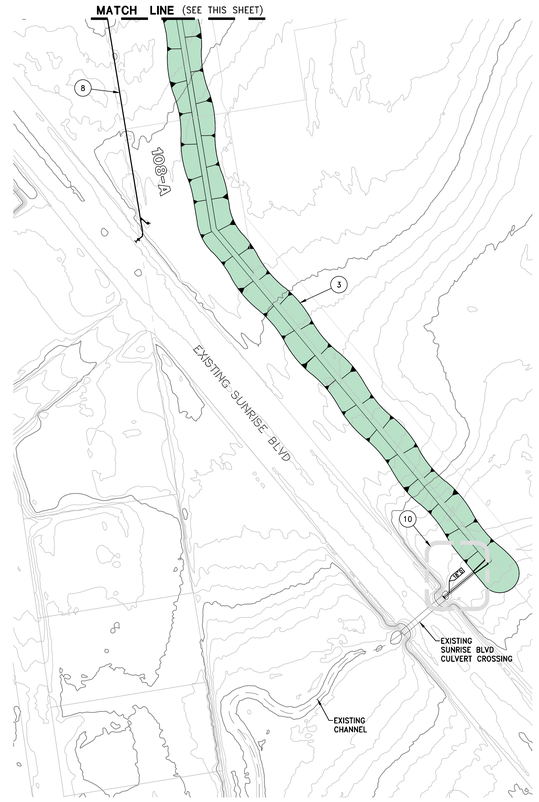
RIO DEL ORO - PHASE 5

ELLIOTT HOMES

CITY OF RANCHO CORDOVA, CALIFORNIA

FEBRUARY 16, 2022





PHASING LEGEND

REQUIRED IMPROVEMENTS PRIOR TO PARCEL 71 OCCUPANCY

* COLORED ROADWAY SEGMENTS TO INCLUDE STORM DRAIN, WATER, AND SEWER IMPROVEMENTS.

LEGEND

- 8"W — PROPOSED WATER PIPE
- FIRE HYDRANT
- VALVE
- REDUCER
- BLOW OFF ASSEMBLY
- 8"S — PROPOSED SEWER PIPE
- PROPOSED SEWER MANHOLE
- 12"D — PROPOSED DRAIN PIPE
- PROPOSED DRAIN MANHOLE
- PROPOSED DRAIN INLET
- PROPOSED DRAIN FLARED END
- PHASING BOUNDARY

GENERAL NOTES:

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2. PRIOR TO FIRST OCCUPANCY, ALL APPLICABLE LANDSCAPING SHALL BE FULLY CONSTRUCTED AND COMPLETED TO THE SATISFACTION OF THE CITY ENGINEER.

OFFSITE INFRASTRUCTURE NOTES:

(3) DRAINAGE CHANNEL AND DOWNSTREAM STORMWATER SYSTEM.

(8) OFFSITE WATER MAIN.

(9) PHASE 5 BASIN. FINAL CONFIGURATION PER PHASE 5C GRADING PLANS.

(10) DISCHARGE ELEMENTS PER RIO DEL ORO PHASE 5B/5C DRAINAGE STUDY.

100' 50' 0 100'

SCALE: 1" = 100'

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SHEET 2 OF 4

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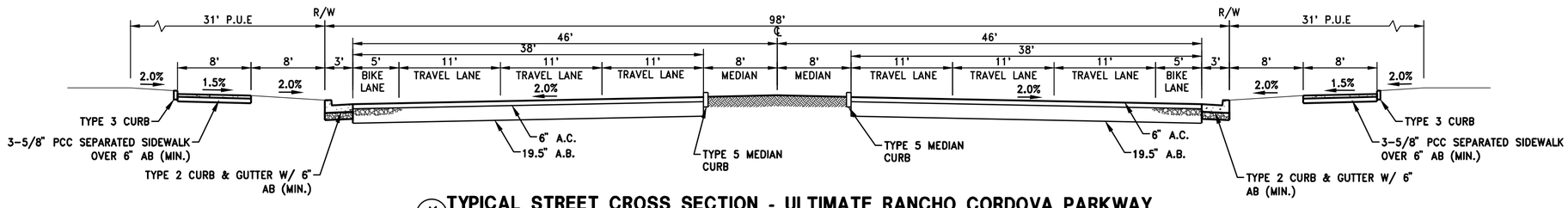
FINAL OVERALL BACKBONE INFRASTRUCTURE PHASING - CROSS SECTIONS

RIO DEL ORO - PHASE 5

ELLIOTT HOMES

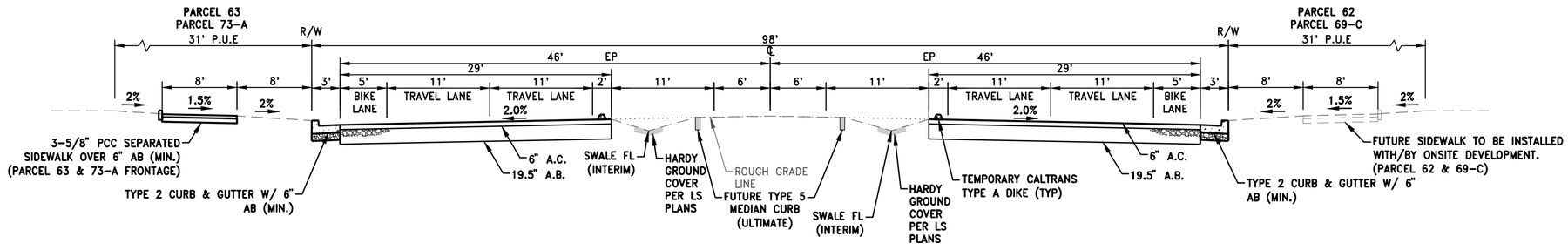
CITY OF RANCHO CORDOVA, CALIFRONIA

FEBRUARY 16, 2022



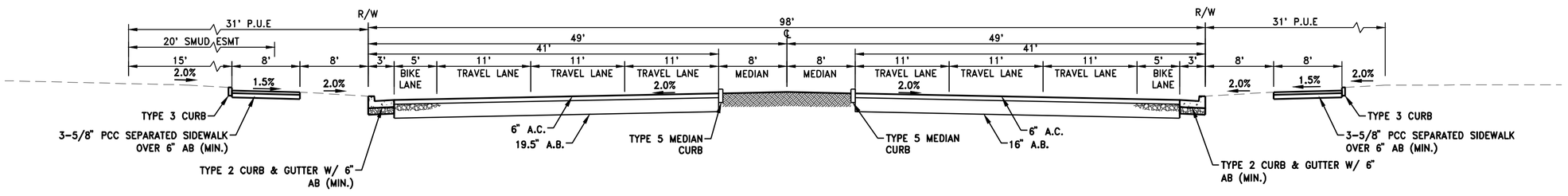
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SCALE: NOT TO SCALE — R=17.0, T.I.=10.0



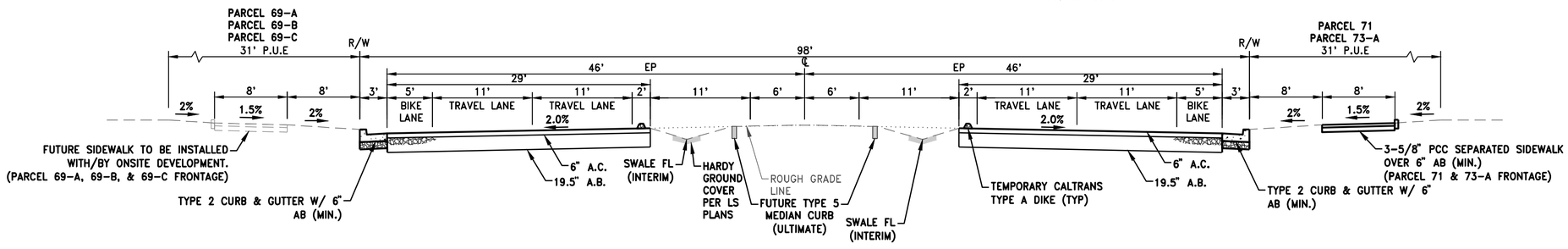
A2 **TYPICAL STREET CROSS SECTION - INTERIM RANCHO CORDOVA PARKWAY**

SCALE: NOT TO SCALE — R=17.0, T.I.=10.0



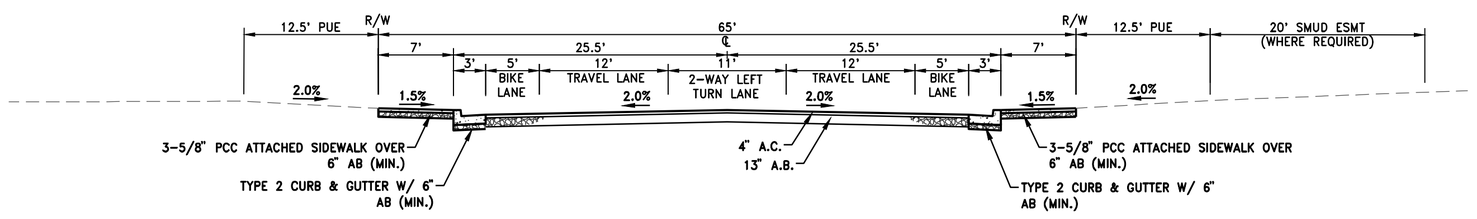
B1 **TYPICAL STREET CROSS SECTION - ULTIMATE INTERNATIONAL DRIVE**

SCALE: NOT TO SCALE — R=17.0, T.I.=10.0



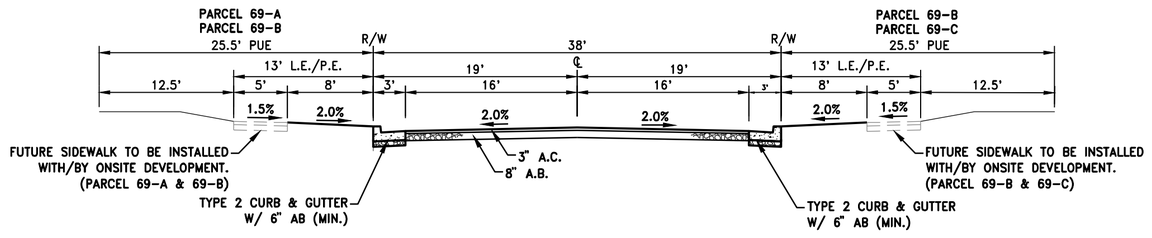
B2 **TYPICAL STREET CROSS SECTION - INTERIM INTERNATIONAL DRIVE**

SCALE: NOT TO SCALE — R=17.0, T.I.=9.0



C **TYPICAL STREET CROSS SECTION - ULTIMATE GOLD DREDGE WAY**

SCALE: NOT TO SCALE — R=17.0, T.I.=7.0



D **TYPICAL STREET CROSS SECTION - 38' R/W (PRIMARY RESIDENTIAL)**

SCALE: NOT TO SCALE

IRAZU WAY
SARAPIQUI WAY

R=17.0, T.I.=5.0

GENERAL NOTES:

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2. PRIOR TO FIRST OCCUPANCY, ALL APPLICABLE LANDSCAPING SHALL BE FULLY CONSTRUCTED AND COMPLETED TO THE SATISFACTION OF THE CITY ENGINEER.

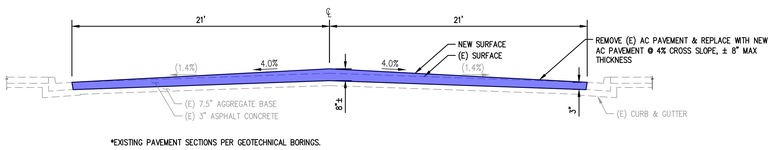
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SHEET 3 OF 4

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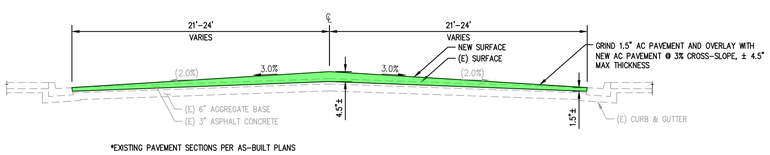


1 PLAN
SCALE: NTS



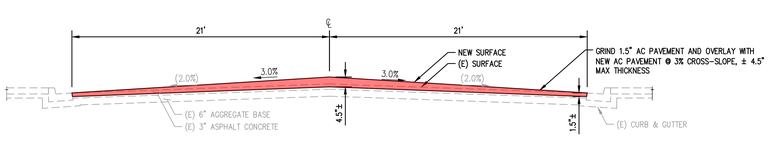
*EXISTING PAVEMENT SECTIONS PER GEOTECHNICAL BORINGS.

A GOLD DREDGE TYPICAL SECTION
SCALE: NTS



*EXISTING PAVEMENT SECTIONS PER AS-BUILT PLANS

B MECHANICAL DRIVE TYPICAL SECTION
SCALE: NTS



*EXISTING PAVEMENT SECTIONS PER AS-BUILT PLANS

C FITZGERALD / LUYUNG DRIVE TYPICAL SECTION
SCALE: NTS

PAVING SUMMARY:

FITZGERALD / GOLD DREDGE WAY: 48,300 SF	
LUYUNG DRIVE: 124,320 SF	
MECHANICAL DRIVE: 18,000 SF	

kpff
2250 Douglas Blvd, Suite 200
Roseville, CA 95661
O:916.772.7688
F:916.772.7699
www.kpff.com

Engineer's Stamp

PRELIMINARY NOT FOR CONSTRUCTION

Project

PROJECT SUNRISE
INTERNATIONAL DRIVE
RANCHO CORDOVA, CA

Sheet Title

OFFSITE PAVING EXHIBIT

REVISIONS

NO.	Description	Date	Approved

Date	01/26/22
Designed	RC
Drawn	SL
Checked	RC
JOB NO.	#2100-044
Drawing No.	

SHEET 4 OF 4

File: EX-1.dwg TABEX-1
Plotted: 1/26/22 at 11:01am By: sierma
ARCH D

ALTA ENVIRONMENTAL

August 23, 2021

Todd Chandler
Development Manager
Panattoni Development Company, Inc.

Re: EIR and Emission Reduction Measures Review
Project Sunrise, Rancho Cordova, CA

Dear Mr. Chandler,

As requested, NV5 has carried out a review of the plans for the Rancho Cordova Project Sunrise (Facility), in comparison to Rio Del Oro Air Quality and Emissions Reduction Plan (Plan). The purpose of the review is to compare project elements and to determine if the Facility would be compatible with the measures listed in the Plan. The following documents were reviewed:

- Draft Rio Del Oro Specific Plan (RDOSP), City of Rancho Cordova, California, August 2016;
- Final EIR/Environmental Impact Statement (EIR/EIS) for the Rio del Oro Specific Plan Project, June 2010;
- Rio Del Oro Air Quality and Emission Reduction Plan, November 2006, Updated January 2010;
- Conceptual Site Plan (Concept Plan) for the Project Sunrise Rancho Cordova, June 17, 2021;
- Traffic Data for Entitlement Use- CA Receive Center (Trip Generation Count), August 2, 2021;
- Rancho Cordova Project Zoning Analysis Peer Review, May 28, 2021; and
- Sacramento Metropolitan Air Quality Management District (SMAQMD) Recommended Guidance for Land Use Emission Reductions Version 4.3, February 10, 2021.

Project Sunrise Receiving Center Facility

The proposed site is located within the Plan Area of Rio Del Oro. Based on the information provided, the Facility is approximately 82 acres and is composed of a warehouse building, employee parking, trailer storage, loading docks, and stormwater management infrastructure. The building will be approximately 629,190 square feet and will include space for storage and offices. Loading docks will be located on three (3) sides of the warehouse. The proposed parking includes:

- 995 Standard Parking;
- 24 ADA Compliant Parking;
- 16 Motorcycle Parking;
- 139 Truck Dock Bays; and
- 686 Trailer Storage.

Per the Trip Generation Count, there will be 2 shifts per day, and the facility is expected to have 732 employees per shift.

The Rio Del Oro Air Quality and Emission Reduction Plan (Plan)

The City of Rancho Cordova General Plan Policy AQ.1.2.3 requires all new development projects that exceed the SMAQMD operational threshold of significance to incorporate design, construction and/or operational features that will result in a reduction in emissions when compared to an "unmitigated baseline" project. Per this requirement, the Plan provides a list of emission reduction measures that will be included in the development of the Rio Del Oro project.

As part of this review, the operational data, conditions, and measures for the proposed Facility were compared to the measures listed in the Rio Oro Plan to determine if those are in agreement with measures listed in the Plan.

Review Summary

NV5's review focused on whether the operations at the Facility would fit within the emission reduction measures listed in the Rio Del Oro Air Quality and Emission Reduction Plan and if there are any glaring environmental items that may result in a significant impact. The following provides a list of measures in the Plan as well as the proposed construction and operational conditions for the Facility and how they compare. Note: Each measure is consistent (in scope and numbering) with the menu of creditable measures for emissions reduction developed by the SMAQMD.

Measure 1 - Bicycle Lockers and Racks:

Commercial uses are required to install bicycle lockers and/or racks, which will provide employees with safe and convenient bicycle storage. The Rio del Oro Development Standards and Design Guidelines (Section 3.4.2) provide that "on-site amenities for bicycle parking shall be provided in a convenient location within each center and designed as an integral part of the site. The City Zoning Code requires one Class I or Class II bicycle storage space for every 25 vehicle parking spaces and one Class II bicycle storage space for every 33 patron vehicle spaces. This measure is intended to reduce vehicle trips and associated emissions by encouraging employees to ride bicycles to work and for services.

Proposed Facility: 51 bicycle storage spaces will be included in the proposed project. Per the Concept Plan, 1,035 employee parking spaces are provided. The number of bicycle storage spaces in comparison to the employee parking spaces, fulfills and surpasses the 1 bicycle to 25 vehicle parking space requirement. The location of bicycle racks will be clearly identified prior to City approval and per CALGreen requirements 5% of total parking space will be dedicated to covered, secured, bicycle parking.

Measure 2 - Additional Bicycle Parking Facilities:

As described above with respect to Measure 1, the City Zoning Code requires one Class I or Class II bicycle storage space for every 25 vehicle parking spaces, and one Class II bicycle storage space for every 33 patron vehicle spaces. The Rio Del Oro project has stated that it will provide an additional 20% of required Class I and Class II bicycle facilities within each commercial, office and industrial development in the plan area.

Proposed Facility: As described under Measure 1, 51 bicycle storage spaces will be included in the proposed project in addition to the 1,035 vehicle parking spaces. This results in a 23% additional bicycle parking spaces compared to the requirement set by the City Zoning code and described in Measure 1.

Measure 3 - Shower and Locker Facilities:

In accordance with the City Zoning Code Section 330-145, showers for both men and women as well as lockers shall be located at all commercial development sites with more than 200 employees, as support for bicycle use and walking. One (1) shower and eight (8) lockers with minimum dimensions of 12” x 18” x 36” shall be provided for each two hundred (200) employees. The design and/or management of the shower and locker facilities shall provide for access by both male and female employees. The shower and locker facilities must be located convenient to one another and located within 200 feet of the employee bicycle parking facilities.

Proposed Facility: One (1) large locker room with coat rack and lockers will be provided for all employees. However, the number of lockers for this facility has not been provided at the time this review is being conducted. There are no showers on the Facility. The Facility is currently not in compliance with the City Zoning Code requirements listed in Measure 3.

Measure 5 - Class I and Class II Bicycle Facilities:

The Rio del Oro project include Class II bicycle facilities as part of roadway improvements on some of the main roads in the plan area. These facilities will be constructed to City standards and will include all appropriate signage and striping. Bicycle facilities will be constructed concurrently with parallel roadways through the plan area, connecting with adjacent facilities to become part of the overall bicycle circulation network within the City.

Consistent with General Plan policies C.2.5, C.2.6, C.2.7 and associated actions, the City will require that Rio del Oro Specific Plan planned Class I and II bikeway improvements and connections be provided concurrent with associated project and roadway development to the satisfaction of the City as part of conditions of approval for tentative map applications.

Proposed Facility: The Facility is located in the Rio Del Oro project area and will benefit from the development of the bicycle facilities and the expansion of the bicycle pathways to the overall bicycle circulation network within the City of Rancho Cordova.

Measure 6 - Pedestrian Facilities:

The design of the Rio del Oro project features pathways and connections between land uses and buildings as well as to and from bus stops that are direct, shaded, and lighted. All pathways will meet ADA requirements for width, slope, grade and access. Per the City Design Guidelines, sidewalks will be designed and maintained at the following minimum width:

- 5 feet where the sidewalk is separated from the roadway
- 7 feet where the sidewalk is not separated from the roadway
- 8 feet in front of schools and commercial uses
- Sidewalks internal to the site (and not part of a public right-of-way) shall be a minimum of 6 feet in width.

As described in Section 3.2.4 of the Rio del Oro Design Guidelines, highly visible crosswalks will be constructed at each intersection, incorporating changes in paving materials to safety, visibility and aesthetics. Pedestrian pathways will be shown on improvement plans for each use. They will connect adjacent land uses and provide connections to sidewalks and other pedestrian features within the plan area. Consistent with General Plan Policy C.2.3 and associated actions, the City will require that Rio del Oro Specific Plan sidewalks, high visible crosswalks, trails and other associated planned pedestrian facilities and connections be provided concurrent with associated project and roadway development to the satisfaction of the City as part of conditions of approval for tentative map applications.

Proposed Facility: The Facility is located in the Rio Del Oro project area and will benefit from the development of pedestrian pathways within the area of the project and adjacent to the Facility.

Measure 7 - Commercial Uses Proximate (1/4 Mile) to Planned Transit (7):

The Rio del Oro project includes plans for bus stop improvements, bus turnouts and bus shelters to accommodate future extension of bus service to the project site. The exact location of these facilities will be determined in consultation with City staff and transit district staff. Bus stops will be designed in consultation with the transit service provider and are expected to include transit route information, benches, shelter and lighting, electrical connections, easements and pads. Planned transit stops within the plan area would be located nearby (within 1/4 mile) to high density

residential and employment-generating land uses along arterial roadways, and these planned uses will be able to easily access transit services when extended to the site. This planning approach is intended to achieve a nucleus of ridership sufficient to warrant transit service at 15-minute headways.

Proposed Facility: The Facility is located in the Rio Del Oro project area and will benefit from the extension of bus services as an employment-generating land use.

Measure 8 - Transportation Information Kiosk:

The Rio Del Oro project will provide a display case or kiosk within each commercial development, displaying transportation information in a prominent area accessible to employees and residents. The following is a brief list of the potential information that could be available at the kiosk:

- Carpool and Vanpool Matching
- Telecommuting Information
- Transit Schedules
- Emergency Ride Home Programs
- Park and Ride Information
- Air Quality Information
- Bicycle Discount Program
- TMA Meeting Schedule
- Newsletters

Materials within each transportation information kiosk shall be replenished and/or updated by management personnel for commercial, employment and high-density residential uses as appropriate to maintain currency.

Proposed Facility: The Facility is located in the Rio Del Oro project area and will benefit from the displays of transportation information provided as part of this measure.

Measure 17 - Preferred Carpool/Vanpool Parking:

The City Zoning Code, Section 330-144, states that at least 10 percent of employee spaces will be for carpool/vanpool purposes. The Rio del Oro project will comply with the City Zoning Code requirement for employee parking spaces, as well as carpool/vanpool spaces. Designated carpool/vanpool spaces will be located as close to employee entrances as possible. The location of carpool/vanpool spaces shall be identified on improvement plans, to the satisfaction of City staff, and shall be clearly marked when built. All carpool/vanpool spaces shall be covered, shaded, or in some other obvious way be designated as preferential.

Proposed Facility: Of the 1,035 employee parking spaces on the Facility, 83 spaces will be dedicated to carpool/vanpool parking spaces. This fulfills the CALGreen requirement to dedicate 8% of total parking space for Clean Air Vehicle/Vanpool/EV. However, the proposed number of

dedicated carpool/vanpool spaces is slightly less than 10% of the total employee parking spaces at this time and therefore does not comply with the City Zoning code or the Rio Del Oro Plan.

Measure 21 - Parking Lot Design:

Surface parking lots utilized by non-residential development within the project will include clearly marked and shaded pedestrian pathways between transit facilities and business entrances. The Rio del Oro Design Guidelines Section 3.4.2.8 provide that surface parking lots shall be designed with clear visible access ways to major building entries and shall contain landscaped areas with large shade trees to provide coverage. The Design Guidelines further require a green landscape buffer between parking areas and pedestrian ways. Pedestrian pathways shall be designed to minimize conflicts with vehicular traffic through the use of measures such as changes in paving and lighting to delineate a pedestrian path. Pathways may utilize tree cover or structures for shading purposes, as appropriate. Pedestrian pathways will be shown on improvement plans for each commercial use prior to City approval.

Proposed Facility: The parking lot design aspects were not reviewed as part of this review process. Rio Del Oro design guidelines including parking lot design requirements shall be taken into consideration prior to the construction of the Facility to ensure compliance with the Plan.

Measure 30 - Mixed Use within a Single Site:

The Rio del Oro project includes a mix of land zoned for commercial uses and multi-family land uses within close proximity, providing at least 3 of the following on-site and/or within 1/4 mile: Residential Development, Retail Development, Personal Services, Open Space, Office. Approximately 76% of the plan area is within a 1/4 mile walking distance from parks, open space, commercial and office/light industrial employment areas.

Proposed Facility: As an employment area in an Industrial Park Zone in the Rio Del Oro project area, the Facility and its employees can benefit from this measure.

Measure 32 - Bicycle and Pedestrian Paths:

The design of the Rio del Oro project features pathways and connections between land uses and buildings as well as to and from bus stops that are direct, shaded, and lighted as appropriate. All pathways will meet ADA requirements for width, slope, grade and access, and shall be designed in accordance with City Design Guidelines 2:20 to 2:21, which provide for a linked system of bicycle paths through the plan area by:

- Direct connections to regional bicycle systems (streets with bike lanes, open spaces with bike paths, etc.)

- Bicycle routes shall continue to the property boundary to connect to existing systems on adjacent development or to allow future connections when adjacent properties develop
- Provide bicycle facilities and part of roadways/driveways with painted lanes and signage or provide a separate bicycle system

Pedestrian and bicycle pathways will connect adjacent land uses and provide connections to sidewalks and other features within the plan area

Proposed Facility: The Facility is located in the Rio Del Oro project area and will benefit from the development and expansion of bicycle and pedestrian paths as detailed in this measure.

Measure 33 - Elimination of Barriers:

The complete elimination of barriers is not practical in a large mixed-use project such as Rio Del Oro, due to the wide variety of land uses. However, in providing a mix of uses within close proximity, greater opportunities are created to promote non-vehicular use. It is understood that barriers such as walls, fences and berms will be necessary in some areas to provide for security, noise attenuation, to maintain compatibility between uses and for aesthetic enhancements.

The key is to ensure that the development pattern facilitates easy access between uses. The following design techniques shall be incorporated into the layout of residential and non-residential sites.

- Placement of physical barriers between compatible land uses, such as walls and fences, shall be limited.
- Residential subdivisions or housing site layouts shall provide a pedestrian/ bicycle access connection to any adjacent non-residential or public/quasi-public use.
- The site design for all parcels shall incorporate a direct on-site connection to an adjacent pedestrian or bicycle facility.

As identified in the Rio Del Oro Design Guidelines and as required by the Rancho Cordova Open Space Standards, extensive pedestrian access to open space, parks and neighboring residential and nonresidential uses is required, and the use of walls or other barriers that preclude connection between uses is limited. Project design will create meaningful public spaces and buildings that form a dialogue between uses and promote interactions. The intent of this design feature is to allow pedestrian and bicycle circulation to occur away from public streets as appropriate, and to increase direct internal connectivity. This is contrast to typical suburban site designs where each building or development is sealed off by curbs, walls, fences or other barriers from its neighbors.

The City will condition (consistent with the policy provisions of the General Plan Urban Design Element) subsequent non-residential development that no parcel perimeter walls (except for noise attenuation) or building orientation shall be included in site design without the provision of pedestrian and bicycle access for adjoining residential uses.

Proposed Facility: The Facility design aspects were not reviewed as part of this review process. Rancho Cordova standards as well as Rio Del Oro design guidelines shall be taken into consideration prior to the construction of the Facility to ensure compliance with the Plan requirements.

Measure 42 - Energy Star Roofs:

Rio Del Oro Air Quality and Emission Reduction Plan states that the project will install Energy Star labeled roof materials that meet an ASTM emissivity rating of 0.75 or higher.

Proposed Facility: The roofing products that are to be used on the Facility will exceed the emissivity rating of 0.75. Compliance with this measure will require documentation confirming that the products installed are Energy Star certified and shall be verified by a site review and/or consultation with the lead agency.

Measure 43 – Exceed Title 24:

Rio Del Oro Air Quality and Emission Reduction Plan Measure 43 and SMAQMD Guidance for Land Use Emission Reductions Measure BE-1 state that the project shall reduce building envelope energy efficiency standards beyond California's Title 24. This reduces building electricity use and building natural gas use and associated emissions. To qualify for this measure, the proponent must agree to exceed the Title 24 standard at the time of project approval by a certain percentage.

Proposed Facility: The Facility is expected to exceed Title 24 requirements by about 20%. Implementation of this measure shall be verified by review and approval of a Title 24 compliance sheet by the lead agency.

Measure LE-1 – Install High Efficiency Lighting:

SMAQMD Guidance for Land Use Emission Reductions Measure LE-1, recommends the proponent install higher efficiency lighting in public areas, such as streetlights, outdoor stairwells, pedestrian pathways, parks, parking lots, other exterior lighting and around public buildings.

Proposed Facility: High efficiency light fixtures will be installed at the Facility and the project area.

Measure LUT-5 - Transit Accessibility:

SMAQMD Guidance for Land Use Emission Reductions states that locating a project with high density near transit will facilitate the use of transit by people traveling to or from the project site. The use of transit results in a mode shift and therefore reduced VMT. The project description should include, at a minimum, the following design features:

- A transit station/stop with high-quality, high-frequency bus service located within a 5-10-minute walk (or roughly ¼ mile from majority of development), and/or
- A rail station located within a 20-minute walk (or roughly ½ mile from station majority of development)
- Fast, frequent, and reliable transit service connecting to a high percentage of regional destinations

Proposed Facility: At the time this review is being conducted, a light rail transit station is located to the north of the proposed Facility. The closest available transit route is Route 175 outside of the project area. Due to the lack of development at the project area, there is no immediate available transit routes by the Facility at this time.

Measure TRT-1&2 – Implement Trip Reduction Program:

SMAQMD Guidance for Land Use Emission Reductions states that Research and SMAQMD experience suggest providing commute trip reduction programs increases sustainable mode share for the commute which results in decrease in vehicle miles traveled. A Transportation Management Association (TMA) is a formally incorporated organization applying carefully selected approaches to facilitate the low and zero-emission movement of people within an area. To successfully achieve the emission reductions assumed in an Air Quality Mitigation Plan (AQMP) a TMA must provide a minimum level of organization and specific Transportation Demand Management (TDM) services. Services may include but are not limited to:

- Guaranteed Ride Home Program
- Trip Planning Assistance
- Bike Support
- Walk/Pedestrian Support
- Employee Transportation Coordinator Support

Proposed Facility: The following is some of the strategies that the proponent is planning to implement in order to reduce traffic and satisfy TDM requirements:

- Carpool Program: If available, the employer will partner with the local Transportation Management Organization (TMO) or transit agency to provide a carpool matching tool to help employees find a carpool partner.
- Guaranteed Ride Home Program: The employer will implement a GRH program, which will provide employees who are utilizing drive alone alternatives with a guaranteed ride home should their alternative commuting option fall through. This guaranteed ride home will be provided through app-based ride-sharing services.
- Pre-tax Commuter Benefits.
- Transit Service: The tenant will engage with the local transit agency to request bus service to the site.

- Transportation Coordinator: The employer will designate a Transportation Coordinator (TC) in charge of implementing and promoting commuter programs on-site
- Employee Notification: Each employee at the Facility will be provided information about commute options and amenities available to them. Information will be provided via the benefits website, new hire orientations, newsletters, all-hands meetings, and / or on TV monitors at the site. The goal is to encourage employees to actively pursue commuting alternatives by providing them easy access to materials, information, and resources.
- Information Boards: The Transportation Coordinator will post employee commute information on a bulletin board, TV monitors, and / or flyers posted in the break room or other high-profile location.
- Transportation Fair: If available, employer will partner with the local TMO and / or transit agency to host onsite transportation fairs and promote commute alternatives.

The feasibility of the items listed above is dependent on the availability of local TMAs and similar programs as well as the development of the area surrounding the Facility and lastly the approval of the proponent, therefore the compliance of the Facility with this measure cannot be determined at this time. Measure 51 of the Rio Del Oro Air Quality and Emission Reduction Plan indicates that the project intends to join together with an existing TMA already operating in the area, known as the Folsom/El Dorado /Cordova TMA.

Conclusion

As mentioned above, the proposed site is located within the Plan Area and therefore is included in the RDOSP Project EIR. After the review of the site-specific information provided by the client, NV5 has determined that the Facility's proposed plans comply with emission reduction measures regarding: bicycle parking facilities, energy star roofing material, building efficiency exceeding Title 24 requirement provided in Rio Del Oro Air Quality and Emission Reduction Plan. It should be noted that compliance with these measures will require documentation and will be verified by the lead agency.

The parking lot design aspects were not reviewed as part of this review process. Rio Del Oro design guidelines including parking lot design requirements shall be taken into consideration prior to the construction of the Facility to ensure compliance with the Plan. See Measure 21 above for more information.

Rancho Cordova standards as well as Rio Del Oro design guidelines require elimination of unnecessary barriers to promote non-vehicular use. The Facility design aspects were not reviewed as part of this review process. This must be taken into consideration prior to the construction of the Facility to ensure compliance with the Plan requirements. See Measure 33 above for more information.

The Facility's plan at this time does not comply with Measure 3 listed in Rio Del Oro Air Quality and Emission Reduction Plan, requiring shower facilities for employees. Furthermore, under this measure, eight (8) lockers need to be provided for every 200 employees. The number of lockers for this facility has not been provided, therefore compliance with this segment of Measure 3 cannot be determined at this time. Additionally, the Facility's current plan does not comply with Measure 17, requiring 10% of total employee parking spaces to be dedicated to carpools/vanpools. The measures pertinent to transportation, such as proximity to easily available and reliable transit, and TMA membership are other measures that need to be addressed prior to project development with the stakeholders as well as the City in order to ensure compliance. The proposed site will then be determined to be consistent with the Specific Plan and the City's General Plan, and therefore no further Air Quality and GHG study is expected to be required.

No additional issues that would affect the feasibility of the Facility have been identified during this review.

If you have any questions, please contact Tina Darjazanie at (310) 415-4784 or by email at tina.darjazanie@nv5.com.

For and on behalf of NV5-Alta,



Tina Darjazanie

Project Manager

ATTACHMENT E

GEOTECHNICAL PEER REVIEW

Geosyntec consultants

900 Broken Sound Parkway NW, Suite 200
Boca Raton, Florida 33487
PH 561.995.0900
www.geosyntec.com

Memorandum

Date:	July 27, 2021
To:	Todd Chandler of Panattoni Development Company, LLC
From:	Jerko Kocijan, Ph.D., P.E., G.E., Geosyntec Consultants, Los Angeles, CA
Copies to:	Elaina J. Modlin, P.E., Geosyntec Consultants
Subject:	Peer Review of DRAFT Geotechnical Engineering Study Proposed Project Sunrise (GEN 4.3 IXD Facility) Rancho Cordova, California

OVERVIEW AND SUMMARY OF FINDINGS

Geosyntec Consultants, Inc. (Geosyntec) was asked by Panattoni Development Company, LLC (PDC) on behalf of Amazon.com Services, Inc. (Amazon) to perform a peer review of the Geotechnical Engineering Study (Report) prepared by Youngdahl Consulting Group, Inc. (YCG) for a proposed warehouse/distribution facility to be located at the terminus of Gold Dredge Way in Ranch Cordova, California (Site).

The following documents were provided for our review:

- Geotechnical Engineering Study (Report) for GEN 4.3 IXD Facility, Rancho Cordova, California by Youngdahl Consulting Group, Inc. dated 22 June 2021; and
- Project Sunrise Site Concept Plan Scheme 12 Drawing No. EX12, Rancho Cordova, California by KPFF Consulting Engineers for Panattoni dated 18 June 2021.

Based on review of the Report the proposed facility will consist of about 650,000 square feet (sf) warehouse/distribution facility and associated parking and trailer storage. YCG anticipates that the building will consist of concrete tilt-up exterior walls, a concrete slab-on-grade floor, and a shallow footing foundation.

YCG was contracted by Elliot Homes, Inc. (Elliot Homes) to conduct a subsurface investigation program to supplement existing investigation data and provide geotechnical engineering recommendations to guide the design and construction of the foundations, slabs, and pavements for the potential development of the Site. Geosyntec has peer reviewed the Report by YCG listed above (YCG, 2021) and has prepared this memorandum to document the findings from our review.

The peer review, comments, and recommendations presented in this memorandum are based on the data presented in the Report. The Report appears to generally address the scope of work requested by Elliott Homes, Inc. for the proposed facility development. Geosyntec generally agrees with the recommendations made in the Report that overexcavation and replacement can be used as the means to prepare the site for development, following which shallow foundation system may be an acceptable approach to support the proposed structure. However, there are several key items identified during the review of the Report that should be taken into account when selecting path forward for this development:

- The Report states that "Due to the non-uniform nature of soils, other geotechnical issues may become more apparent during grading operations which are not listed above." Considering that no new explorations have been performed for this study (i.e., YCG relied on existing exploration only) and that existing exploration coverage is extremely limited within the proposed building footprint, the proposed approach appears to leave high level of risk for surprises during construction.
- The site is underlined by remnants of historical mining operations. The Report recommends removal of mining operations remnants and provides preliminary excavation depths. The excavation depth of 25 feet was preliminarily recommended for the building footprint. However, summary of exploration on Figure A-2 indicates depth of slickens (historical mining operation remnants) of 33 feet in Boring D-2 and 29 feet in Boring BA-10 (a couple of deeper borings adjacent to building footprint area). It is unclear why excavation depth of 25 feet was selected. From this information it is not clear if the intent is to leave some of the mining remnants material in place or remove all of it.
- The Report recommends lateral extent of excavation of 10 feet laterally from the building envelope. It is our experience that lateral extent of remedial excavation should extend laterally at the bottom of excavation a minimum distance equal to the depth of excavation. This extent is typically measured from the outside edge of the footings.
- The Report only recommends partial excavation of mining operation remnants under the parking areas. This approach may result in significant differential settlement in the transition area between fully overexcavated and partially overexcavated mining material remnants.

Geosyntec's peer review comments were prepared in accordance with generally accepted geotechnical engineering principles and practices. The applicability of the Report and this peer review document should be re-evaluated if significant changes were to occur during the final design of the warehouse.

ORGANIZATION OF THIS MEMORANDUM

This memorandum has been organized to present the following: (i) evaluation of the scope of geotechnical services; (ii) review of available information; (iii) subsurface investigation; (iv) subsurface conditions; (iv) Geosyntec's peer review of geotechnical recommendations; (v) conclusions and limitations; and (vi) references.

EVALUATION OF THE SCOPE OF GEOTECHNICAL SERVICES

The geotechnical engineering services performed by YCG were intended to provide geotechnical engineering recommendations to guide the design and construction of the foundations, slabs, and pavements for the development of the Site.

Based on experience with similar projects, Geosyntec will evaluate whether the Report, at a minimum, addresses the following:

- feasibility of a shallow foundation system to support the proposed facility, and, if required, suitability of mitigation techniques that enable the use of the proposed foundations;
- foundation design parameters and slab-on-grade support recommendations;
- seismic design parameters;
- earthwork recommendations including site preparation, fill placement, excavation, suitability of soils for fill materials, compaction, and slopes;
- estimates of building settlements considering grading and building loads;
- design recommendations for retaining walls and other below-grade structures;
- storm water management; and
- pavement design and construction recommendations.

The following sections provide a description of the work performed by YCG followed by Geosyntec's evaluation of the design recommendations.

REVIEW OF AVAILABLE INFORMATION

According to the Report, YCG performed a site reconnaissance, reviewed available geologic literature, historical aerials, and previous exploration data.

Below is a summary of their main findings:

- The Site is currently being used for aggregate mining. The Site is located at the east terminus of Gold Dredge Way. The study area encompasses approximately 80 acres. Industrial development and a large stormwater basin are located immediately east of the project with the remaining surrounding area generally undeveloped.

- The Site has been used for dredge mining operations since at least 1957 according to YCG's review of historical aerial photographs. Floating dredgers and a single stack were used resulting in rows of coarse material (i.e., tailing) and fine materials (i.e., slickens). The slickens are deposits left from the pond dredge operation. The tailings have been mined for aggregate materials throughout a majority of the Site. YCG reports that it does not appear that mitigation measures to address the historic mining operations have been performed to make it suitable for improvements and development.

- Elevation data was not provided in the Report. YCG does report that relative site elevations difference across the site vary on the order of 10 to 15 feet in some locations as a result of the dredge piles and mining activities.

- According to YCG's review of previous subsurface studies, including test pits, borings, and cone penetration testing (CPT), the appears to have 3 distinct soil areas including native, tailings deposits, and slickens deposits. YCG notes that this is discernable from well defined aerial images. Native grades are present at the north end of the Site only. The remaining portions of the Site are evidently covered with tailings or slickens deposits or other aggregate mining byproducts. Native grade generally consists of sandy gravels with silt and are considered to be relatively dense. YCG reports that the thickness of these materials is not specifically known but are estimated to extend 50 or more feet bgs.

- The depth of the mined area is estimated to be approximately 25 to 30 feet bgs in some locations. The tailings areas are generally flat and slightly above the slickens. Tailings are generally medium dense sands and gravels. Surface slickens materials are generally clay and silts. Slickens deposits are on the other of 100 to 150 feet wide and tailings are on the order of 300 feet wide.

- Based on YCG's review of the California Department of Water Resources, within ½-mile radius of the Site, groundwater has varied from elevation 17 to 132 feet MSL. YCG anticipates that groundwater is relatively deep and will not impact development. However, they noted that the shallow depth to cemented soils could lead to subsurface perched water conditions.

- According to YCG's review of the Geologic Map of the Sacramento Quadrangle by Gutierrez (2011), the site is underlain by Pleistocene to Holocene Alluvium. This consists

of undivided alluvium consisting of flat, relatively undissected fan, terrace, basin deposits, and small active streams.

- The Report does not reference the presence or absence of underground utilities.
- The Site is not located in an Alquist-Priolo Zone and no known faults run through the Site.

SUBSURFACE INVESTIGATION PROGRAM

According to the Report, YCG performed field investigations at the Site and neighboring sites in 2003, 2005, and 2018. These investigations are supplemented with investigations performed at the Site and neighboring parcels by Wallace, Kuhl & Associates, Inc. (WKA). WKA excavated nine test pits and one boring at or adjacent the Site during their investigation in 1997. YGC excavated six borings and two test pits at or adjacent the Site during their October 2003 investigation. YCG excavated seven test pits and four borings (one within the Site area) for the neighboring stormwater basin area during their June 2005 investigation. YCG performed four borings and four CPTs at or adjacent the Site during their latest field investigation in 2018. A summary of the investigations are presented below.

- 2 test pits (TP-18 and TP-13) were completed within the building footprint for a frequency of 1 exploration per 325,000 SF. This is significantly less than the frequency recommended by the BTS Diligence Guidelines suggesting one exploration per 20,000 SF. The test pits within the building footprint were excavated to a depth of 16 feet bgs, which is shallow considering the fact that excavation of 25 feet is recommended in that area. Deeper borings BA-10, B-3, and D-2 are within a 100 to 300-foot radius of the building footprint and appear to be used for extrapolating subsurface conditions beneath the proposed building. However, due to the historical mining activities at the Site, there is a greater potential for variable subsurface conditions that may need to be further site-specific explorations before final design.
- 2 test pits (TP-12 & TP-21), 5 borings (D-2, BA-2, BA-10, B-11, and B-3), and one CPT (CPT-1) were completed within the proposed pavement area to depths range between approximately 16 and 70 feet bgs.
- 15 test pits, 8 borings, and 3 CPTs were completed in neighboring properties within a range of 10 to 1000 feet from the Site boundary.
- In-situ standard penetration tests (SPT) were performed to assess density of subsurface materials within the pavement area, however not within the building footprint. Penetration resistance is indicated on the boring logs (BA-2, BA-10, and BA-11) as blows per foot. Based on review of the boring logs within the Site boundary, stiff to very stiff soils were

encountered to depths of 25 feet, with the exception of a soft to medium stiff layer between 15 and 20 feet bgs in BA-10.

Representative soil samples were recovered for visual classification/description from three of the explorations performed within the Site boundary. Samples were sent for laboratory testing that included direct shear, particle size distribution, resistance value, unconfined compressive strength, #200 sieve wash, Atterberg Limits, 1-D consolidation, specific gravity, and maximum dry density/optimum moisture.

SUBSURFACE CONDITIONS

According to the Report and Geosyntec's review of the geotechnical investigations, the general subsurface stratigraphy throughout the Site can be described as following:

- *Tailings:* The tailings deposits were previously tall piles of rounded cobbles, but most have been mined during recent years and tailings areas are now generally flat and slightly elevated above the slickens. These materials are generally a mixture of sands and gravels in a medium dense condition.
- *Slickens:* The slickens materials are generally clays and silts with increasing sand content with depth. Based on our review of Figure A-2 in the Report, the depth of slickens at the Site range between 23 and 33 feet bgs. Explorations within the building footprint were not advanced deep enough to estimate the depth of slickens. However, YCG states in the Report that the mined area is estimated to have reached 25 to 30 feet bgs. This is somewhat inconsistent with Figure A-2 in the Report, which shows depths of slickens encountered as deep as 33 feet bgs. Additionally, considering there are not surface elevation data for boring locations, it is challenging to compare depths at various locations to assess the bottom elevation of slickens.
- *Native*: The native soils are generally reported to consist of sandy gravels with silt. The Report estimates that these materials extend 50 or more feet below grade. Native grade is exposed at the ground surface in the northeast corner of the Site.

YCG Report indicates that groundwater was not observed in any of the explorations. YCG anticipates that groundwater is relatively deep and will not impact development. However, they noted that the shallow depth to cemented soils could lead to subsurface perched water conditions.

PEER REVIEW OF GEOTECHNICAL RECOMMENDATIONS

The following are Geosyntec's review comments of the geotechnical assessment and recommendations provided in the Report. Emphasis was placed on evaluating that the minimum set of guidelines described in the first section of this memorandum were addressed.

- *Feasibility of a shallow foundation system and Grading Recommendations*: The Report indicates that the proposed building could be supported on shallow foundation system, provided the Site is prepared in accordance with the site grading and earthwork improvements recommendations provided in Section 6 of the Report. YCG recognizes the presence of loose/soft soils and mine deposits associated with the historic mining operations at the Site as a major design constraint. YCG presents a preliminary overexcavation and recompaction site plan on Figure D-1 in the Report, suggesting unsuitable mining deposits and soft/loose soils in the upper 25-30 feet of subsurface may need to be removed and backfilled with engineered fill. For the building area, YCG recommends that all existing fills within 10 feet laterally of the building should be overexcavated down to firm native soils. Geosyntec agrees with the general approach to overexcavate and replace the slickens soils. However, we are of opinion that the available subsurface data is not sufficient to adequately predict necessary depth of overexcavation. Furthermore, it is our experience that lateral extent of remedial excavation should extend laterally at the bottom of excavation a minimum distance equal to the depth of excavation. This extent is typically measured from the outside edge of the footings.

- *Foundation design parameters and load induced settlements:* YCG indicates that shallow should be a minimum of 15 inches wide and founded a minimum depth of 18 inches below the lowest adjacent soil grade. Isolated pad foundations should be a minimum of 24 inches. The Report indicated that bearing pressure 2,100 pounds per square feet (psf) and 2,500 psf could be used for design of footings with dead load and dead plus live load, respectively. These foundation recommendations are provided on the basis that footings bear on engineered fill or firm native soil. YCG indicates that if the recommendations outlined in the Report are followed, then the expected total settlement of less than 1 inch and ½ inch of differential settlement are anticipated. Geosyntec generally agrees with the recommendations, however, in our experience, higher bearing capacity can be achieved on compacted engineered fill. Finally, these recommendations are contingent upon the successful execution of the remedial overexcavation program. As noted by YCG, the overexcavation and recompaction plan should be revisited following final design and a qualified engineer should be onsite to confirm a firm and unyielding base is achieved. The

settlement and bearing pressure conclusions should be revisited if a different approach is taken to mitigate the mining deposits at the Site prior to construction.

- *Suitability of On-site Soils for Fill:* The Report states that soil generated from excavations on the Site, excluding deleterious material, may be used as engineered fill. Our review of provided laboratory testing data indicates that there are onsite soils with high percent fines (close to 100%) with liquid limit above 50, i.e. Fat Clays (CH) and Elastic Silts (ML). Based on our review, the Report does not appear to define any fines content or plasticity limits for Engineered Fill. High fines content soils, in our experience, may not be most suitable fill type for this purpose. Based on our review of the limited Atterberg Limits testing, the clays and silts that make up the slickens materials don't meet the minimum requirements for select import fill in the Report, with Plasticity Index (PI) exceeding the recommended maximum value of 12 (PI range reported as 23 – 39). Materials with PIs in this range are generally considered to exhibit expansion potential. Potentially expansive onsite soils are not recommended for use as engineered fill below slabs and footings but may be suitable for deeper backfill (>5 feet below finished grade) provided they are prepared and compacted in accordance with the grading and earthwork recommendations in the Report.

  YCG states that asphalt concrete and concrete materials may also be mixed into the engineered fills provided they are reduced to not greater than 9 inches in maximum dimensions and placed in low concentration to prevent nesting and allow for conventional testing of relative compaction. Geosyntec generally agrees with this conclusions, provided that oversized material (>3 inches) is removed for engineered fill below slabs and footings or retaining wall backfill. .

- *Seismic design considerations:* Shear wave velocity measurements were not performed at the Site. YCG evaluated the Site Class based on guidance described in American Society of Civil Engineers (ASCE) publication ASCE/SEI 7-16 and general knowledge of the local geology and characterized the Site as Class D. YCG notes that Site Class C has been used for neighboring sites, however the Site was characterized as D due to the presence of mining deposits. Considering that mining deposits will be remove under the building, this statement should be revisited.

  Site Class D is described as Stiff Soil with average blowcounts in the top 100 feet in the range of 15 to 50 blows per foot. Based on the review of the boring logs, the blowcounts generally range between 10 and 50+. The deepest boring with a recorded blowcount reached 42 feet bgs, meaning an average blowcount of the top the 100 feet is not available.

Site Class D (Default) may be the more appropriate designation in this case. Geosyntec emphasizes the Default D classification is only acceptable if YCG can provide evidence that the Site could not be downgraded to E or F with further explorations. Information such this may come from a review of local geology or other neighboring site explorations.

YCG provided seismic design parameters using Site Class D and notes that the structural engineer should review the conditions of the exceptions in ASCE 7-16 Section 11.4.8 and select the final choice of design parameters. While the available information is generally consistent with YCG's assessment, BTS Diligence Guidelines recommend that shear wave velocity measurement be performed to assist site classification, one of the reasons being that change in site classifications could result in significant change in seismic demand.

- *Design and construction recommendations for concrete flatwork:* Geosyntec reviewed the design recommendations for concrete flatwork. YCG recommends that slab subgrade be properly prepared and compacted. Fill should be moisture conditioned and compacted to the 95 percent of maximum dry density. At a minimum slabs should be underlain by 6 inches of Class 2 aggregate base compacted to 95 percent of maximum dry density. For slabs not subject to vehicle loading, a 4-inch section of concrete will be sufficient. For slabs with heavier expected loads (i.e., forklifts), a thicker section of 6 inches is recommended. YCG recommends that special attention be given regarding the drainage of the Site if contractor intends to grade during the wet season as the presence of shallow cemented soils could impact the subgrade preparation and require alternative subgrade support methods such as geogrid or chemical stabilization. Geosyntec generally agrees with these conclusions provided the subgrade soils are observed by a qualified engineer prior to concrete placement, and water infiltration be prevented during grading and subgrade preparation.

- *Design and construction recommendations for pavement areas:* Geosyntec reviewed the design recommendations for pavement considerations in the Report. Pavement recommendations are provided based on an R-Value of 15. The tested soils has an R-Value of 17, however YCG anticipates that grading operations would result in a design value closer to 15. The recommended design thicknesses were calculated in accordance with Caltrans Highway Design Manual. A varying range of traffic indices were evaluated. The proposed sections appear to be generally reasonable for the selected R-Value.

  YCG also mentioned that areas with existing mine deposits be overexcavated per the Site Plan presented on Figure D-1 and be backfilled with engineered fill. This overexcavation should extend 3 feet laterally beyond the proposed footprint. According to proposed

excavation approach, mining material remnants will be left in place under the pavement area. YCG states that settlement of the underlying mine deposits may follow after placement of the backfill and surface improvements should delay a minimum of 90 days following completion of backfill activities and before pavement construction. We did not identify any specific means (e.g., settlement monitoring) which may be required to confirm that 90 days wait period was sufficient. Furthermore, leaving mining material remnants in place may results in some long term settlements, total and differential, in the pavement areas. No discussion is provided on this topic.

- *Design and construction recommendations for below-grade structures:* Geosyntec reviewed the design recommendations for lateral earth and hydrostatic pressures for retaining walls. The selected parameters and recommended design values appear to be appropriate for this type of project and follow the standards of geotechnical practice. As noted in the Report, expansive soils should not be used as backfill material behind retaining walls and the reported values reflect walls bearing on firm native soil or engineered fill. Geosyntec recommends that free-draining soils be used as backfill for retaining walls.

- *Expansive Soils:* Geosyntec reviewed the Atterberg Limits which suggest a moderate to high expansion potential for the clays and silts that make up the slickens materials. YCG mentioned that expansion index testing was performed on the clay materials found within the slickens, however Geosyntec only found Atterberg Limits results in the Report. YCG states that they believe proposed grading operations will prevent clays from being concentrated as they are mixed with onsite non-plastic materials. Geosyntec generally agrees that this achievable provided that subgrade soils are properly compacted and moisture conditioned and observed by a qualified engineer. Geosyntec adds that the use of expansive materials should be avoided for engineered fill beneath slabs, footings, and pavement.

- *Stormwater drainage considerations:* YCG did not perform infiltration tests for the project Site nor do they comment on the design or feasibility of infiltration for the Site. Considering that infiltration is generally not recommended due to the presence of shallow cemented soils that may cause perched water conditions, careful attention should be given to stormwater controls during and after construction at the Site.

CONCLUSIONS AND LIMITATIONS

The peer review, comments, and recommendations presented in this memorandum are based on the data presented in the Geotechnical Investigation Report (YCG, 2021). The provided

information appears to generally address the scope of work requested. Geosyntec acknowledges that the Draft Report supports the preliminary site concept, and that verification of the recommendations will be required following finalization of grading and foundation plans.

Geosyntec generally agrees with the recommendations made in the Report that overexcavation and replacement can be used as the means to prepare the site for development, following which shallow foundation system may be an acceptable approach to support the proposed structure. However, there are several key items identified during the review of the Report that should be taken into account when selecting path forward for this development:

- The Report states that "Due to the non-uniform nature of soils, other geotechnical issues may become more apparent during grading operations which are not listed above." Considering that no new explorations have been performed for this study (i.e., YCG relied on existing exploration only) and that existing exploration coverage is extremely limited within the proposed building footprint, the proposed approach appears to leave high level of risk for surprises during construction.
- The site is underlined by remnants of historical mining operations. The Report recommends removal of mining operations remnants and provides preliminary excavation depths. The excavation depth of 25 feet was preliminarily recommended for the building footprint. However, summary of exploration on Figure A-2 indicates depth of slickens (historical mining operation remnants) of 33 feet in Boring D-2 and 29 feet in Boring BA-10 (a couple of deeper borings adjacent to building footprint area). It is unclear why excavation depth of 25 feet was selected. From this information it is not clear if the intent is to leave some of the mining remnants material in place or remove all of it.
- The Report recommends lateral extent of excavation of 10 feet laterally from the building envelope. It is our experience that lateral extent of remedial excavation should extend laterally at the bottom of excavation a minimum distance equal to the depth of excavation. This extent is typically measured from the outside edge of the footings.
- The Report only recommends partial excavation of mining operation remnants under the parking areas. This approach may result in significant differential settlement in the transition area between fully overexcavated and partially overexcavated mining material remnants.

Geosyntec generally agrees with the recommendations made in the Report, with exceptions as noted in this memorandum.

Geosyntec's peer review comments were prepared in accordance with generally accepted geotechnical engineering principles and practices. The applicability of the Report and this peer

review document should be re-evaluated if significant changes were to occur during the final design of the facility.

REFERENCES

Youngdahl Consulting Group, Inc. (YCG). Geotechnical Engineering Study for GEN 4.3 IXD Facility, 22 June 2021, Project No E03415.021.

Noise Impact Analysis –Rancho Cordova, California

Proposed Receiving Center

August 25, 2021

Prepared For:

Steve Beauchamp

Panattoni Development Company, Inc.

3777 Long Beach Boulevard
Annex Building
Long Beach, CA 90807

Dear Ms. Shively,

NV5 is pleased to present the Noise Impact Analysis for the proposed Receiving Center located at Rancho Cordova Parkway and International Drive in Rancho Cordova, CA. Please refer to the report for our findings and conclusions.

If you have any questions, please contact Tina Darjazanie at (310) 415-4784 or by email at tina.darjazanie@nv5.com.

For and on behalf of NV5,



Tina Darjazanie

Project Manager

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1. Introduction

1.1. Noise Impact Study Purpose and Objectives

NV5 conducted a noise impact analysis to evaluate the potential noise impacts and identify possible noise mitigation measures associated with the proposed Receiving Center within the Plan Area of Rio del Oro located at Rancho Cordova Parkway and International Drive in Rancho Cordova, CA. This study evaluates the short-term noise impacts from the construction activities and the long-term noise impacts from the on-site operations of the proposed Receiving Center on the sensitive receptors located near the site.

1.2. Project Description

The proposed site is a Receiving Center located within the Plan Area of Rio del Oro at Rancho Cordova Parkway and International Drive in Rancho Cordova, CA. The proposed site is located south of White Rock Road, east of Luyung Drive, and north of Douglas Road. The site is under the jurisdiction of the City of Rancho Cordova. The proposed project site is bounded by International Drive to the north; Zuke's Landscape followed by Luyung Drive to the west; undeveloped land followed by Sunrise Boulevard to the south; and more undeveloped land to the east. Exhibit A indicates the location of the facility.

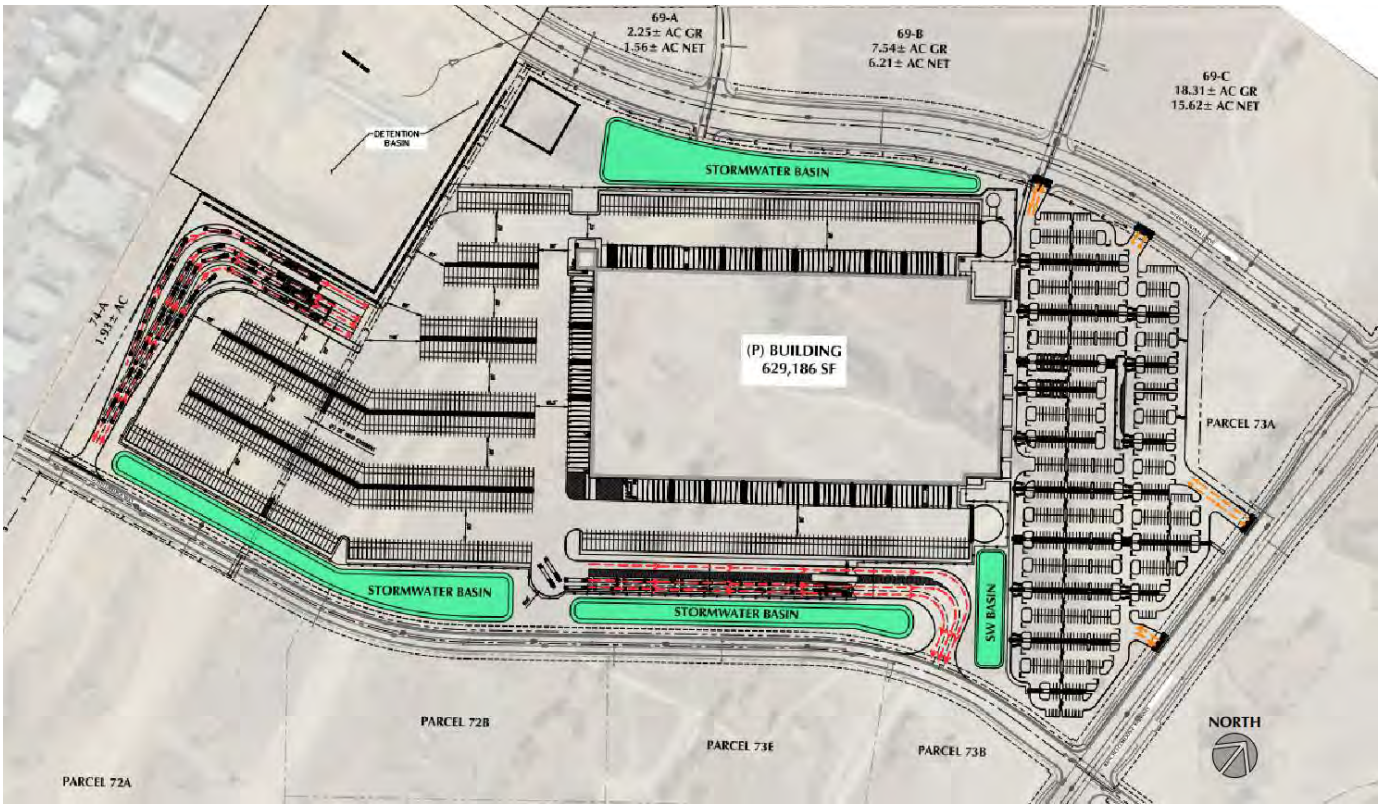
The site is located in Industrial Park (MP) and Business Park (BP) zones. The land use surrounding the property is designated as Residential and School Campus. Currently the areas north, south, and east of the site are undeveloped, and as such the closest sensitive receptors used in this study represent the proposed developments according to the Rio Del Oro Specific Plan. The closest sensitive receptors would be residential homes approximately 220 feet north of the site and 975 feet south of the site, as well as a school campus approximately 825 feet south of the site.

Based on the site Concept Plan (Exhibit B), the facility will consist of a truck entry driveway, truck exit driveway, trailer storage (i.e. truck parking), and employee car parking spaces. Access to the site for cars will be via the northeast driveways on International Drive and the east driveways on Rancho Cordova Parkway. Trucks will enter via the southwest driveway on Gold Dredge Way, and the exit will be via the southeast driveway along Gold Dredge Way.

Exhibit A – Project Location



Exhibit B – Site Concept Plan



	PROVIDED	PROTO*	DELTA
EMPLOYEE PARKING			
STANDARD:	995	960	35
ADA:	24	24	0
MOTORCYCLE:	16	16	0
TOTAL:	1035	1000	35
TRUCK PARKING			
DOCK BAYS:	139	139	0
TRAILER STORAGE:	686	702	-16
TOTAL	825	841	-16

* PROTOTYPE STALL COUNTS LISTED ARE THE TARGET NUMBERS FROM THE IXL 17MM OB G+1 GEN 4.3 BUILDING DESIGN TEMPLATE SHEET CS-100

TRAFFIC CIRCULATION LEGEND

TRUCK TRAFFIC FLOW DIRECTION

ASSOCIATE TRAFFIC FLOW DIRECTION

2. Noise and Vibration Fundamentals

2.1. Sound, Noise and Acoustics

Sound is a mechanical radiant energy that is transmitted by longitudinal pressure waves in a material medium, such as air in the case of traffic and stationary noise, and is the objective cause for human hearing. Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. Noise is defined as an unwanted sound.

2.2. Frequency

When sound travels through air, the atmospheric pressure varies periodically. The number of pressure variations per second is called the frequency of sound and is measured in Hertz (Hz) which is defined as cycles per second. Our hearing systems are not equally sensitive to all sound frequencies. Thus, not all frequencies are perceived as being equally loud at the same sound pressure level, and when calculating overall environmental noise ratings it is necessary to consider sounds at some frequencies as more impactful than those at other frequencies. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). The human ear can hear from a bass pitch starting at 20 Hz all the way to the high pitch of 20,000 Hz.

2.3. Sound Pressure Levels and Decibels

Sound pressure level (SPL or Lp) is a logarithmic measure of the effective pressure of a sound relative to a reference value. The sound pressure levels are measured in decibels abbreviated dB. The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. Exhibit C provides examples of A-weighted noise levels from common sounds.

Exhibit C – A-weighted common noise level scale

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

dBA = A-weighted decibels; mph = miles per hour

Source: California Department of Transportation, *Technical Noise Supplement*, September 2013.

2.4. Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. To add two or more noise levels, if the difference between the highest and next highest noise level is: 0–1 dB then add 3 dB to the higher level to give the total noise level, 2–3 dB then add 2 dB to the higher level to give the total noise level, 4–9 dB then add 1 dB to the higher level to give the total noise level, 10 dB and over, then the noise level is unchanged (i.e. the higher level is the total level)

2.5. Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, overall sound levels are determined by applying frequency weighted adjustments to spectral sound levels. The A-scale weighting scale is used to mimic human hearing response, so sound is reported in terms of A-weighted decibels (dBA). Typically, the human ear can barely perceive a change in noise level of 3 dBA. A change in 5 dBA is readily perceptible, and a change in 10 dBA is perceived as being twice or half as loud.

2.6. Sound Propagation

Sound is transmitted in air by pressure variations from its source to the surroundings. Sound levels will decrease as the distance between the source and the receptor increases. While absorption by air is one of the factors attributing to the weakening of a sound during transmission, distance plays a more important role in noise reduction during transmission. Depending on the source of the sound for every doubling of distance the level will be reduced between 3 and 6 dB. The reduction of a sound is called attenuation.

Other factors for noise attenuation are ground absorption and shielding. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receptor. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at a rate of an additional 1.5 dB per doubling of distance.

In order to break the line of sight, walls between a noise source and a receptor are often used for noise attenuation to reduce the noise levels at the receptor. Additional barriers such as buildings, hills and heavy vegetations can also reduce the noise levels. Typically, walls will reduce noise levels by 5-10dB. The higher the wall is, the higher the noise reduction will be.

2.7. Measurement of Sound

There are many ways to evaluate noise measured over periods of time. Equivalent continuous sound level (Leq) is the total sound energy measured over a stated period of time. LAs(Max) is the maximum level with A-weighted frequency response and slow time constant. The Community Noise Equivalent Level (CNEL) is the LAeq (equivalent noise level) over a 24-hour period with a penalty of 5dB for noises occurring from 7:00 p.m. to 10:00 p.m. and a penalty of 10dB for noises

occurring from 10:00 p.m. to 7:00 a.m. The noise penalty is added to the noise events during the evening and nighttime hours when individuals are more sensitive to noise.

2.8. Ground-Borne Vibration

Vibration is periodic motion of a solid medium in alternately opposite directions from the position of equilibrium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration amplitudes. The PPV is defined as the maximum instantaneous peak or negative peak of the vibration wave. The RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is the most commonly used descriptor for evaluating potential building damage, whereas RMS is generally used to assess human response. Typically, ground-borne vibration, generated by man-made activities, attenuates rapidly with distance from the source of vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source. Tables 1 and 2 display the criteria established by Caltrans for the likelihood of structural damage and human response due to vibration.

Operation of construction equipment, maintenance operations, and traffic traveling on roadways can generate ground-borne vibration. However, if the roadway is smooth, the vibration from traffic is typically not perceptible.

Table 1 - Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
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, Transportation- and Construction-Induced Vibration Guidance Manual, Table 20, 2020

Table 2 - Guideline Vibration Annoyance Potential Threshold Criteria

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

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, Transportation- and Construction-Induced Vibration Guidance Manual, Table 20, 2020

3. Regulatory Framework

3.1. Sacramento County Code

Section 6.68.070 (Exterior Noise Standards) states that the following noise standards, unless otherwise specifically indicated in this chapter, shall apply to all properties within a designated noise area.

Table 3 - Sacramento County Exterior Noise Standards

County Zoning Districts	Time Period	Exterior Noise Standard
RE-1, RD-1, RE-2, RD-2, RE-3, RD-3, RD-4, R-1-A, RD-5, R-2, RD-10, R-2A, RD-20, R-3, R-D-30, RD-40, RM-1, RM-2, A-1-B, AR-1, A-2, AR-2, A-5, AR-5	7:00 a.m. – 10:00 p.m.	55 dBA
	10:00 p.m. – 7:00 a.m.	50 dBA

It is unlawful for any person at any location within the County to create any noise which causes the noise levels on an affected property, when measured in the designated noise area, to exceed for the duration of time set forth following, the specified exterior noise standards in any one hour by:

Table 4 – Sacramento County Allowable Decibel Exceedances

Cumulative Duration of Intrusive Sound	Allowable Decibels
Cumulative period of 30 minutes per hour	0
Cumulative period of 15 minutes per hour	+ 5
Cumulative period of 5 minutes per hour	+ 10
Cumulative period of 1 minute per hour	+ 15
Level not to be exceeded for anytime per hour	+ 20

Each of the noise limits specified in Table 4 shall be reduced by five dBA for impulsive or simple tone noises, or for noises consisting of speech or music.

If the ambient noise level exceeds that permitted by any of the first four noise-limit categories specified in Table 4, the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

Section 6.68.090 states that noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of 8 p.m. and 6 a.m. on weekdays and Friday commencing at 8 p.m. through and including 7 a.m. on Saturday; Saturdays commencing at 8 p.m. through and including 7 a.m. on the next following Sunday and on each Sunday after the hour of 8 p.m. Provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

3.2. Sacramento County General Plan

The Noise Element of the Sacramento County General Plan provides a basis for comprehensive local policies to control and abate environmental noise and to protect the citizens of Sacramento County from excessive noise exposure.

Traffic and Railroad Noise Sources:
NO1. The noise level standards for noise-sensitive areas of new uses affected by traffic or railroad noise sources in Sacramento County are shown by Table 5. Where the noise level standards of Table 5 are predicted to be exceeded at new uses proposed within Sacramento County which are affected by traffic or railroad noise, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the Table 5 standards.

Non-Transportation Noise Sources:
NO5. The interior and exterior noise level standards for noise-sensitive areas of new uses affected by existing non-transportation noise sources in Sacramento County are shown by Table 6. Where the noise level standards of Table 6 are predicted to be exceeded at a proposed noise-sensitive area due to existing non-transportation noise sources, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the Table 6 standards within sensitive areas.
NO6. Where a project would consist of or include non-transportation noise sources, the noise generation of those sources shall be mitigated so as not exceed the interior and exterior noise level standards of Table 6 at existing noise-sensitive areas in the project vicinity.

NO7. The “last use there” shall be responsible for noise mitigation. However, if a noise generating use is proposed adjacent to lands zoned for uses which may have sensitivity to noise, then the noise generating use shall be responsible for mitigating its noise generation to a state of compliance with the Table 6 standards at the property line of the generating use in anticipation of the future neighboring development.

Construction Noise:

NO8. Noise associated with construction activities shall adhere to the County Code requirements. Specifically, Section 6.68.090(e) addresses construction noise within the County.

General Noise Policy:

NO12. All noise analyses prepared to determine compliance with the noise level standards contained within this Noise Element shall be prepared in accordance with Table 7.

NO13. Where noise mitigation measures are required to satisfy the noise level standards of this Noise Element, emphasis shall be placed on the use of setbacks and site design to the extent feasible, prior to consideration of the use of noise barriers.

NO14. Noise analyses prepared for multi-family residential projects, town homes, mixed use, condominiums, or other residential projects where floor ceiling assemblies or party-walls shall be common to different owners/occupants, shall be consistent with the State of California Noise Insulation standards.

NO15. The County shall have the flexibility to consider the application of 5 dB less restrictive exterior noise standards than those prescribed in Tables 5 and 6 in cases where it is impractical or infeasible to reduce exterior noise levels within infill projects to a state of compliance with the Table 5 or 6 standards. In such cases, the rational for such consideration shall be clearly presented and disclosure statements and noise easements should be included as conditions of project approval. The interior noise level standards of Tables 5 and 6 would still apply. The maximum allowable long-term noise exposure permissible for non-industrial uses is 75 dB.

Table 5 – Sacramento County Noise Standards for New Uses Affected by Traffic and Railroad Noise

New Land Use	Sensitive[1] Outdoor Area - Ldn	Sensitive Interior[2] Area - Ldn	Notes
All Residential	65	45	5
Transient Lodging	65	45	3, 5
Hospitals & Nursing Homes	65	45	3, 4, 5
Theaters & Auditoriums	---	35	3
Churches, Meeting Halls	65	40	3
Schools, Libraries, etc.	65	40	3
Office Buildings	65	45	3
Commercial Buildings	---	50	3
Playgrounds, Parks, etc.	70	---	
Industry	65	50	3

1. Sensitive areas are defined in acoustic terminology section.
2. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
3. Where there are no sensitive exterior spaces proposed for these uses, only the interior noise level standard shall apply.
4. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
5. If this use is affected by railroad noise, a maximum (Lmax) noise level standard of 70 dB shall be applied to all sleeping rooms to reduce the potential for sleep disturbance during nighttime train passages.

Table 6 – Sacramento County Non-Transportation Noise Standards

Median (L50) / Maximum (Lmax)[1]				
	Outdoor Area[2]		Interior[3]	
Receiving Land Use	Daytime	Nighttime	Day & Night	Notes
All Residential	55/75	50/70	35/55	
Transient Lodging	55/75	---	35/55	4
Hospitals & Nursing Homes	55/75	---	35/55	5, 6
Theaters & Auditoriums	---	---	30/50	6
Churches, Meeting Halls, Schools, Libraries, etc.	55/75	---	35/60	6
Office Buidlings	60/75	---	45/65	6
Commercial Buildings	---	---	45/65	6
Playgrounds, Parks, etc.	65/75	---	---	6
Industry	60/80	---	50/70	6

1. The noise standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards in this table, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
2. Sensitive areas are defined in acoustic terminology section.
3. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
4. Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.
5. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
6. The outdoor activity of these uses (if any) are not typically utilized during nighttime hours.
7. Where median (L50) noise level data is not available for a particular noise source, average (Leq) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply.

Table 7 – Requirements for Acoustical Analyses Prepared in Sacramento County

An acoustical analysis prepared pursuant to the Noise Element shall:

1. Be the responsibility of the applicant.
2. Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
3. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
4. Estimate projected future (20 year) noise levels in terms of the Standards of Tables 5 and 6 and compare those levels to the adopted policies of the Noise Element.
5. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.
6. Estimate interior and exterior noise exposure after the prescribed mitigation measures have been implemented.

3.3. City of Rancho Cordova Municipal Codes

The site is under the jurisdiction of the City of Rancho Cordova. Per Chapter 23.737 of the Rancho Cordova Municipal Code (RCMC), all permanent and temporary land uses must comply with noise performance standards set forth in Chapter 6.68 to minimize various potential operational impacts. Section 6.68.010A states “excessive, unnecessary or offensive noise within the city is detrimental to the public health, safety, welfare and the peace and quiet of the inhabitants of the city and therefore is declared a public nuisance.” Section 6.68.070A states the exterior noise standards applicable to all properties as follows:

Table 8 – City of Rancho Cordova Exterior Noise Standards

Time Period	Exterior Noise Standard
7:00 a.m. – 10:00 p.m.	55 dBA
10:00 p.m. – 7:00 a.m.	50 dBA

RCMC 6.68.070B also states that it is unlawful for any person at any location within the city to create any noise which causes the noise levels on an affected property, when measured in the designated noise area, to exceed for the duration of time set forth following, the specified exterior noise standards in any one hour by:

Table 9 – City of Rancho Cordova Allowable Decibel Exceedances

Cumulative Duration of Intrusive Sound	Allowable Decibels
Cumulative period of 30 minutes per hour	0
Cumulative period of 15 minutes per hour	+ 5
Cumulative period of 5 minutes per hour	+ 10
Cumulative period of 1 minute per hour	+ 15
Level not to be exceeded for anytime per hour	+ 20

RCMC 6.68.090E states noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between 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.; provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

RCMC 6.68.110 states that it is unlawful for any person to create any noise which causes the noise level at any school, hospital or church, while the same is in use, to exceed the noise standards or to create any noise which unreasonably interferes with the use of such institution or unreasonably disturbs or annoys patients in the hospital. In any disputed case, interfering noise which is 10 dBA or more greater than the ambient noise level at the building shall be deemed excessive and unlawful.

Any violation of the RCMC noise ordinances is unlawful and constitutes a public nuisance. If the Rancho Cordova chief of police or the city health officer have reason to believe there has been a violation, a written notice will be served to the alleged violator. The notice will include dBA readings, time and place of the readings, and may include an order that a corrective action be taken within a specified time. If corrective action is not taken within the specified time, the violation will constitute an infraction. Each day of violation is considered a new and separate offense.

Public nuisances are covered in Chapter 16.18 of the RCMC. Per Section 16.18.205(F)(4) the maximum amount of the fine imposed for each code violation under this section is as follows:

i. $100 per day for a first violation;
ii. $200 per day for a second violation of the same ordinance within one year; and
iii. $500 per day for each additional violation of the same ordinance within one year.

RCMC 6.68.070D states that “if the ambient noise level exceeds that permitted by any of the first four noise -limit categories specified in subsection (B) of this section, the allowable noise limit shall be increased in 5 dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.”

3.4. City of Rancho Cordova General Plan

- **Policy N.1.1** - Establish standards and policies consistent with those in Tables 10 and 11 to govern maximum sound levels in new development.
    - **Action N.1.1.1** - Adopt a Noise Ordinance with noise level performance standards, including maximum allowable noise exposure, ambient versus nuisance noise, method of measuring noise, and enforcement procedures.
- **Policy N.1.2** - Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City’s noise standards to the maximum extent feasible.
    - **Action N.1.2.1** - Require new development of noise-creating uses to conform with the City’s maximum noise levels.
    - **Action N.1.2.2** - Require an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas where current or projected exterior noise levels exceed the City’s standards.

    - **Action N.1.2.3** - Require any potential noise impacts identified during the acoustical analysis to be mitigated in the project design to the maximum extent feasible.
- **Policy N.1.3** - Ensure that proposed non-residential land uses likely to exceed the City's standards do not create noise disturbances in existing noise-sensitive areas.
- **Policy N.1.4** - Mitigate noise created by proposed non-transportation noise sources to comply with the City's noise standards to the maximum extent feasible.
    - **Action N.1.4.1** - Limit construction activity to the hours of 7:00 a.m. to 7:00 p.m. weekdays and 8:00 a.m. to 6:00 p.m. weekends when construction is conducted in proximity to residential uses.
    - **Action N.1.4.2** - Consider restricting the hours of operation of loading docks, trash compactors, and other noise-producing uses in commercial areas that are adjacent to residential uses.
    - **Action N.1.4.3** - Require stationary construction equipment and construction staging areas to be set back from existing noise-sensitive land uses.
- **Policy N.1.5** - Mitigate noise created by the construction of new transportation noise sources (such as new roadways or new light rail service) to the maximum extent feasible to comply with the City's standards.
- **Policy N.1.6** – Ensure that comfortable noise levels and adequate privacy are maintained in higher density development.
- **Policy N.1.7** - To the extent feasible and appropriate, the City shall require the use of temporary construction noise control measures for public and private project that may include the use of temporary noise barriers, temporary relocation of noise-sensitive land uses or other appropriate measures.
- **Policy N.2.3** - Emphasize mitigation methods other than soundwall installation to reduce noise to acceptable levels in residential areas originally constructed without soundwalls.

Table 10 – City of Rancho Cordova Noise Level Performance Standards for New Projects Affected By or Including Non-Transportation Noise Sources

Stationary Noise Source	Noise Level Descriptor	Daytime Maximum (7 a.m. to 10 p.m.)	Nighttime Maximum (10 p.m. to 7 a.m.)
Typical	Hourly Leq, dB	55	45
Tonal, impulsive, repetitive, or consist primarily of speech or music	Hourly Leq, dB	50	40

The City may impose noise level standards which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels.

Table 11 – City of Rancho Cordova Maximum Transportation Noise Exposure

Land Use	Outdoor Activity Areas[1]	Interior Spaces	
	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	--	--

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.*

Note: The City's General Plan noise limits are defined in dB. However, dBA is the more common unit of measurement for noise because it reflects the normal hearing sensitivity range of the human ear. We therefore advise that noise significance threshold be in dBA.

3.5. Rio del Oro Specific Plan's (RDOSP) EIR

The proposed site is located within the Plan Area of Rio Del Oro. A background noise study was performed in 2004 and 2005 as part of the Environmental Impact Report (EIR) for the RDOSP. The following provides a list of proposed measures in the EIR. Note: Each measure is consistent (in scope and numbering) with the mitigation measures listed in the RDOSP Project EIR.

Mitigation Measure 3.16-1: Implement Measures to Prevent Exposure of Sensitive Receptors to Temporary Construction-Generated Noise.

To reduce impacts associated with noise generated during construction activities, the project applicant(s) for all project phases shall conform to the following requirements:

- Noise-generating construction operations shall be limited to the hours between 7 a.m. and 7 p.m. Monday through Friday, and between 8 a.m. and 6 p.m. on Saturday and Sunday.
- All construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses.
- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- All motorized construction equipment shall be shut down when not in use to prevent idling.
- The following measures shall be required for exterior activities that involve the use of heavy-duty construction equipment (see Table 12) located within 800 feet of occupied noise-sensitive daytime land uses (e.g., school classrooms, childcare and convalescent care facilities, inpatient medical facilities, places of worship):
    - Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of onsite).
    - Written notification of construction activities shall be provided to all noise-sensitive receptors located within 800 feet of construction activities. Notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification.
    - To the extent feasible, acoustic barriers (e.g., lead curtains, sound barriers) shall be constructed to reduce construction-generated noise levels at affected noise sensitive land uses. The barriers shall be designed to obstruct the line of sight between the noise-sensitive land use and on-site construction equipment. When installed properly, acoustic barriers can reduce construction noise levels by approximately 8–10 dBA (EPA 1971).

Table 12 – Construction Equipment Noise Levels

Type of Equipment	Typical Noise Level (dBA) at 50 feet	
	Without Feasible Noise Control	With Feasible Noise Control[1]
Dozer or Tractor	80	75
Excavator	88	80
Compactor	82	75
Front-end Loader	79	75
Backhoe	85	75
Grader	85	75
Crane	83	75
Generator	78	75
Truck	91	75

1 Feasible noise control includes the use of intake mufflers, exhaust mufflers, and engine shrouds in accordance with manufacturer's specifications.
Source: EPA 1971

Mitigation Measure 3.16-2: Implement Measures to Reduce Potential Exposure of Sensitive Receptors to Stationary Source–Generated Noise.

To reduce potential long-term exposure of sensitive receptors to noise generated by City-controlled, project-related stationary noise sources from private activities, the City shall evaluate individual facilities, subdivisions, and other project elements for compliance with the City Noise Ordinance and policies contained in the City General Plan. All project elements shall comply with City noise standards. The project applicant(s) for all project phases shall implement the following measures to assure maximum reduction of project interior and exterior noise levels from operational activities:

- The proposed land uses shall be designed so that on-site mechanical equipment (e.g., HVAC units, compressors, generators) and area-source operations (e.g., loading docks, parking lots, and recreational-use areas) are located as far as possible from or shielded from nearby noise-sensitive land uses.
- To the extent feasible, residential land uses located within 2,500 feet and within the direct line of sight of major noise-generating commercial and industrial land uses (e.g., loading docks, manufacturing facilities, equipment/vehicle storage and repair facilities, and material processing areas such as concrete batch plants) shall be shielded from the line of sight of these facilities by construction of a sound barrier. To be effective, fences

or sound barriers need to be continuous or solid, with very few gaps, and must block the line of sight to windows of neighboring dwellings. Achieved noise reductions from fences or barriers can vary, but typically range from approximately 5 to 10 dBA, depending on construction characteristics, height, and location. The developer shall obtain the services of a professional acoustician to determine the design and location of noise barriers to be constructed.

Mitigation Measure 3.16-3: Potential Exposure to Off-Site Stationary-Source Noise.

- Implement Mitigation Measure 3.16-2.

Mitigation Measure 3.16-4: Project-Generated Increases in Traffic Noise Levels on Area Roadways.

- No mitigation measures are required.

Mitigation Measure 3.16-5: Implement Measures to Improve Land Use Compatibility with Noise Sources.

To meet City noise standards set forth in the City General Plan and Noise Ordinance and improve compatibility between project land uses and noise sources, the project applicant(s) for all project phases shall implement the following for all project phases:

- Implement Mitigation Measure 3.16-2 described above.
- Obtain the services of a consultant (such as a licensed engineer or licensed architect) to develop noise attenuation measures for the proposed construction of onsite noise-sensitive land uses (i.e., residential dwellings and school classrooms) that will produce a minimum composite Sound Transmission Class (STC) rating for buildings of 30 or greater, individually computed for the walls and the floor/ceiling construction of buildings, for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms).
- When tentative subdivision maps and commercial uses are proposed, the project applicant(s) shall conduct a site-specific acoustical analysis to determine predicted roadway noise impacts attributable to the project, taking into account site-specific conditions (e.g., site design, location of structures, building characteristics). The acoustical analysis shall evaluate stationary- and mobile-source noise attributable to the proposed use or uses and impacts on nearby noise-sensitive land uses, in accordance with adopted City noise standards. Feasible measures shall be identified to reduce project-related noise impacts. Measures may include, but are not limited to, the following:
    - construction of exterior sound walls;
    - use of increased noise-attenuation measures in building construction (e.g., dual-pane, sound-rated windows; exterior wall insulation); and
    - limiting noise-generating operational activities associated with proposed commercial land uses, including truck deliveries.

Mitigation Measure 3.16-7: Temporary Exposure to Construction-Generated Noise.

- Implement Mitigation Measure 3.16-1.

Mitigation Measure 3.16-8: Potential Exposure to Stationary-Source Noise Generated by On-Site Land Uses.

- Implement Mitigation Measure 3.16-2.

Mitigation Measure 3.16-9: Potential Exposure to Off-Site Stationary-Source Noise.

- Implement Mitigation Measure 3.16-3.

Mitigation Measure 3.16-10: Project-Generated Increases in Traffic Noise Levels on Area Roadways.

- No mitigation measures are required.

Mitigation Measure 3.16-11: Compatibility of Proposed Land Uses with Projected Noise Levels.

- Implement Mitigation Measure 3.16-5.

3.6. Ground Borne Vibration Standards

The City of Rancho Cordova and the Sacramento County do not have quantitative standards relative to ground-borne vibration. The Rancho Cordova Municipal Code (Section 23.737.050, Vibration Standards), states that uses that generate vibrations that may be considered a nuisance or hazard on any adjacent property shall be cushioned or isolated to prevent generation of vibrations. Uses shall be operated in compliance with the following provisions:

A. Uses shall not generate ground vibration that is perceptible without instruments by the average person at any point along or beyond the property line of the parcel containing the activities.

B. Uses, activities, and processes shall not generate vibrations that cause discomfort or annoyance to reasonable persons of normal sensitivity or which endanger the comfort, repose, health, or peace of residents whose properties about the property lines of the subject parcel.

C. Uses shall not generate ground vibration that interferes with the operations of equipment and facilities of adjoining parcels.

D. Vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks, trains, and aircraft) are exempt from the provisions of this section.

Caltrans has a guidance manual (“Transportation- and Construction-Induced Vibration Guidance Manual” updated April 2020) that provides thresholds for potential impacts on human comfort and damage to buildings that will be used to assess impacts due to ground-borne

vibration. In most circumstances, common ground-borne vibrations related to roadway traffic and construction activities pose no threat to buildings or structures.

3.7. Significance Thresholds

For the purpose of this study the following threshold of significance will be used to determine the noise and vibration impact on the nearest sensitive receptors:

Construction Noise

- Construction activities between the hours of 7:00 a.m. to 6:00 p.m. on weekdays and 9:00 a.m. to 6:00 p.m. on weekends, which is within the allowable construction hours set by the City of Rancho Cordova and also within the hours referenced in the EIR (MM 3.16-1).

- The City of Rancho Cordova Municipal Code and the Sacramento County General Plan do not have a maximum numeric limit for noise levels related to construction activities at the sensitive receptors. However, the City of Rancho Cordova General Plan mentions that construction activities are exempt from noise standards, provided they take place between 7:00 a.m. to 6:00 p.m., Monday through Saturday, and 9:00 a.m. to 6:00 p.m. on Sunday. The City of Rancho Cordova General Plan also states that construction activities generate maximum noise levels typically range from 85 dBA to 90 dBA at a distance of 50 feet. The Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment provides an eight-hour construction noise level threshold of 80 dBA Leq during daytime at residential (noise-sensitive) uses, and 85 dBA during the daytime at commercial uses. Therefore, those thresholds were used to evaluate the need of mitigation measures during construction activities.

Construction Vibration

- 0.04 PPV at a residential receptor.

On-Site Operational Noise

- Long-term stationary-source noise levels that would exceed applicable City noise standards (Tables 8, 9, and 10)

4. Environmental Settings

Ambient Noise or background levels are the all-encompassing noises associated with a given environment at a specific time, usually a composite of sound from many sources from many directions, near and far without any particular dominant sound. The primary existing noise sources surrounding the project site are traffic flow along Luyung Drive, White Rock Road, and Sunrise Boulevard. Other noise sources include traffic noise from other roads surrounding the project site and noise from other industrial and commercial properties located west of the site.

The land located north, south, and east of the project site is not yet developed, and as such the current ambient noise levels are lower than the anticipated future ambient noise levels. Once the area is developed, the noise produced from nearby roads that are planned to be built will

contribute to the ambient noise levels. Noise from other industrial and commercial facilities that will be built in the area will also increase ambient levels.

Therefore, in order to be conservative, NV5 used the daytime and nighttime noise limits from the Rancho Cordova General Plan (55 dBA for daytime and 45 dBA for nighttime) as the ambient noise levels for the area. Using the City's noise limits is expected to represent the worst-case scenario as the ambient noise is expected to increase once roads and industrial and commercial facilities are constructed.

5. Environmental Impacts

5.1. Thresholds of Significance

According to the current CEQA Appendix G guidelines, noise impacts are considered potentially significant if they cause:

A. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Noise levels exceeding the City of Rancho Cordova Noise Standards would be considered significant.
B. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.
C. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
D. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
E. For a project 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, expose people residing or working in the project area to excessive noise levels.
F. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

5.2. Impact Analysis

A. *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.*

Project Operational Noise

The potential for a substantial permanent increase in noise levels was assessed for mobile and stationary sources.

Operational On-site Stationary Noise

The City of Rancho Cordova's general plan states that the maximum allowable noise level (defined as hourly Leq) for stationary noise sources is 55 dB during the daytime (7 a.m. – 10 p.m.) and 45 dB during the nighttime (10 p.m. – 7 a.m.). The noise limits are defined in dB in the City document. However, dBA is the more common unit of measurement for noise because it reflects the normal hearing sensitivity range of the human ear. We therefore advise that noise significance threshold be in dBA.

The potential noise impacts on the community would be associated with stationary sources operating on the project site. Motor vehicle noise on public streets is often considered as part of the ambient noise; when vehicles enter a private site, they are considered as part of the site's noise sources. The trucks and employee cars activities on site could affect the closest sensitive receptors.

The impact evaluation of the project was performed using SoundPlan Essential 5.1, an environmental noise propagation computer program that was developed to assist with noise propagation calculations for major noise sources and projects. The program calculates the sound pressure level at a location utilizing the sound emission properties of the source(s) and environmental propagation factors (sound spreading due to distance, ground affects, barriers, topography, as well as atmospheric attenuation). The program also includes a number of standardized methodologies that can be utilized to quantify the acoustic effect of these environmental factors. The specific standard employed by this program is that described in the ISO standard 9613 "Acoustics - Attenuation of sound during propagation outdoors". The modeled ambient temperature was 10 degrees C (50 degrees F) and the assumed relative humidity (RH) was 70 percent. The ground absorption value utilized in the model was 0 (for hard ground), which is conservatively representative of the land at the site.

Elevation lines were created using the grading plan. No sound attenuation due to foliage was included in this analysis. A 12-foot concrete sound wall on the north of the site was also included as part of the current concept plan for the site.

This study evaluates the acoustical impact of the proposed facility on the adjacent future sensitive receptors and compares it to the local noise standards to assess if any mitigation measure would be necessary to reduce the noise exposure to the community. Future community noise impacts from the onsite operations were modeled using SoundPlan Essentials 5.1 acoustical modeling software. This study focuses on the daytime and nighttime noise levels in order to determine the acoustical impact of the site on the closest receptors.

Noise Sources

Vehicles Noise Sources

Based on the traffic count provided (Appendix C), the following are the noise sources related to vehicles driving on site:

Daytime (7 a.m. - 10 p.m.):

- Eight hundred and forty-one (841) cars will enter the site and nine hundred and two (902) will leave the site between the hours of 7 a.m. and 10 p.m.

- One hundred and thirty-one (131) line haul trucks will be entering and one hundred and thirty-three (133) leaving the site between the hours of 7 a.m. and 10 p.m.

Nighttime (10 p.m. – 7 a.m.):

- Six hundred and twenty-two (622) cars will be entering and five hundred and sixty-three (563) will be leaving the site between the hours of 10 p.m. and 7 a.m.

- One hundred and seventy (170) line haul trucks will be entering and leaving the site between the hours of 10 p.m. and 7 a.m.

Noise sources were entered in the system as octave band sound power levels based on reference noise levels measured at a similar facility. NV5 took sound pressure level measurements with a reference distance of 50 feet in order to represent the noise levels associated with the different noise sources. The measurements included sound pressure levels of one truck driving and parking at the loading docks. This data is used to represent the noise levels associated with a single truck entering the site or being active at the loading dock.

Trucks

Three area sources were placed along the north, south, and west of the proposed building site to represent the truck activities (line haul) at the loading docks and trailer storage.
One line source was placed between the truck entrance and the loading docks to model the noise from trucks queuing and two line sources were placed between the truck loading docks and driveways to model noise from trucks driving on site (i.e. path in and path out).
Each truck will be operating for up to 5 minutes at each area.

Truck activity is expected during the day and at nighttime, therefore, trucks were modeled to be active during the day and at nighttime. Using the maximum hourly count, the maximum amount of time that trucks will be active onsite were calculated. As such, the trucks were modeled to be operating for a total of 20 minutes per hour during the day and 35 minutes per hour at nighttime in each area source and line source.

Employee Parking and Trailer Storage

The employee parking was represented by a parking area in the eastern portion of the property. Trailer storage was represented by a parking area in the western portion of the property. Due to close proximity of the trailer storage north and south of the site to the north and south loading docks, they were included in the area sources mentioned in the previous section. The noises associated with parking of vehicles that are accounted for in the model include engine ignition, vehicle doors opening and closing. The traffic volume of the parking lot is entered with the number of moves per parking bay (in and out are each considered a single move), the hour (for the time slices day and night) and the number of parking bays.

The model predicted the maximum noise levels produced by the truck and employee car activities using expected noise sources from trucks and employee cars. The sources were modeled as operating at the same time to represent the worst-case scenario.

Tables 13 and 14 list the sources that were considered in the analyses and Exhibit D shows the locations of noise sources and the proposed building.

Table 13 - Source Sound Power Levels in Octave Band Format (dB, re 10-12W)

Equipment/Source		Level (dBA)	Octave Band Centre Frequency (Hz), Sound Power Levels (dBA)								
			31	63	125	250	500	1,000	2,000	4,000	8,000
North Loading Dock	Day	99.5	43.2	66.9	81.4	90.3	92.1	92.1	93.5	91.4	89
	Night	101.9	45.6	69.3	83.8	92.7	94.5	94.5	95.9	93.8	91.4
West Loading Dock	Day	99.5	43.2	66.9	81.4	90.3	92.1	92.1	93.5	91.4	89
	Night	101.9	45.6	69.3	83.8	92.7	94.5	94.5	95.9	93.8	91.4
South Loading Dock	Day	99.5	43.2	66.9	81.4	90.3	92.1	92.1	93.5	91.4	89
	Night	101.9	45.6	69.3	83.8	92.7	94.5	94.5	95.9	93.8	91.4
Truck Queue	Day	99.5	43.2	66.9	81.4	90.3	92.1	92.1	93.5	91.4	89
	Night	101.9	45.6	69.3	83.8	92.7	94.5	94.5	95.9	93.8	91.4
Truck Entrance	Day	99.5	43.2	66.9	81.4	90.3	92.1	92.1	93.5	91.4	89
	Night	101.9	45.6	69.3	83.8	92.7	94.5	94.5	95.9	93.8	91.4
Truck Path	Day	99.5	43.2	66.9	81.4	90.3	92.1	92.1	93.5	91.4	89
	Night	101.9	45.6	69.3	83.8	92.7	94.5	94.5	95.9	93.8	91.4
Truck Path Out	Day	99.5	43.2	66.9	81.4	90.3	92.1	92.1	93.5	91.4	89
	Night	101.9	45.6	69.3	83.8	92.7	94.5	94.5	95.9	93.8	91.4

Table 14 - Source Sound Power Levels – Parking Lots

Name	Size		Movements per hour		Road surface	Lw,ref (dBA)
			Day	Night		
Employee Parking	1,039	Parking bays	0.44	0.44	Asphaltic driving lanes	100.7
Trailer Storage	704	Parking bays	0.034	0.048	Asphaltic driving lanes	112.6

Sensitive Receptors

As mentioned above, currently the areas north, south, and east of the site are undeveloped, and as such the closest sensitive receptors used in this study are based on the proposed developments specified in the Rio Del Oro Specific Plan. Sensitive receptors within the vicinity of the proposed site that may be affected are residential areas north and south of the site and a school campus area south of the site.

A total of eight (8) receptors were modeled to evaluate the proposed project's operational noise impact. The location of the sensitive receptors is shown in Exhibit D, represented by a yellow dot. Receptors 1 through 5 represent the single-family residential zone that will be located north of the site and north of greenbelt and International Drive. Receptors 6 and 7 represent the single-family and medium density residential zones, respectively, that will be located south of the site. Receptor 8 represents the school campus zone that will be located south of the site. All receptors are two-stories high.

Exhibit D shows the predicted noise level map at the sensitive receptor areas. Exhibits E and F show the estimated noise level contours for the project for the daytime and nighttime, respectively.

Operational noise levels (hourly Leq) are anticipated to range between 39.3-46.0 dBA during the daytime and 40.3-47.9 dBA at nighttime at the nearest sensitive receptors. As part of the development of the Rio del Oro business park, the vacant land south of the site that is in between the site and the south sensitive receptors will be developed and buildings will be built. Additionally, the City requires that any industrial facility that is located within 2,500 feet and within the direct line of sight of a residential land use area to have a sound barrier to help protect and shield sensitive receptors from unwanted noise (see MM 3.16-2). As such, the predicted noise levels for the south receptors will be reduced by a minimum of 15 dBA once the vacant land is developed. The maximum number of trucks and cars at any hour (i.e. peak hour) was used to calculate the predicted noise levels. Therefore, the predicted noise levels of 45.5 dBA for the north receptors represent the noise levels for when the maximum number of trucks and cars are active at the same time. However, based on the Trip Generation Count (Appendix C) the peak hour for trucks is not the peak hour for cars and the car activities will actually be at a minimum. Similarly, during the peak hour for cars, the truck activities will be at a minimum. Therefore, it is unlikely that the predicted noise levels for the north receptors exceed the City limit of 45 dBA. Table 15 shows the results of the noise level predictions.

Table 15 – Operational Predicted Noise Levels

No.	Receiver name	Floor	Predicted Noise Levels dBA [1,2]		City's Noise Limits dBA		Do Predicted Noise Levels exceed City's Noise Limits? [1,2]	
			Day	Night	Day	Night	Day	Night
1	Loc 1 SF Home Site	GF	43.4	45.5	55	45	No	No[1]
1	Loc 1 SF Home Site	1.Fl	43.0	45.1	55	45	No	No[1]
2	Loc 2 SF Home Site	GF	43.4	45.5	55	45	No	No[1]
2	Loc 2 SF Home Site	1.Fl	43.0	45.1	55	45	No	No[1]
3	Loc 3 SF Home Site	GF	43.3	45.3	55	45	No	No[1]
3	Loc 3 SF Home Site	1.Fl	42.8	44.7	55	45	No	No
4	Loc 4 SF Home Site	GF	43.2	44.2	55	45	No	No
4	Loc 4 SF Home Site	1.Fl	43.2	44.1	55	45	No	No
5	Loc 5 MD Home Site	GF	39.3	40.3	55	45	No	No
5	Loc 5 MD Home Site	1.Fl	40.0	40.9	55	45	No	No
6	Loc 6 SF Home Site	GF	45.3	47.2	55	45	No	No[2]
6	Loc 6 SF Home Site	1.Fl	45.1	47.1	55	45	No	No[2]
7	Loc 7 MD Home Site	GF	46.0	47.9	55	45	No	No[2]
7	Loc 7 MD Home Site	1.Fl	45.6	47.5	55	45	No	No[2]
8	Loc 8 High School Site	GF	45.3	47.0	55	45	No	No[2]
8	Loc 8 High School Site	1.Fl	44.9	46.6	55	45	No	No[2]

1) Predicted noise levels represent the noise levels for the peak hours when the maximum number of trucks and cars are active at the same time. However, during the peak hour for trucks, the car activities will be at a minimum and during the peak hour for cars, the truck activities will be at a minimum. Therefore, the predicted daytime and nighttime noise levels for Receptors 1-5 are not expected to exceed the limits set forth by the City.
2) Predicted noise levels for Receptors 6-8 will be attenuated by the buildings and sound barriers that are going to be built as part of the business park development. Therefore, the predicted daytime and nighttime noise levels for Receptors 6-8 are not expected to exceed the limits set forth by the City.

Exhibit D – Operations Noise Level Projections

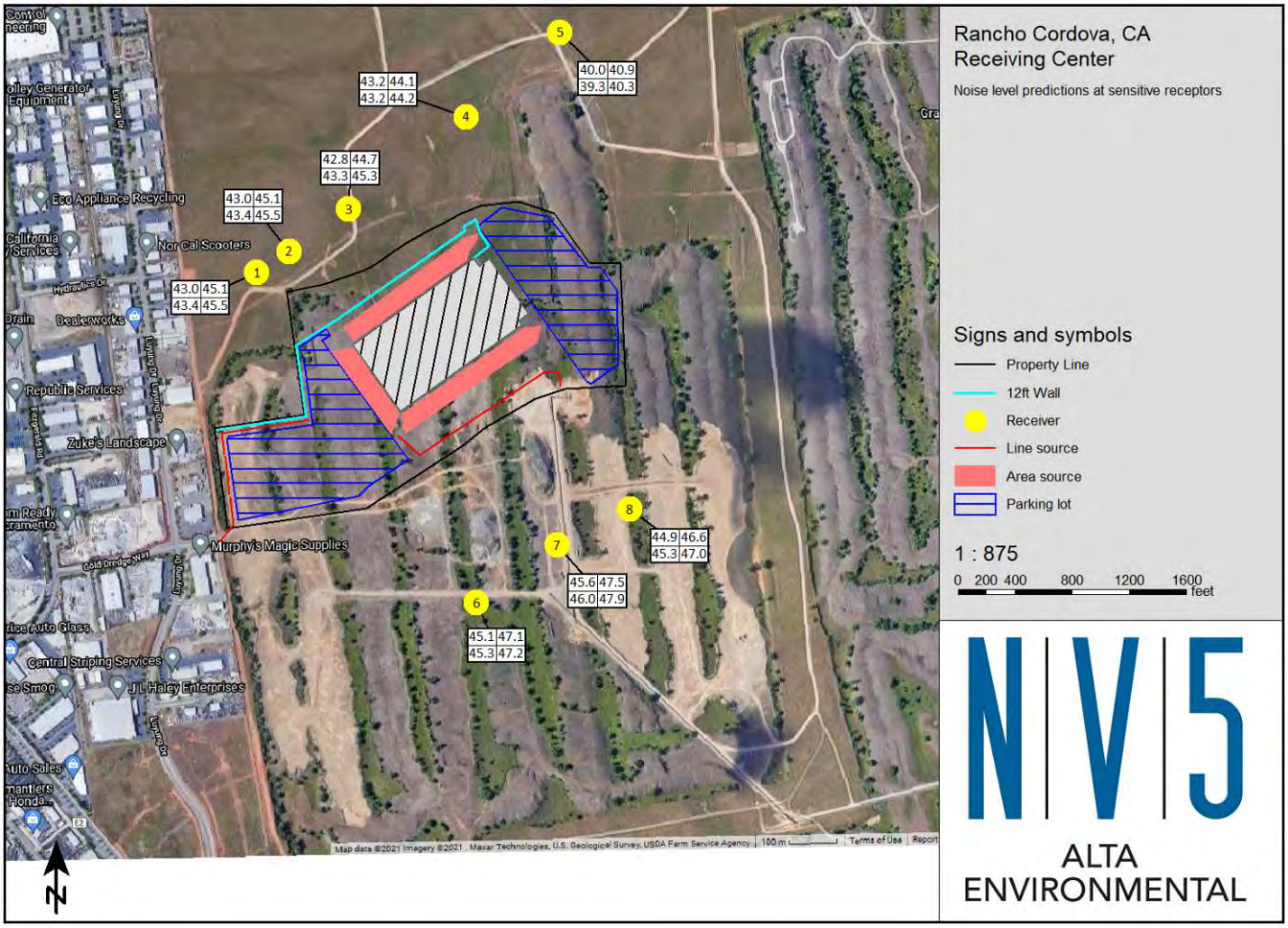


Exhibit E – Operations Noise Level Contours (Daytime)

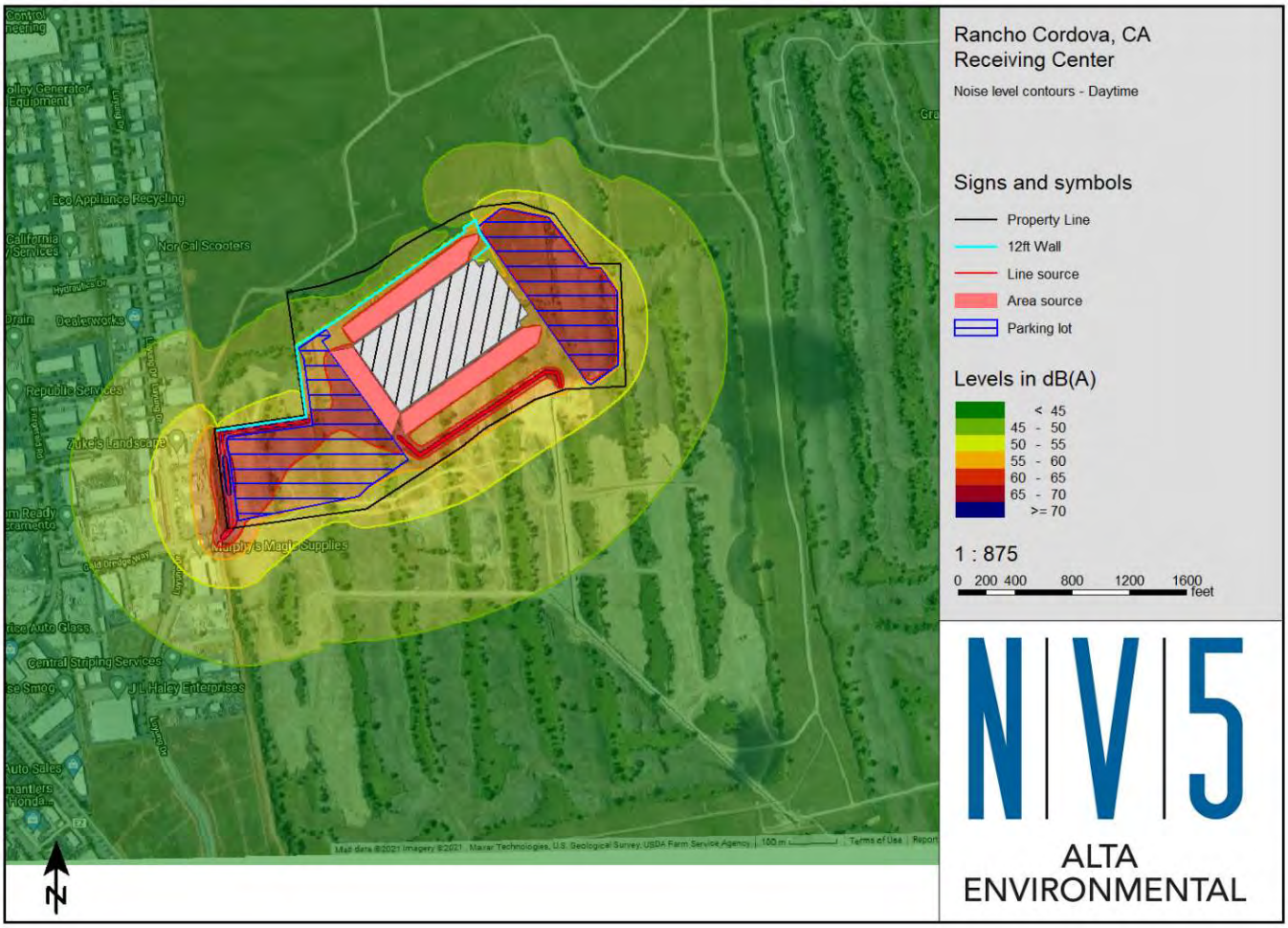
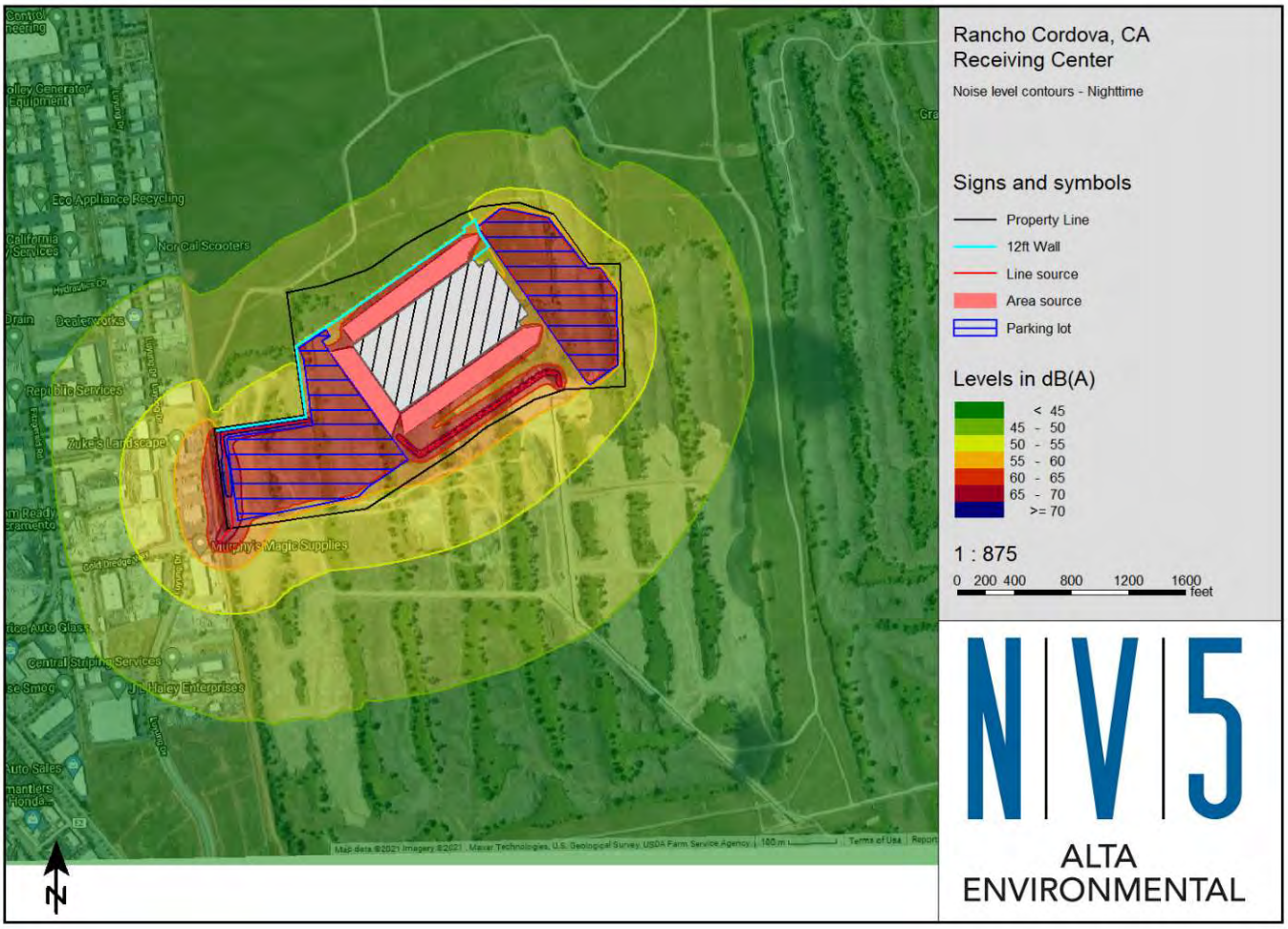


Exhibit F – Operations Noise Level Contours (Nighttime)



The City of Rancho Cordova has established noise standards relevant to operational activities associated with the proposed site. For this analysis, the numerical standard from the City of Rancho Cordova General Plan was used in order to evaluate the acoustical impact of the site on the nearest sensitive receptors. The City of Rancho Cordova General Plan has a maximum noise level of 55 dBA during the daytime and 45 dBA at nighttime as hourly Leq for new projects affected by or including non-transportation sources (see Table 10). However, The City may impose noise level standards which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels.

For the purpose of this study, the noise limits stated in the General Plan (55 dBA for daytime and 45 dBA for nighttime) were used as the ambient noise levels. Predicted noise levels are anticipated to range between 39.3 and 46.0 dBA during the daytime, and between 40.3 and 47.9 dBA at nighttime at the nearest sensitive receptors without any sound attenuation. However, as explained above, once the vacant land on the south is developed, the predicted noise levels for the south receptors would be reduced by a minimum of 15 dBA. Additionally, because the model calculates the predicted noise levels as if the maximum number of trucks and cars are all active at the same time, the predicted noise levels represent the worst-case scenario, which is unlikely to happen as the peak hour for trucks is not expected to be the peak hour for cars and vice versa. Therefore, the predicted noise levels for the north receptors are not expected to exceed the daytime or nighttime noise limits. Thus, the predicted daytime and nighttime noise levels for all sensitive receptors near the site will be within the limits set forth by the City.

Backup alarms can be a cause of disturbance. Trucks at the Project site would also utilize backup alarms during loading/unloading activities and parking. Backup alarms produce a typical noise level of 97 dBA at 3.28 feet. Based on distance attenuation, at 625 feet (distance from the closest residence north of the site to the north trailer storage), backup alarms noise levels would be approximately 51.4 dBA without any sound attenuation. The proposed sound wall will provide a minimum of 5-10 dBA sound attenuation.

The backup alarms noise levels would be approximately 45.3 dBA at 1,260 feet, where the closest residence south of the site is located relative to the south trailer storage. As discussed above, the Rio Del Oro Specific Plan proposes that buildings will be constructed south of the site and a sound barrier will be installed between any industrial facility that is located within 2,500 feet and within the direct line of sight of a residential land use area. With these in place, the south sensitive receptors will be shielded from the noise and the predicted noise level will be within the noise standards set by the City.

Based on this noise analysis of the operational on-site stationary noise, the acoustical impact of the stationary noise for the proposed project would be **less than significant**.

B. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

Ground-borne Vibration

Ground-borne Vibration During Construction

This section focuses on the assessment of potential impacts associated with construction-generated vibration. As mentioned above, the site is currently located on undeveloped land. Future developments and land usage have been proposed according to the Rio Del Oro Specific Plan. If the proposed residential neighborhoods and school are constructed before the construction of the proposed Receiving Center starts, the nearest sensitive receptors may be impacted.

Neither the City of Rancho Cordova nor the County of Sacramento have adopted significance thresholds for vibration. Vibration may be expressed through a number of parameters that describe the displacement, the vibration velocity, or acceleration experienced by an object. In ambient applications, a root-mean square vibration velocity of 0.04 inches per second is often taken as a possible nuisance level (Caltrans 2020). Project construction vibration levels using the following vibration assessment methods defined by Caltrans. To describe the human response (annoyance) associated with vibration impacts Caltrans provides the following equation:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

The primary source of vibration during construction would be from the operation of a vibratory roller. As referenced in the Transit Noise and Vibration Impact Assessment (Federal Transit Administration 2018), a vibratory roller would create a vibration level of 0.21 inch per second PPV at 25 feet. Construction equipment are anticipated to be at a minimum distance of 220 feet from the closest sensitive receptor. At 220 feet, where the nearest sensitive receptor would be located, a vibratory roller would create vibration level of 0.008 in/sec, which would be below the nuisance threshold. Other construction equipment expected to be used as part of this project has lower vibration levels and therefore, will not be a nuisance.

Therefore, vibration impacts will be **less than significant.**

Ground-borne Vibration During Operations

The project is not expected to be operating heavy-duty industrial equipment during the operations phase. Trucks and cars are not expected to generate any perceptible vibration levels outside of the right-of-way. There are no operational sources of vibration that would generate vibration levels that exceed 0.04 in/sec. Therefore, the proposed project would result in a **less than significant** impact related to operational vibration.

C. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Permanent Noise Impact Analysis

Traffic Source Permanent Noise Impact

The proposed site is located within the Plan Area of Rio Del Oro. Per the EIR of the Plan Area of Rio Del Oro, because future growth is expected to surround the Rio del Oro with traffic-generating development by 2030, resulting in greater areawide and on-site noise levels, full buildout of development on the Rio Del Oro itself would not contribute to noticeable (i.e., 3 dBA or greater) increases in ambient noise levels at noise-sensitive land uses that exceed land use compatibility noise criteria. This direct impact is considered **less than significant**. No indirect impacts would occur. Therefore, no mitigation is required.

Stationary Source Permanent Noise Impact

As described above in the impact assessment for criteria A, increases in noise levels related to stationary noise sources for the proposed project would not substantially elevate the existing ambient noise environment as the predicted noise levels for all receivers expected to be below the ambient noise levels. The noise level increase is expected to be below 3 dB and therefore, would be **less than significant** in the vicinity of the site.

D. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Temporary Noise Impact from Construction

The City of Rancho Cordova does not have established maximum allowable noise levels, but the City's municipal code defines the following hours during which construction activities across the street or right away from a residential area are permitted: 6 a.m. and 8 p.m. Monday through Friday, or between 7 a.m. and 8 p.m. on Saturday and Sunday. The City's General Plan and RDOSP EIR define the construction hours as 7 a.m. and 7 p.m. Monday through Friday, or between 8 a.m. and 6 p.m. on Saturday and Sunday. Construction of the proposed project is expected to take approximately 12 months to complete. Construction is expected to occur from June 2022 through June 2023, during permissible hours.

The site is currently located on undeveloped land. Future developments and land usage have been proposed according to the Rio Del Oro Specific Plan. If the proposed residential neighborhoods and school are constructed before the construction of the proposed Receiving Center starts, the nearest sensitive receptors may be impacted. Noise impacts form the construction activities were evaluated by estimating the typical noise levels for each type of construction equipment using the Federal Highway Administration (FHWA) roadway construction model (RCNM) and comparing the Leq at the nearest sensitive receptors (Loc 1

through Loc 8) with the acceptable noise standards. Construction of the project would be done in four phases: grading, building construction, paving, and architectural coating. Typical construction equipment described below will be used for the project. Table 17 lists the equipment expected to be used during the construction phase.

Estimated usage was estimated for each expected equipment from the construction activities as shown in Table 16. Each type of construction equipment produces maximum noise levels (Lmax) at a reference distance of 50 feet from the noise source.

Table 16 - Maximum Noise Levels and Estimated Usage of Typical Construction Equipment

Type of Equipment	Estimated Usage (%)	Lmax at 50 feet (dBA)
Air Compressors	40	77.7
Excavators	40	80.7
Cranes	16	80.6
Forklifts	40	85.0
Generators	50	80.6
Pavers	50	77.2
Rollers	20	80.0
Rubber Tired Dozers	40	81.7
Tractors/Loaders/ Backhoes	40	77.6
Graders	40	85.0
Paving Equipment/ Compactor (ground)	20	83.2
Scrapers	40	83.6
Welders	40	74.0

Noise levels generated by construction equipment (or by any point source) decrease at a rate of approximately 6 dB per doubling of distance from the source. There are seven residential areas and a school campus area within the vicinity of the site:

- Locations 1 through 4 represent the single-family residential zone (ranging from approximately 220 feet to 655 feet north from the site)
- Location 5 represents the medium density residential zone (approximately 1,135 feet north from the site)
- Location 6 represents the single-family residential zone (approximately 980 feet south from the site)
- Location 7 represents the medium density residential zone (approximately 975 feet south from the site)

- Location 8 represents the school campus zone (approximately 825 feet south from the site)

The following map, Exhibit G, shows the location of the nearest sensitive receptors and their distances to the site.

Using the RCNM, the noise levels were calculated for each receptor from the construction equipment, as presented in Table 17.

Exhibit G – Sensitive Receptor Locations and Distances to Site Boundary



Table 17 - Predicted Construction Noise Levels at Nearest Sensitive Receptors

Phase	Expected Equipment	Daytime Ambient Noise Levels (Leq; dBA)	Predicted Noise Levels (Leq; dBA)								Significant Impact?
			Loc 1 SF Home Site (220 ft)[1]	Loc 2 SF Home Site (295 ft)[1]	Loc 3 SF Home Site (430 ft)[1]	Loc 4 SF Home Site (655 ft)[1]	Loc 5 SF Home Site (1135 ft)[1]	Loc 6 MD Home Site (980 ft)[1]	Loc 7 MD Home Site (975 ft)[1]	Loc 8 High School Site (825 ft)[1]	
Grading	Excavators, Rubber Tired Dozers, Graders, Tractors/Loaders/Backhoes, Scrapers	55.0	72.5	70.0	66.7	63.1	58.3	59.6	59.6	61.0	No
Building Construction	Crane, Generators, Welders, Forklift, Tractors/Loaders/Backhoes	55.0	70.8	68.3	65.0	61.4	56.6	57.9	57.9	59.4	No
Paving	Paver, Roller, Paving Equipment	55.0	66.6	64.0	60.8	57.1	52.3	53.6	53.7	55.1	No
Architectural Coating	Air compressors	55.0	60.8	58.3	55.0	51.3	46.6	47.8	47.9	49.3	No

[1] Distance between receptor and the nearest edge of the construction site

As described in Table 17, the highest predicted noise level from construction activities is 72.5 dBA measured at the Location 1 SF Home Site during the grading phase. The City does not provide any noise level limits for construction noise levels. The noise levels are expected to be below the 80 dBA threshold from the Federal Transit Administration (FTA).

Therefore, construction noise impacts are expected to be **less than significant** during all construction phases.

E. For a project 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, expose people residing or working in the project area to excessive noise levels.

Mather Airport is approximately 1.8 miles southwest of the site. The project site is an industrial site with truck activities. The employees are expected to work inside the industrial building and in the yard assisting with trucks. The activity at the project site is not expected to be noise sensitive and therefore, no impact would occur, and no mitigation measures are necessary.

F. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The project site is not within 2 miles of a private airstrip or heliport. Therefore, no impact would occur, and no mitigation measures are required.

6. Mitigation Measure

No mitigation measures are required for this project.

7. References

- California Department of Transportation, Technical Noise Supplement, September 2013
- California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, April 2020
- Sacramento County General Plan, Noise Element, Section II, December 2017.
- Sacramento County Code, Sections 6.68.070 and 6.68.090.
- Rancho Cordova Municipal Code, Title 6, Chapter 6.68, Sections 010, 070, 090, and 110.
- Rancho Cordova Municipal Code, Chapter 16.18, Section 205.
- Rancho Cordova Municipal Code, Chapter 23.737, Sections 010, 030 and 050.
- Rancho Cordova General Plan, XII – Noise Element, June 2006.
- Rio Del Oro Specific Plan, Section 3.3, August 2016.
- Federal Highway Administration, *Roadway Noise Construction Model*, Software Version 1.1.
- Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, September 2018.
- Soundplan Essential 5.1, *Noise Sources: Parking Noise*, 2017.

APPENDIX A – SoundPlan Essential – Contributions

Contribution Levels of the Receivers

Source name		Level Day	Level Night
		dB(A)	
Loc1 SF Home Site	GF	43.4	45.5
Employee Parking		32.1	32.1
North Loading Dock		36.4	38.8
South Loading Dock		23.8	26.2
Trailer Storage		36.8	38.3
Truck Entrance		30.8	33.2
Truck Path		35.1	37.6
Truck Path Out		28.7	31.1
Truck Queue		32.9	35.3
West Loading Dock		35.5	38.0
Loc1 SF Home Site	1.Fl	43.0	45.1
Employee Parking		31.9	31.9
North Loading Dock		35.8	38.3
South Loading Dock		23.9	26.3
Trailer Storage		36.3	37.8
Truck Entrance		31.6	34.0
Truck Path		34.6	37.0
Truck Path Out		28.9	31.3
Truck Queue		32.3	34.7
West Loading Dock		35.1	37.6
Loc2 SF Home Site	GF	43.4	45.5
Employee Parking		33.2	33.2
North Loading Dock		37.8	40.2
South Loading Dock		23.4	25.8
Trailer Storage		36.4	37.9
Truck Entrance		30.5	32.9
Truck Path		33.8	36.2
Truck Path Out		28.7	31.1
Truck Queue		31.7	34.1
West Loading Dock		35.7	38.1
Loc2 SF Home Site	1.Fl	43.0	45.1
Employee Parking		32.9	32.9
North Loading Dock		37.2	39.6
South Loading Dock		23.5	25.9
Trailer Storage		35.9	37.4
Truck Entrance		31.0	33.5
Truck Path		33.4	35.8
Truck Path Out		28.9	31.4
Truck Queue		31.1	33.6
West Loading Dock		35.2	37.6
Loc3 SF Home Site	GF	43.3	45.3
Employee Parking		36.2	36.2
North Loading Dock		39.6	42.0
South Loading Dock		23.1	25.5
Trailer Storage		34.6	36.1
Truck Entrance		29.3	31.8
Truck Path		31.4	33.8
Truck Path Out		28.5	31.0
Truck Queue		29.4	31.8
West Loading Dock		31.2	33.7
Loc3 SF Home Site	1.Fl	42.8	44.7
Employee Parking		35.8	35.8
North Loading Dock		38.9	41.3
South Loading Dock		23.3	25.7
Trailer Storage		34.1	35.6
Truck Entrance		28.9	31.3
Truck Path		31.1	33.5
Truck Path Out		29.1	31.5
Truck Queue		29.0	31.4
West Loading Dock		30.8	33.3
Loc4 SF Home Site	GF	43.2	44.2
Employee Parking		41.4	41.4

Contribution Levels of the Receivers

Source name		Level Day	Night
		dB(A)	
North Loading Dock		35.1	37.6
South Loading Dock		25.7	28.1
Trailer Storage		30.6	32.1
Truck Entrance		24.4	26.8
Truck Path		27.0	29.4
Truck Path Out		30.1	32.6
Truck Queue		25.4	27.8
West Loading Dock		25.0	27.5
Loc4 SF Home Site	1.Fl	43.2	44.1
Employee Parking		41.6	41.6
North Loading Dock		34.5	36.9
South Loading Dock		25.7	28.1
Trailer Storage		30.3	31.8
Truck Entrance		25.1	27.5
Truck Path		26.7	29.1
Truck Path Out		30.0	32.4
Truck Queue		25.1	27.6
West Loading Dock		24.9	27.3
Loc5 MD Home Site	GF	39.3	40.3
Employee Parking		37.2	37.2
North Loading Dock		30.1	32.5
South Loading Dock		25.2	27.6
Trailer Storage		27.9	29.4
Truck Entrance		22.2	24.7
Truck Path		23.9	26.3
Truck Path Out		26.7	29.1
Truck Queue		22.6	25.1
West Loading Dock		22.5	24.9
Loc5 MD Home Site	1.Fl	40.0	40.9
Employee Parking		38.1	38.1
North Loading Dock		29.7	32.1
South Loading Dock		26.7	29.1
Trailer Storage		27.8	29.3
Truck Entrance		22.7	25.2
Truck Path		23.7	26.1
Truck Path Out		28.3	30.7
Truck Queue		22.5	24.9
West Loading Dock		22.3	24.8
Loc6 SF Home Site	GF	45.3	47.2
Employee Parking		36.0	36.0
North Loading Dock		23.1	25.6
South Loading Dock		37.3	39.7
Trailer Storage		39.3	40.8
Truck Entrance		34.0	36.4
Truck Path		31.9	34.3
Truck Path Out		38.1	40.5
Truck Queue		29.6	32.0
West Loading Dock		36.2	38.6
Loc6 SF Home Site	1.Fl	45.1	47.1
Employee Parking		35.6	35.6
North Loading Dock		23.0	25.5
South Loading Dock		36.8	39.2
Trailer Storage		38.9	40.4
Truck Entrance		33.6	36.0
Truck Path		32.6	35.1
Truck Path Out		37.5	39.9
Truck Queue		33.9	36.4
West Loading Dock		35.7	38.1
Loc7 MD Home Site	GF	46.0	47.9
Employee Parking		38.9	38.9
North Loading Dock		22.8	25.2
South Loading Dock		39.6	42.0
Trailer Storage		38.2	39.7

Contribution Levels of the Receivers

Source name		Level Day	Level Night
		dB(A)	
Truck Entrance		32.0	34.5
Truck Path		31.9	34.3
Truck Path Out		39.7	42.1
Truck Queue		27.8	30.2
West Loading Dock		34.8	37.2
Loc7 MD Home Site	1.Fl	45.6	47.5
Employee Parking		38.4	38.4
North Loading Dock		22.7	25.2
South Loading Dock		39.0	41.4
Trailer Storage		37.8	39.3
Truck Entrance		31.7	34.1
Truck Path		32.3	34.7
Truck Path Out		39.0	41.4
Truck Queue		32.2	34.7
West Loading Dock		34.3	36.7
Loc8 High School Site	GF	45.3	47.0
Employee Parking		40.3	40.3
North Loading Dock		22.9	25.4
South Loading Dock		38.5	41.0
Trailer Storage		36.2	37.7
Truck Entrance		30.2	32.6
Truck Path		30.9	33.4
Truck Path Out		38.8	41.2
Truck Queue		26.0	28.4
West Loading Dock		31.1	33.5
Loc8 High School Site	1.Fl	44.9	46.6
Employee Parking		39.8	39.8
North Loading Dock		22.9	25.3
South Loading Dock		38.0	40.4
Trailer Storage		35.8	37.3
Truck Entrance		29.9	32.3
Truck Path		31.2	33.7
Truck Path Out		38.1	40.6
Truck Queue		30.5	32.9
West Loading Dock		30.7	33.1

APPENDIX B – RCNM Construction Model

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/17/2021
Case Description: Phase 1 - Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 1 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	220	0
Dozer	No	40		81.7	220	0
Grader	No	40	85		220	0
Backhoe	No	40		77.6	220	0
Scraper	No	40		83.6	220	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	67.8	63.9
Dozer	68.8	64.8
Grader	72.1	68.2
Backhoe	64.7	60.7
Scraper	70.7	66.7
Total	72.1	72.5

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 2 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	295	0
Dozer	No	40		81.7	295	0
Grader	No	40	85		295	0
Backhoe	No	40		77.6	295	0
Scraper	No	40		83.6	295	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	65.3	61.3
Dozer	66.3	62.3
Grader	69.6	65.6
Backhoe	62.1	58.2
Scraper	68.2	64.2
Total	69.6	70

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 3 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	430	0
Dozer	No	40		81.7	430	0
Grader	No	40	85		430	0
Backhoe	No	40		77.6	430	0
Scraper	No	40		83.6	430	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	62	58
Dozer	63	59
Grader	66.3	62.3
Backhoe	58.9	54.9
Scraper	64.9	60.9
Total	66.3	66.7

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 4 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	655	0
Dozer	No	40		81.7	655	0
Grader	No	40	85		655	0
Backhoe	No	40		77.6	655	0
Scraper	No	40		83.6	655	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	58.4	54.4
Dozer	59.3	55.3
Grader	62.7	58.7
Backhoe	55.2	51.2
Scraper	61.2	57.3
Total	62.7	63.1

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 5 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	1135	0
Dozer	No	40		81.7	1135	0
Grader	No	40	85		1135	0
Backhoe	No	40		77.6	1135	0
Scraper	No	40		83.6	1135	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	53.6	49.6
Dozer	54.5	50.6
Grader	57.9	53.9
Backhoe	50.4	46.5
Scraper	56.5	52.5
Total	57.9	58.3

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 6 MD Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	980	0
Dozer	No	40		81.7	980	0
Grader	No	40	85		980	0
Backhoe	No	40		77.6	980	0
Scraper	No	40		83.6	980	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	54.9	50.9
Dozer	55.8	51.8
Grader	59.2	55.2
Backhoe	51.7	47.7
Scraper	57.7	53.8
Total	59.2	59.6

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 7 MD Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	975	0
Dozer	No	40		81.7	975	0
Grader	No	40	85		975	0
Backhoe	No	40		77.6	975	0
Scraper	No	40		83.6	975	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	54.9	50.9
Dozer	55.9	51.9
Grader	59.2	55.2
Backhoe	51.8	47.8
Scraper	57.8	53.8
Total	59.2	59.6

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 8 High School Site	Commercial	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	825	0
Dozer	No	40		81.7	825	0
Grader	No	40	85		825	0
Backhoe	No	40		77.6	825	0
Scraper	No	40		83.6	825	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	56.4	52.4
Dozer	57.3	53.3
Grader	60.7	56.7
Backhoe	53.2	49.2
Scraper	59.2	55.3
Total	60.7	61

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/17/2021
Case Description: Phase 2 - Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 1 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	220	0
Generator	No	50		80.6	220	0
Welder / Torch	No	40		74	220	0
Backhoe	No	40		77.6	220	0
Forklift	No	40	85		220	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Crane	67.7	59.7
Generator	67.8	64.8
Welder / Torch	61.1	57.2
Backhoe	64.7	60.7
Forklift	72.1	68.2
Total	72.1	70.8

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 2 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	295	0
Generator	No	50		80.6	295	0
Welder / Torch	No	40		74	295	0
Backhoe	No	40		77.6	295	0
Forklift	No	40	85		295	0

Results

Equipment	Calculated (dBA) *Lmax	Leq
Crane	65.1	57.2
Generator	65.2	62.2
Welder / Torch	58.6	54.6
Backhoe	62.1	58.2
Forklift	69.6	65.6
Total	69.6	68.3

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 3 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	430	0
Generator	No	50		80.6	430	0
Welder / Torch	No	40		74	430	0
Backhoe	No	40		77.6	430	0
Forklift	No	40	85		430	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	61.9	53.9
Generator	61.9	58.9
Welder / Torch	55.3	51.3
Backhoe	58.9	54.9
Forklift	66.3	62.3
Total	66.3	65

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 4 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	655	0
Generator	No	50		80.6	655	0
Welder / Torch	No	40		74	655	0
Backhoe	No	40		77.6	655	0
Forklift	No	40	85		655	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	58.2	50.2
Generator	58.3	55.3
Welder / Torch	51.7	47.7
Backhoe	55.2	51.2
Forklift	62.7	58.7
Total	62.7	61.4

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 5 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	1135	0
Generator	No	50		80.6	1135	0
Welder / Torch	No	40		74	1135	0
Backhoe	No	40		77.6	1135	0
Forklift	No	40	85		1135	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	53.4	45.5
Generator	53.5	50.5
Welder / Torch	46.9	42.9
Backhoe	50.4	46.5
Forklift	57.9	53.9
Total	57.9	56.6

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 6 MD Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	980	0
Generator	No	50		80.6	980	0
Welder / Torch	No	40		74	980	0
Backhoe	No	40		77.6	980	0
Forklift	No	40	85		980	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	54.7	46.7
Generator	54.8	51.8
Welder / Torch	48.2	44.2
Backhoe	51.7	47.7
Forklift	59.2	55.2
Total	59.2	57.9

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 7 MD Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	975	0
Generator	No	50		80.6	975	0
Welder / Torch	No	40		74	975	0
Backhoe	No	40		77.6	975	0
Forklift	No	40	85		975	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	54.7	46.8
Generator	54.8	51.8
Welder / Torch	48.2	44.2
Backhoe	51.8	47.8
Forklift	59.2	55.2
Total	59.2	57.9

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 8 High School Site	Commercial	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	825	0
Generator	No	50		80.6	825	0
Welder / Torch	No	40		74	825	0
Backhoe	No	40		77.6	825	0
Forklift	No	40	85		825	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	56.2	48.2
Generator	56.3	53.3
Welder / Torch	49.7	45.7
Backhoe	53.2	49.2
Forklift	60.7	56.7
Total	60.7	59.4

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/17/2021
Case Description: Phase 3 - Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 1 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	220	0
Roller	No	20		80	220	0
Compactor (ground)	No	20		83.2	220	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	64.4	61.3
Roller	67.1	60.1
Compactor (ground)	70.4	63.4
Total	70.4	66.6

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 2 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	295	0
Roller	No	20		80	295	0
Compactor (ground)	No	20		83.2	295	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	61.8	58.8
Roller	64.6	57.6
Compactor (ground)	67.8	60.8
Total	67.8	64

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 3 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	430	0
Roller	No	20		80	430	0
Compactor (ground)	No	20		83.2	430	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	58.5	55.5
Roller	61.3	54.3
Compactor (ground)	64.5	57.6
Total	64.5	60.8

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 4 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	655	0
Roller	No	20		80	655	0
Compactor (ground)	No	20		83.2	655	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	54.9	51.9
Roller	57.7	50.7
Compactor (ground)	60.9	53.9
Total	60.9	57.1

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 5 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	1135	0
Roller	No	20		80	1135	0
Compactor (ground)	No	20		83.2	1135	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	50.1	47.1
Roller	52.9	45.9
Compactor (ground)	56.1	49.1
Total	56.1	52.3

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 6 MD Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	980	0
Roller	No	20		80	980	0
Compactor (ground)	No	20		83.2	980	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	51.4	48.4
Roller	54.2	47.2
Compactor (ground)	57.4	50.4
Total	57.4	53.6

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 7 MD Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	975	0
Roller	No	20		80	975	0
Compactor (ground)	No	20		83.2	975	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	51.4	48.4
Roller	54.2	47.2
Compactor (ground)	57.4	50.4
Total	57.4	53.7

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 8 High School Site	Commercial	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	825	0
Roller	No	20		80	825	0
Compactor (ground)	No	20		83.2	825	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	52.9	49.9
Roller	55.7	48.7
Compactor (ground)	58.9	51.9
Total	58.9	55.1

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/17/2021
Case Description: Phase 4 - Architectural Coating

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 1 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	220	0

Results
Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	64.8	60.8
Total	64.8	60.8

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 2 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	295	0

Results
Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	62.3	58.3
Total	62.3	58.3

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 3 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	430	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Compressor (air)		59	55
	Total	59	55

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 4 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	655	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Compressor (air)		55.3	51.3
	Total	55.3	51.3

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 5 SF Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	1135	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	50.5	46.6
Total	50.5	46.6

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 6 MD Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	980	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	51.8	47.8
Total	51.8	47.8

*Calculated Lmax is the Loudest value.

---- Receptor #7 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 7 MD Home Site	Residential	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	975	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	51.9	47.9
Total	51.9	47.9

*Calculated Lmax is the Loudest value.

---- Receptor #8 ----

Description	Land Use	Baselines (dBA) Daytime
Loc 8 High School Site	Commercial	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	825	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	53.3	49.3
Total	53.3	49.3

*Calculated Lmax is the Loudest value.

APPENDIX C – Trip Generation Count

Traffic Schedule

Cars			
Average Weekday			
	In	Out	Total
00:00	10	20	30
01:00	3	10	13
02:00	3	6	9
03:00	5	17	22
04:00	5	26	31
05:00	66	322	388
06:00	46	30	76
06:15	97	26	123
06:30	159	32	191
06:45	201	38	239
07:00	40	17	57
07:15	12	8	20
07:30	10	5	15
07:45	12	4	16
08:00	21	21	42
09:00	15	16	31
10:00	15	16	31
11:00	40	44	84
12:00	23	38	61
13:00	15	31	46
14:00	14	31	45
15:00	10	39	49
16:00	18	41	59
17:00	15	12	27
17:15	21	56	77
17:30	25	265	290
17:45	29	71	100
18:00	52	31	83
18:15	91	21	112
18:30	128	31	159
18:45	146	36	182
19:00	59	30	89
20:00	14	21	35
21:00	16	17	33
22:00	6	9	15
23:00	21	27	48
	1,464	1,464	2,928

Trucks			
Average Weekday			
	In	Out	Total
00:00	22	22	44
01:00	25	25	49
02:00	23	23	47
03:00	18	18	37
04:00	20	20	40
05:00	19	19	38
06:00	4	3	7
06:15	4	4	8
06:30	4	4	9
06:45	4	4	9
07:00	3	3	6
07:15	3	3	6
07:30	3	3	6
07:45	3	3	6
08:00	9	9	17
09:00	10	10	20
10:00	13	13	26
11:00	11	12	23
12:00	14	14	28
13:00	10	10	20
14:00	9	9	17
15:00	9	9	17
16:00	7	7	15
17:00	3	3	6
17:15	2	1	3
17:30	2	1	3
17:45	2	1	3
18:00	1	2	3
18:15	1	2	3
18:30	1	2	3
18:45	1	2	3
19:00	4	4	9
20:00	4	4	8
21:00	6	6	12
22:00	13	13	26
23:00	14	15	29
	302	302	604

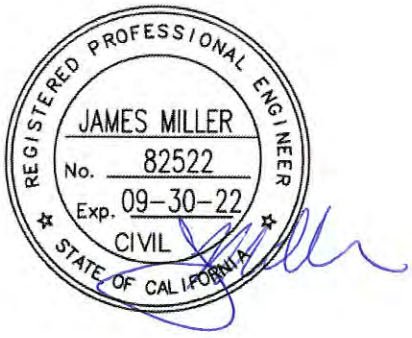
Total			
Average Weekday			
	In	Out	Total
00:00	30	38	68
01:00	27	33	60
02:00	26	28	54
03:00	22	32	55
04:00	24	41	66
05:00	72	279	352
06:00	41	27	68
06:15	83	25	108
06:30	133	30	163
06:45	167	35	202
07:00	35	17	52
07:15	13	10	22
07:30	11	7	18
07:45	13	6	19
08:00	26	26	51
09:00	23	23	45
10:00	25	26	51
11:00	43	47	91
12:00	33	45	78
13:00	22	35	57
14:00	20	34	54
15:00	17	40	57
16:00	22	41	63
17:00	15	13	28
17:15	19	47	66
17:30	22	216	238
17:45	25	59	84
18:00	43	27	70
18:15	75	19	94
18:30	105	27	132
18:45	119	31	150
19:00	52	29	81
20:00	15	21	36
21:00	19	20	39
22:00	18	20	38
23:00	31	36	68
	1,487	1,489	2,976

FINAL LOCAL TRANSPORTATION ANALYSIS FOR

Project Sunrise Receiving Center

DATE:
February 16, 2022

LOCATION:
Rancho Cordova, California



PREPARED FOR:
City of Rancho Cordova

PREPARED BY:
NV5 Engineers & Consultants
15092 Avenue of Science. Suite 200
San Diego, CA 92128

NV5
nv5.com

Executive Summary

The proposed receiving center will occupy an 82-acre vacant parcel that is part of Phase 5 of the Rio Del Oro Specific Plan. The project is consistent with the land use designation in the adopted Rio Del Oro Specific Plan and Environmental Impact Report (EIR) for Business Park / Industrial Park land use. The project will construct a warehouse consisting of approximately 629,186 square feet. The warehouse will be used as an inventory receiving and storage center. Figure 1 indicates the approximate location of the project site. The project's site plan is provided in Appendix A.

The proposed project is anticipated to generate 3,532 daily vehicle trips. Site access will be provided by six driveways. Four driveways are proposed for personal vehicles and two driveways are proposed for line-haul trucks. The driveways are anticipated to operate efficiently as side street stop-controlled intersections. A total of 3,532 daily trips will be generated by the site, with 132 (86 entering, 46 exiting) during the AM standard peak hour and 510 (99 entering, 411 exiting) during the PM standard peak hour. The project is anticipated to be complete by 2023.

Prior to July 1, 2020, the California Environmental Quality Act (CEQA) required development projects to analyze transportation related environmental impacts using level of service (LOS). The Rio Del Oro Specific Plan Final Environmental Impact Report and Final Environmental Impact Statement (FEIR/FEIS) was completed in June 2010. Transportation related environmental impacts included in the FEIR/FEIS were analyzed using level of service (LOS). Senate Bill 743 (SB 743) went into effect on July 1, 2020. SB 743 requires jurisdictions to shift from analyzing transportation related environmental impacts using LOS to using vehicle miles traveled (VMT). NV5 determined CEQA requirements were satisfied as part of the previous FEIR/FEIS and a VMT analysis was not required. To satisfy local requirements this local transportation analysis (LTA) was developed in accordance with the Sacramento County Traffic Impact Guidelines, 2020 and in coordination with City staff. An approved scoping document is provided in Appendix A.

The LTA includes level of service analyses for the No-Build (2023), Build (2023), and Build+(2023) scenarios. Analyses were completed at the following intersections utilizing Synchro 11 software:

1. White Rock Road / Sunrise Boulevard
2. Sunrise Boulevard / International Drive
3. Sunrise Boulevard / Fitzgerald Road
4. Sunrise Boulevard / Mechanical Drive
5. White Rock Road / Gold Valley Drive
6. White Rock Road / Fitzgerald Road
7. Gold Dredge Way / Fitzgerald Road
8. Gold Dredge Way / Luyung Drive
9. White Rock Road / Rancho Cordova Parkway
10. International Drive / Rancho Cordova Parkway
11. Rancho Cordova Parkway / Gold Dredge Way

D1 - D6. Site driveways (6)

All intersections operate acceptably under the No-Build (2023) and Build (2023) Conditions. Under the Build+ (2023) Condition, all intersections except White Rock Road at Sunrise Boulevard also operate acceptably. Restriping the westbound White Rock Road approach to Sunrise Boulevard to change the rightmost through lane to a dedicated second right-turn lane is one potential solution allowing that intersection to operate acceptably until Rancho Cordova Road can be extended northward to US 50 or other roadway network improvements are completed. All driveways perform at a LOS A or better, indicating minimal delays when entering and exiting the site.

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A. Introduction

The proposed receiving center will occupy an 82-acre vacant parcel that is part of Phase 5 of the Rio Del Oro Specific Plan. The project is consistent with the land use designation in the adopted Rio Del Oro Specific Plan and Environmental Impact Report (EIR) for Business Park / Industrial Park land use. The project will construct a warehouse consisting of approximately 629,186 square feet. The warehouse will be used as an inventory receiving and storage center. Figure 1 indicates the approximate location of the project site. The project's site plan is provided in Appendix A.

NV5 Inc., has been retained to prepare this local transportation analysis (LTA) report to determine the amount of traffic expected to be added to the adjacent roadway network due to the project and identify any improvements necessary to alleviate any capacity or queuing issues resulting from the additional of that traffic to the roadway network. The Rio Del Oro Specific Plan Final Environmental Impact Report and Final Environmental Impact Statement (FEIR/FEIS) was completed in June 2010. Transportation related environmental impacts included in the FEIR/FEIS were analyzed using level of service (LOS) per CEQA guidelines at that time. Senate Bill 743 (SB 743) went into effect on July 1, 2020, requiring jurisdictions to shift from analyzing transportation related environmental impacts using LOS to using vehicle miles traveled (VMT). NV5 determined the CEQA requirements were satisfied as part of the previous CEQA guidelines and FEIR/FEIS and a VMT analysis was not required.

This report was developed in coordination with the City and reflects analysis requirements based on the approved scoping agreement and later revisions to the truck trip assignments. The site and surrounding roadway network were inspected to obtain an existing inventory of roadway geometry, traffic control, and surrounding land uses. Existing traffic conditions were determined by obtaining intersection turning movement counts at key locations in the vicinity of the proposed project during the weekday morning and weekday evening peak hours.

- Site generated trips were assigned to the local roadway network based on existing local and regional land uses.
- Capacity analyses were conducted for No-Build (2023), Build (2023), and Build+ (2023) scenarios throughout the study area.
- Potential improvements were identified to alleviate any operational deficiencies, as necessary.

A.1. Project Overview

The site, currently undeveloped, will be developed with a 629,186 square foot receiving center. The property is zoned for Industrial Park use, which allows for the receiving center. The targeted build-out date for the new facility is 2023. This study documents operational deficiencies resulting from the proposed development on the surrounding existing and future roadway networks. The study also documents major inputs and assumptions behind trip generation, trip distribution, trip assignments, future roadways as part of the Rio del Oro Specific Plan, and details any recommended infrastructure

improvements to address operational deficiencies within the study area. Turning movement counts were collected by National Data & Surveying Services (NDS) for the applicable intersections. TMCs were collected on July 22, 2021, during the windows of 7-9AM and 4-6PM to establish the existing peak hour volumes. TMCs were collected at the intersection of Sunrise Boulevard and Mechanical Drive on January 4, 2022, from 6-8:30AM and 4:30-7:30PM. The results can be found in Appendix B.

A.2. Site Location

The proposed site is located in the City of Rancho Cordova and will occupy an undeveloped land parcel. The project will be located to the west of the future Rancho Cordova Parkway between International Drive and Gold Dredge Way. The Specific Plan identifies the land use in the area as mix of industrial, business parks, and residential properties. Figure 1 illustrates the site's location within the City of Rancho Cordova. The site plan is provided in Figure 2 and in Appendix A.

Figure 1. Vicinity Map

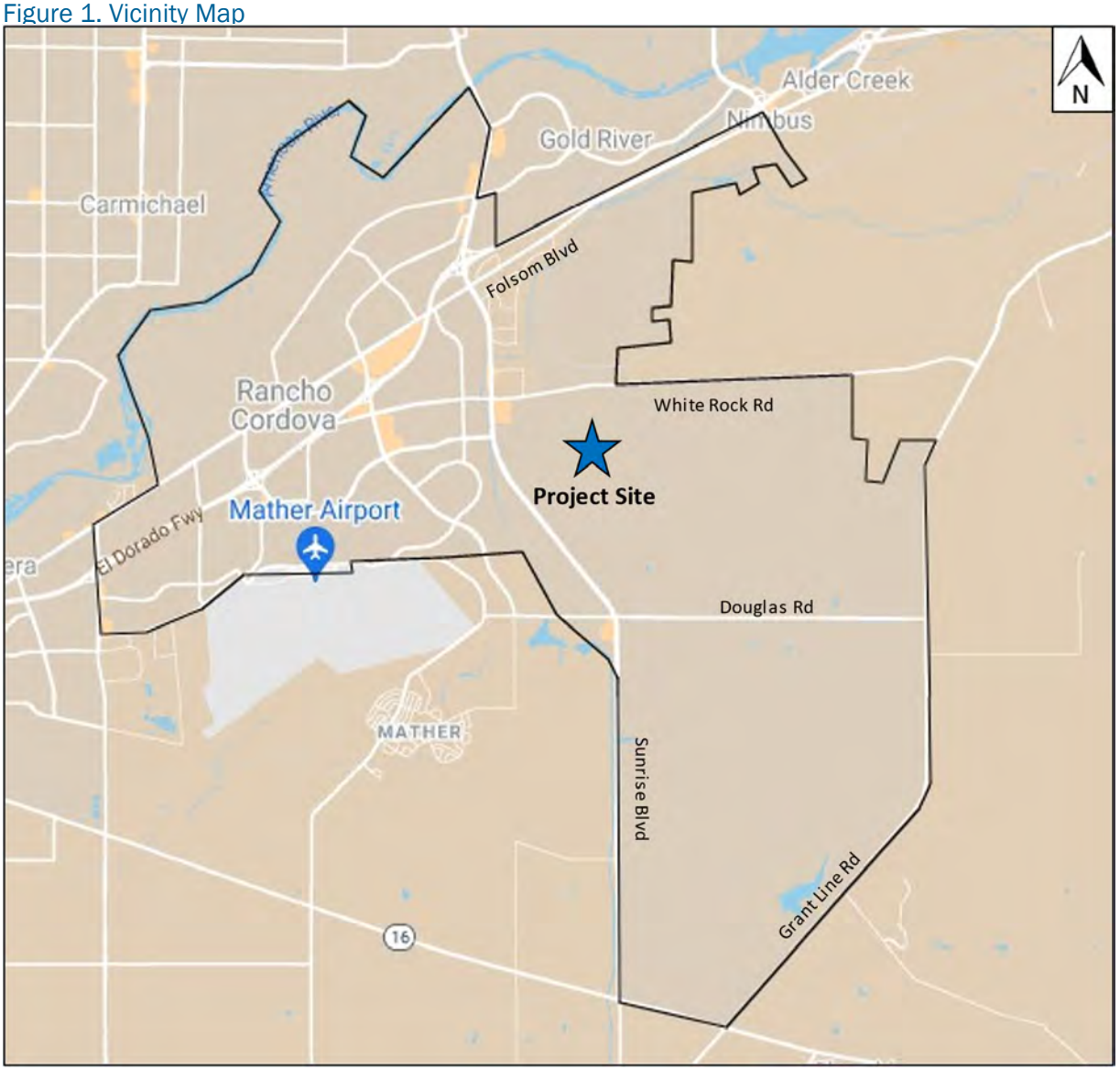
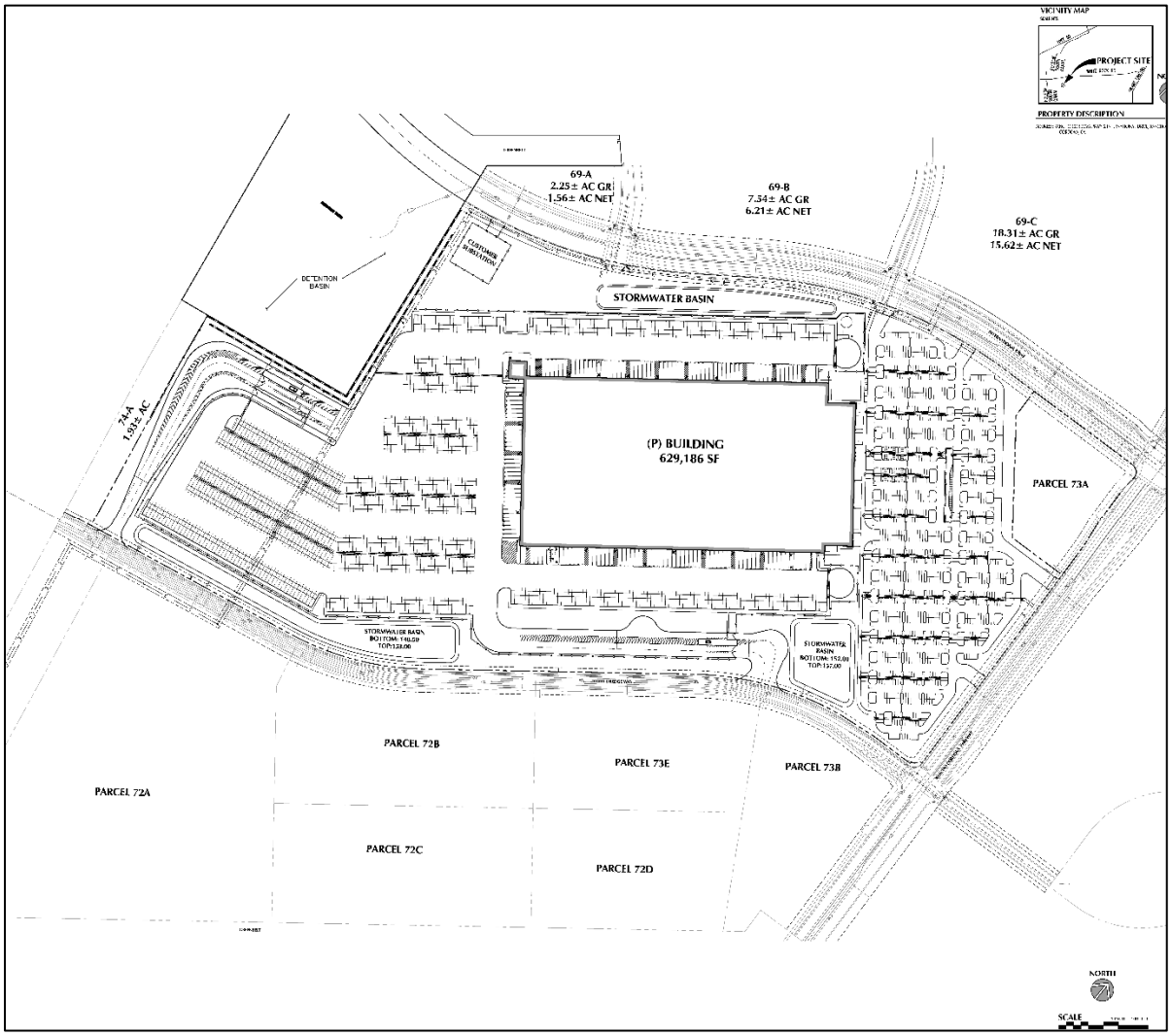


Figure 2. Site Plan



A.3. Study Area

This LTA addresses potential operational deficiencies that could result from the addition of the project traffic to the local circulation system. The study area contains intersections that project traffic may use. Based on the discussion with City of Rancho Cordova staff, the following ten intersections and six driveways were analyzed:

1. White Rock Road / Sunrise Boulevard
2. Sunrise Boulevard / International Drive
3. Sunrise Boulevard / Fitzgerald Road
4. Sunrise Boulevard / Mechanical Drive
5. White Rock Road / Gold Valley Drive
6. White Rock Road / Fitzgerald Road
7. Gold Dredge Way / Fitzgerald Road
8. Gold Dredge Way / Luyung Drive

9. White Rock Road / Rancho Cordova Parkway
10. International Drive / Rancho Cordova Parkway
11. Rancho Cordova Parkway / Gold Dredge Way

D1 - D6. Site Driveways

The project study area is illustrated in Figure 3.

Figure 3. Project Study Area



B. Analysis Approach and Methodology

This section summarizes the analysis approach and methodology used to evaluate the study intersections associated with the proposed project. The analysis is consistent with the County of Sacramento's Transportation Analysis Guidelines (2020).

B.1. Analysis Scenarios

The LTA includes level of service analysis for the No-Build (2023), Build (2023), and Build+ (2023) scenarios. Levels of service (LOS) were determined at the study area intersections for the AM and PM peak hours. The analysis in each of the scenarios for the study was performed using the traffic analysis software Synchro® 11. Average vehicular delays (in seconds) are calculated and reported as Levels of Service (LOS) as defined by the Highway Capacity Manual (HCM) 6th edition with the exception of Driveway 6 for which only the 2000 edition provided results.

B.2. Methodology

The City of Rancho Cordova has established an acceptable LOS standard of D or better for intersection operations. The purpose of an LTA is to provide analysis of traffic congestion and support the policies outlined in the General Plan Circulation Element that require land development and transportation projects to evaluate and identify any resulting operational deficiencies on local and regional roadways.

B.3. Project Analysis Requirements

The proposed receiving center will occupy an 82-acre vacant parcel that is part of Phase 5 of the Rio Del Oro Specific Plan. The project is consistent with the land use designation in the adopted Rio Del Oro Specific Plan for Industrial Park land use. The project will construct a warehouse consisting of approximately 629,186 square feet. The targeted build-out date for the new facility is early 2023.

Prior to July 1, 2020, the California Environmental Quality Act (CEQA) required development projects to analyze transportation related environmental impacts using level of service (LOS). The Rio Del Oro Specific Plan FEIR/FEIS was completed in June 2010. Transportation related environmental impacts included in the FEIR/FEIS were analyzed using LOS. Senate Bill 743 (SB 743) went into effect on July 1, 2020. SB 743 requires jurisdictions to shift from analyzing transportation related environmental impacts using LOS to using VMT. In coordination with City staff, it was determined CEQA requirements were satisfied as part of the previous FEIR/FEIS and a VMT analysis was not required.

To satisfy local reporting requirements this LTA was prepared following the City of Rancho Cordova Transportation Impact Guidelines (2020) and in coordination with the City. Based on the guidelines, the project is required to analyze intersections within the project's vicinity. The project is anticipated to generate 3,532 trips and is required to produce an LTA report.

B.4. Rio del Oro Specific Plan

The Rio del Oro Specific Plan provides for the development of approximately 3,827.9 acres of vacant land through a series of ten phases. The Rio del Oro Specific Plan includes a comprehensive infrastructure system with coordinated phasing and construction of facilities. The project is located in the area designated as Phase 5 and includes industrial park, business park, local town center (retail/commercial) and community park land uses east of the existing Rancho Cordova Industrial area and south of the Phase 1, north of Phase 2 and west of Phase C/E.

The following infrastructure facilities were identified in the Specific Plan to serve Phase 5:

- International Drive will be constructed from the west boundary of Phase 5 to the east boundary of Phase 5 as a two-lane major arterial. The City of Rancho Cordova will be responsible for right-of-way acquisition and construction of International Drive from Sunrise Boulevard east to Phase 5.
- A traffic signal will be constructed at the International Drive/Rancho Cordova Parkway intersection. Additional lanes will be added as required with future phases or as part of a City CIP project until the ultimate six lane arterial is constructed.
- Collector A and Gold Dredge Way (in place of Collector C) will be constructed as Phase 5 develops.

Based on conversations with City Staff and the master developer, some of the improvements identified in the Specific Plan may not be implemented at the time the receiving center is operational. The following roadways are expected to be accessible by 2023 when the project is operational:

- Rancho Cordova Parkway from White Rock Road to Gold Dredge Way (originally Collector C) as a four-lane divided roadway, though it may be striped with only one through lane on approaches to any all-way stop controlled intersections.
- International Drive along the project's northern border from the westernmost driveway to Collector A (but not connected to any other streets west of the Rio Del Oro boundary), as a two-lane divided route.
- Gold Dredge Way extended east to Rancho Cordova Parkway, as a three-lane roadway to accommodate left-turns into any future side streets and driveways.

C. Existing Conditions

C.1. Existing Traffic Volumes

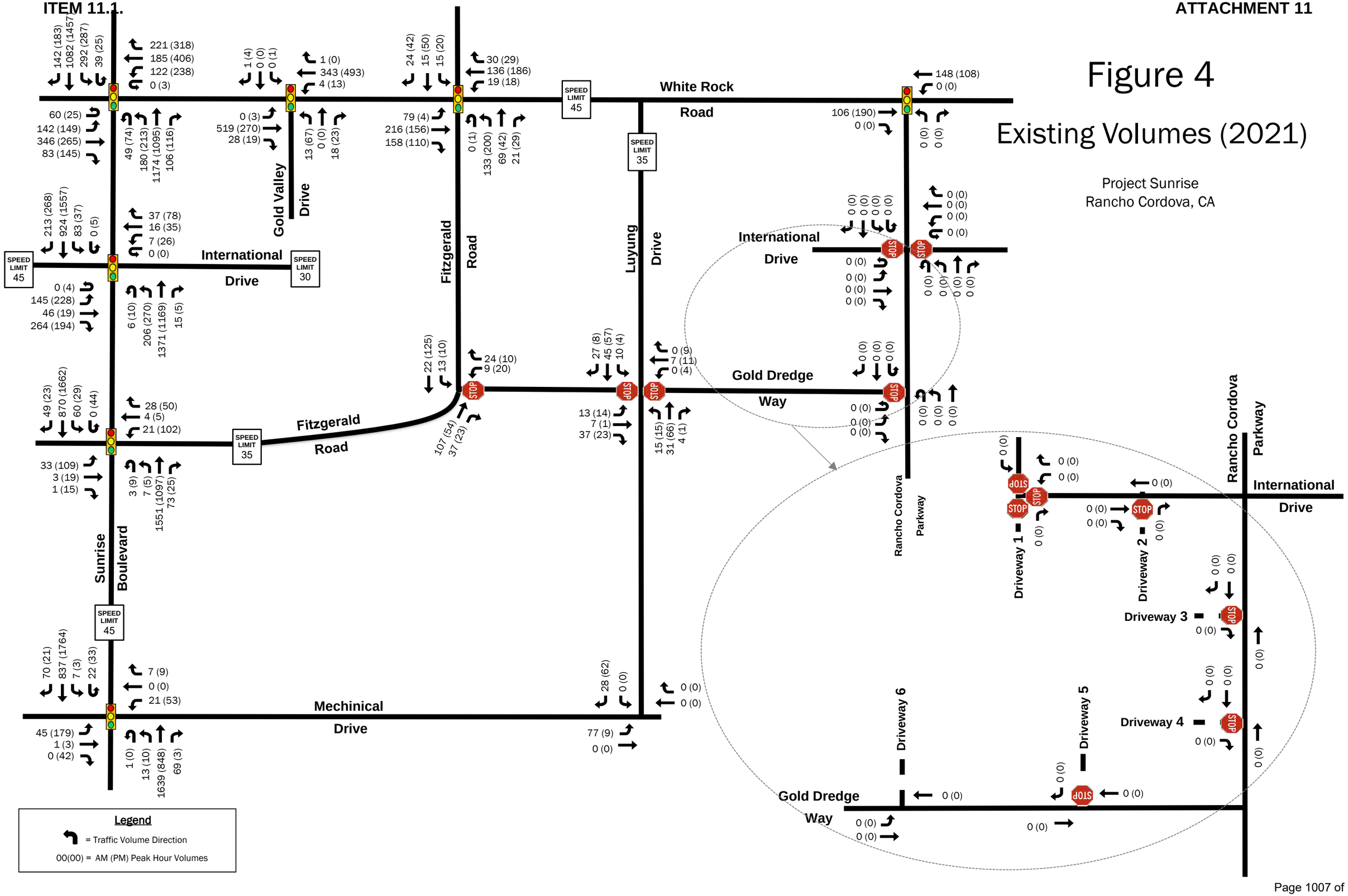
To accurately account for typical traffic conditions, turning movement counts (TMCs) were collected on Thursday, July 22, 2021, by National Data & Surveying Services (NDS). TMCs were collected during the windows of 7-9AM and 4-6PM to establish the existing peak hour volumes. TMCs were collected at the intersection of Sunrise Boulevard and Mechanical Drive on January 4, 2022, from 6-8:30AM and 4:30-7:30PM. Traffic counts for this intersection were treated as though they were collected in 2021. Due to the COVID-19 pandemic traffic volumes, City staff provided historical traffic data from March 15, 2016, for pre-pandemic comparison. The existing (2021) traffic volumes were adjusted based on the historical traffic volumes. More specifically, the AM peak hour counts were increased by 49% and the PM peak hour counts were increased by 26% to account for COVID's influence on peak hour traffic volumes. Existing traffic volumes are illustrated on Figure 4. Turning movement counts and adjustments are provided in Appendix B.

As part of traffic count collection, vehicle classification data was collected for White Rock Road and Sunrise Boulevard to determine the heavy vehicle percentage by scenario. In each analysis scenario, the percent of heavy vehicles have been adjusted as necessary. Detailed information regarding heavy vehicle data is provided in Appendix C.

Figure 4

Existing Volumes (2021)

Project Sunrise
Rancho Cordova, CA



C.2. Bicycle and Pedestrian Facilities

Existing bicycle and pedestrian facilities were documented. Bicycle facilities can be classified into one of the following four categories:

- Class I Bike Path: Off-street bike paths within exclusive right-of-way.
- Class II Bike Lane: Striped on-road bike lanes adjacent to the outside travel lane on preferred corridors for biking.
- Class III Bike Route: Shared on-road facility, usually delineated by signage. Bikeway facilities are limited near the project site.
- Class IV Protected Bike Lane / Cycle Track: Separated bike facility that includes a physical barrier separating the bike lane from the travel lanes.

According to the City of Rancho Cordova Bikeway Master Plan (March 2011) and field observations, the closest bike facility is located outside of the project study area along Folsom South Canal. As part of the Rio del Oro development, a series of Class I and Class II bike lanes are proposed. Figure 5 illustrates the existing and proposed bike facilities within the study area. Figure 6 illustrates the existing and planned classification of the bike facilities within the study area.

Existing sidewalk is present outside of the Rio del Oro development area. Gaps in sidewalk exist predominantly along White Rock Road and areas along Fitzgerald Road. As Rio del Oro develops, projects are anticipated to follow the Rio del Oro Design Guidelines which indicate sidewalk design criteria. Multimodal opportunities will increase as the development continues as part of the Rio del Oro Specific Plan. Figure 7 illustrates the existing sidewalk and sidewalk gaps within the study area.

Figure 5: Existing and Proposed Bike Facilities



Figure 6: Bike Facility Classification

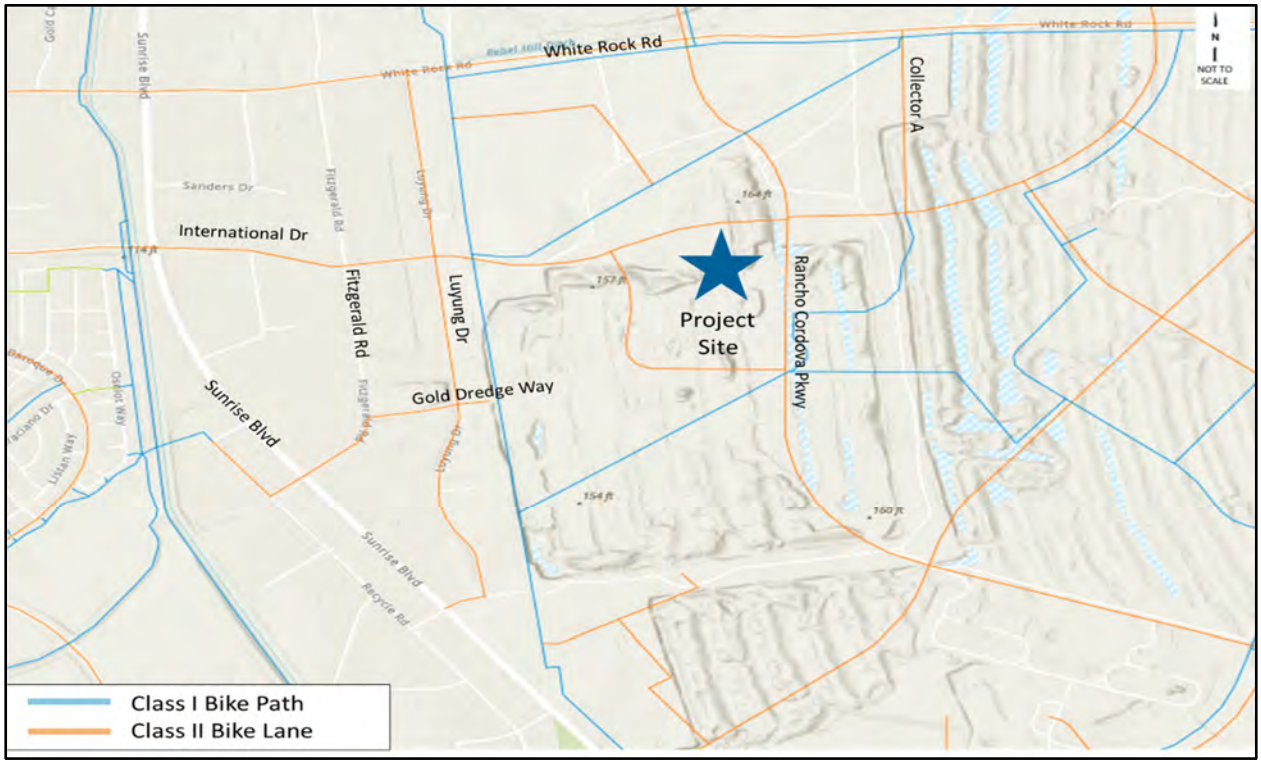


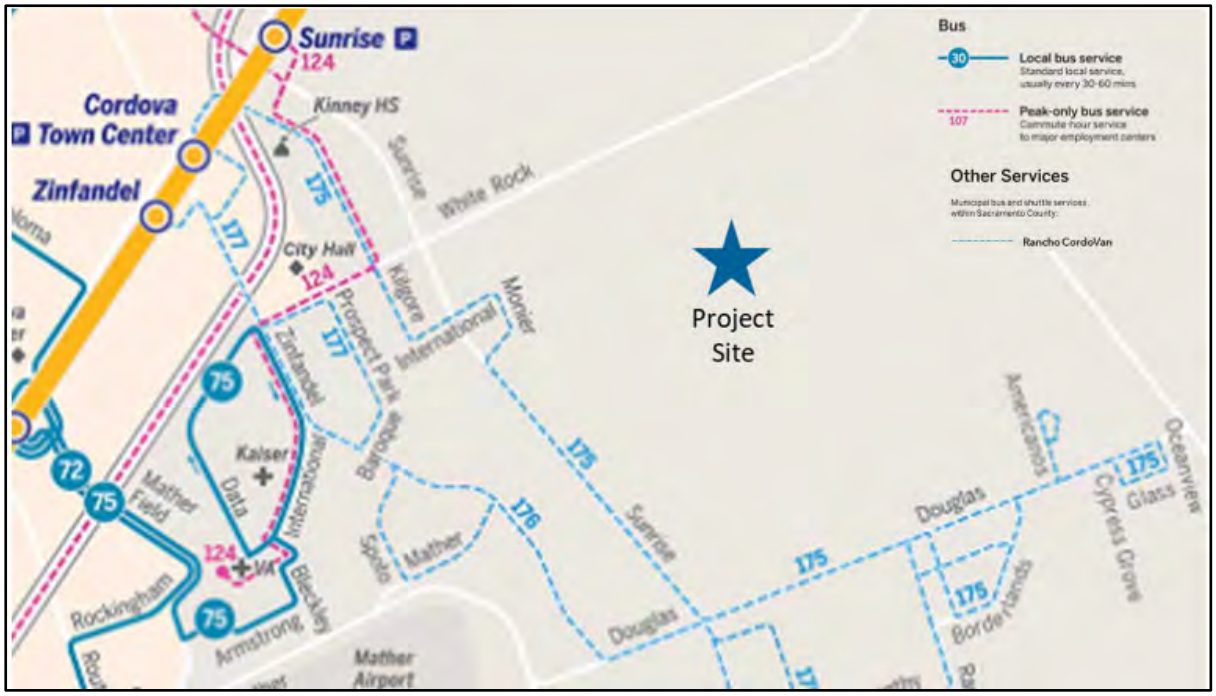
Figure 7: Existing Sidewalk and Sidewalk Gaps



C.3. Transit Service

The City of Rancho Cordova is served by four Sacramento Regional Transit District (SacRT) light rail stations. Additional transportation options consist of SacRT's SmaRT Ride and Rancho CordoVan Shuttle Service. No bus or transit facilities exist within a half mile of the project site. The nearest bus stop is over two miles from the project site located on Monier Circle and Sunrise Boulevard. The stop is serviced by CardoVan Shuttle Route 175. Existing transit near the study area is illustrated in Figure 8.

Figure 8: Existing Transit



D. No-Build (2023) Traffic Analysis

D.1. Background Growth

The project's opening year is 2023 and was determined to represent the No-Build analysis scenario. A compound annual growth rate of one percent was applied to the adjusted existing (2021) traffic volumes to account for the project's opening year (2023). (See Appendix B for ambient growth results.)

The No-Build scenario includes two projects within the immediate project vicinity that have been approved and are anticipated to be developed prior to site occupancy. The approved projects consist of 444 single family homes opposite of International Drive and an e-commerce delivery station consisting of approximately 181,600 square feet proposed at 11427 White Rock Road. Appendix D provides the trip generation tables, distribution, and volume figures for the approved developments considered as existing in 2023.

The results of the 2023 No-Build intersection capacity analyses are demonstrated in Table 1 and include the volumes illustrated in Figure 9. Synchro analysis worksheets are providing in Appendix E.

Table 1: No-Build[1] (2023) Intersection Capacity Summary

ID	Intersection	Control Movement	AM		PM	
			LOS	Delay	LOS	Delay
1	White Rock Road / Sunrise Boulevard[2]	Signal	C	33.0	D	40.6
2	Sunrise Boulevard / International Drive[2]	Signal	B	18.4	C	24.2
3	Sunrise Boulevard / Fitzgerald Road[2]	Signal	B	10.2	B	13.0
4	Sunrise Boulevard / Mechanical Drive[2]	Signal	B	9.6	B	14.8
5	White Rock Road / Gold Valley Drive[3]	Signal	A	4.7	A	7.6
6	White Rock Road / Fitzgerald Road[3]	Signal	B	16.5	B	17.6
7	Gold Dredge Way / Fitzgerald Road[4]	Stop Control	A	9.6	A	9.9
8	Gold Dredge Way / Luyung Drive[4]	Stop Control	B	10.3	B	10.1
9	White Rock Road / Rancho Cordova Parkway[3]	Signal	A	1.9	A	6.2
10	International Drive / Rancho Cordova Parkway	Two Way Stop[4]	A	8.4	B	10.1
		All Way Stop[5]	A	7.8	A	8.3
11	Rancho Cordova Parkway / Gold Dredge Way	Two Way Stop[4]	A	8.6	A	8.7
		All Way Stop[5]	A	7.8	A	8.0
12	International Drive @ Site Driveway 1[5]	Stop Control	A	7.3	A	7.3
13	International Drive @ Site Driveway 2[4]	Stop Control	-	-	-	-
15	Rancho Cordova Parkway @ Site Driveway 3[4]	Stop Control	-	-	-	-
15	Rancho Cordova Parkway @ Site Driveway 4[4]	Stop Control	-	-	-	-
16	Gold Dredge Way @ Site Driveway 5[4]	Stop Control	-	-	-	-
17	Gold Dredge Way @ Site Driveway 6[4]	Stop Control	-	-	-	-

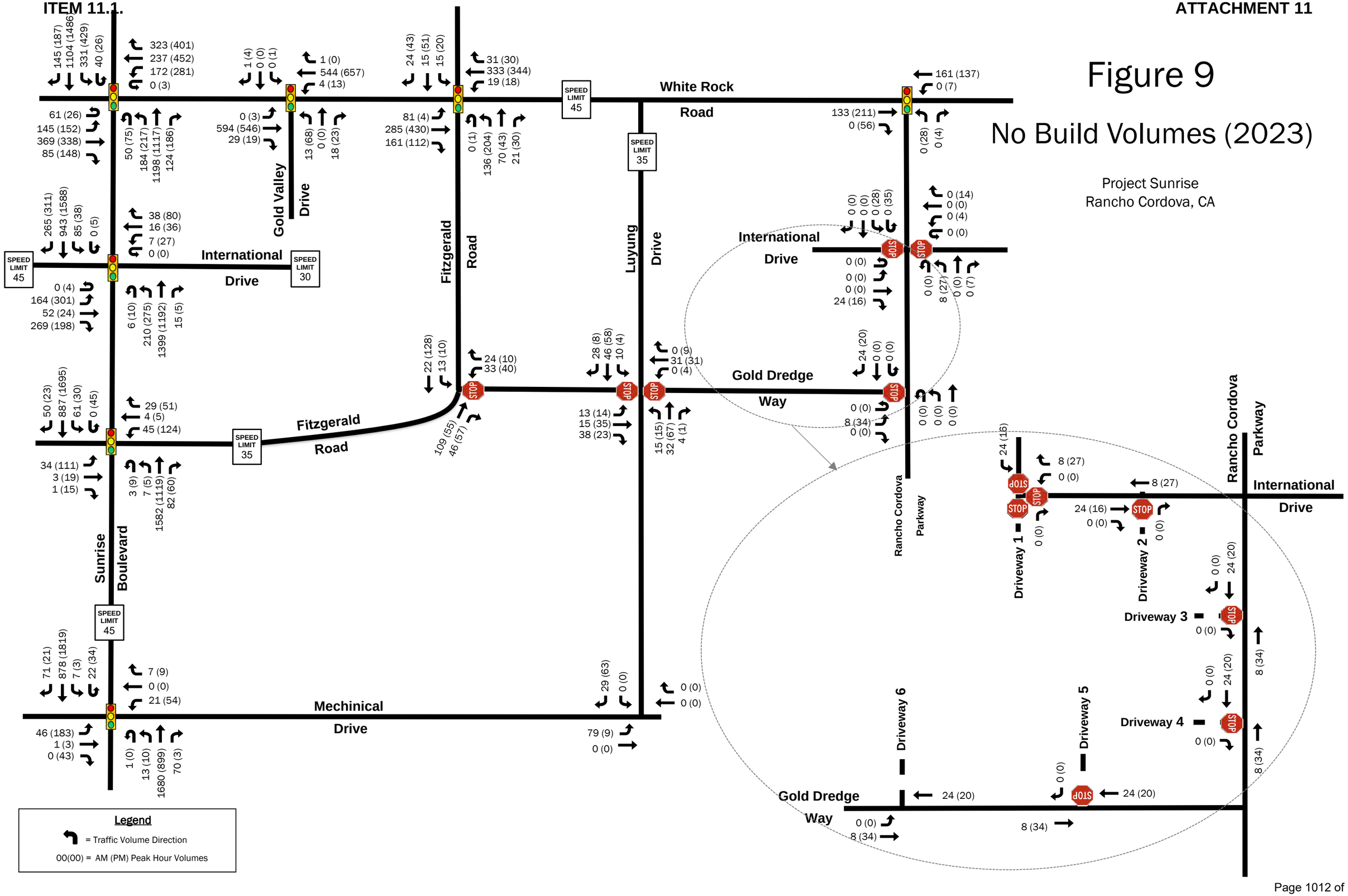
[1]2023 Traffic Plus Adjacent Approved Development.
[2]Existing Traffic Signal, LOS Based on Average Intersection, Delay in Seconds/Vehicle
[3]Signal to be installed by Others, LOS Based on Average Intersection, Delay in Seconds/Vehicle
[4]Two Way Stop Control, LOS Reported for Worst Approach, Delay in Seconds/Vehicle
[5]All Way Stop Controlled, LOS Reported for Worst Approach for Comparison Purposes, Delay in Seconds/Vehicle

As shown in Table 1, the study intersections operate at a satisfactory LOS D or better during both the AM and PM peak hours. Nevertheless, westbound right turns from White Rock Road to Sunrise Boulevard are at capacity and LOS F during the PM peak hour.

Figure 9

No Build Volumes (2023)

Project Sunrise
Rancho Cordova, CA



E. Project Traffic

This section describes the proposed project, forecast trip generation, trip distribution, and trip assignments on the adjacent roadway network.

E.1. Project Description

The proposed receiving center will occupy an 82-acre vacant parcel that is part of Phase 5 of the Rio Del Oro Specific Plan EIR. The project is consistent with the land use designation in the adopted Rio Del Oro Specific Plan EIR for Business Park / Industrial Park land use. The project will construct a warehouse consisting of approximately 629,186 square feet. The warehouse will be used as an inventory receiving and storage center.

E.2. Trip Generation

The Rio Del Oro Specific Plan EIR does not identify trip generation rates for each land use and/or parcel for each phase of the development. To determine project consistency, a trip generation comparison was made based on the year of the study (2006) for the subject parcel and the trip generation characteristics of the proposed receiving center. The comparison is summarized in Table 2. Trip estimates for the subject parcel as an industrial park are based on the then-current edition of the Institute of Engineers' Trip Generation, (7th Edition, 2003). The approved trip generation memorandum is provided in Appendix A.

Table 2: Trip Generation Comparison

Land Use	Trip Source	Daily Trips	AM Peak Hour	PM Peak Hour
Industrial Park	ITE 2003	5,175	701	725
Receiving Center (Proposed)[1]	Tenant	3,532	133	510

[1]One hour between 7:00 – 9:00 AM & one hour between 4:00 – 6:00 PM

Table 2 indicates the use of the subject parcel as a receiving center is consistent with the Rio del Oro Specific Plan, in terms of traffic and transportation. As shown in Table 3, the project is anticipated to generate a total of 3,532 daily trips, which includes 132 (86 entering, 46 exiting) during the AM peak hour of the adjacent street and 510 (99 entering, 411 exiting) during the PM peak hour of the adjacent street, as provided in Table 3. The project truck trips have been converted to passenger car equivalent trips using a rate of 3.0 for the capacity analyses.

Table 3: Receiving Center Trip Generation[1] – Peak Hour of the Adjacent Street[2]

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	Inbound	Outbound	Total	Inbound	Outbound
Receiving Center (Proposed)	629,186 SF	3,532	132	86	46	510	99	411

[1]Based on Site Specific Schedule provided by the proposed tenant
[2]One hour between 7:00 – 9:00 AM & one hour between 4:00 – 6:00 PM

The site's peak hours differ from the standard commuting peak hours. Table 4 summarizes traffic for the proposed receiving center by standard and site-specific peak hour periods, direction, and vehicle type.

Table 4: Receiving Center Trip Generation[1] – by Vehicle Type

Vehicle Type	Peak Hours of the Adjacent Street[2]				Peak Hours of the Project Site			
	AM		PM		6:00 – 7:00 AM		5:30 – 6:30 PM	
	In	Out	In	Out	In	Out	In	Out
Passenger Vehicles	74	34	90	404	503	126	197	388
Line-Haul Trucks	12	12	9	7	17	16	6	6

[1]Based on Site Specific Schedule provided by the proposed tenant
[2]One hour between 7:00 – 9:00 AM & one hour between 4:00 – 6:00 PM

E.3. Adjustments to Trip Generation Rates

Due to the nature of the development, no adjustments for pass-by or internal capture were considered for trips generated by the site.

E.4. Trip Distribution and Assignment

Project traffic distribution varies depending on the type of vehicle and roadway access. Line haul trucks entering the site are expected to come from many different origins, but those exiting the site are bound for larger warehouses and sort centers. Employees entering and exiting the site are considered typical commuter home-to-work and work-to-home trips. Based on the trip distribution, the project trips were assigned to the study area roadway network.

Ninety percent of the trucks are expected to use US 50 as the main travel route. The remaining 10% are expected to use other routes south of the site. All trucks would use Sunrise Boulevard.

Due to the limited roadway infrastructure expected to be in place by 2023, and to some extent the preferred layout of the site's operations, line haul trucks will use Gold Dredge Way to enter and exit the site. Trucks will enter the site from the west and turn left into Driveway 6 and will exit by turning right out of Driveway 5.

Employees are expected to primarily live north (40%) and west (40%) of the site. The remaining 20% are expected to live south (10%) and east (10%) of the site. Driveways accessing the passenger vehicle parking lot on the east side of the proposed building will accommodate employees. These driveways are expected to be located on International Drive and Rancho Cordova Parkway. Ultimately most of these driveways will likely be limited to right-turns due to medians proposed for the ultimate cross-sections for these roadways. Therefore, except for the westernmost driveway on International Drive (D1), passenger vehicles have been assigned as right-turns both entering and exiting the site. Figures 10 through 13 illustrate the anticipated trip distribution and assignments for passenger vehicles and trucks.

Figure 10
Trip Distribution - Passenger Vehicles

Project Sunrise
Rancho Cordova, CA

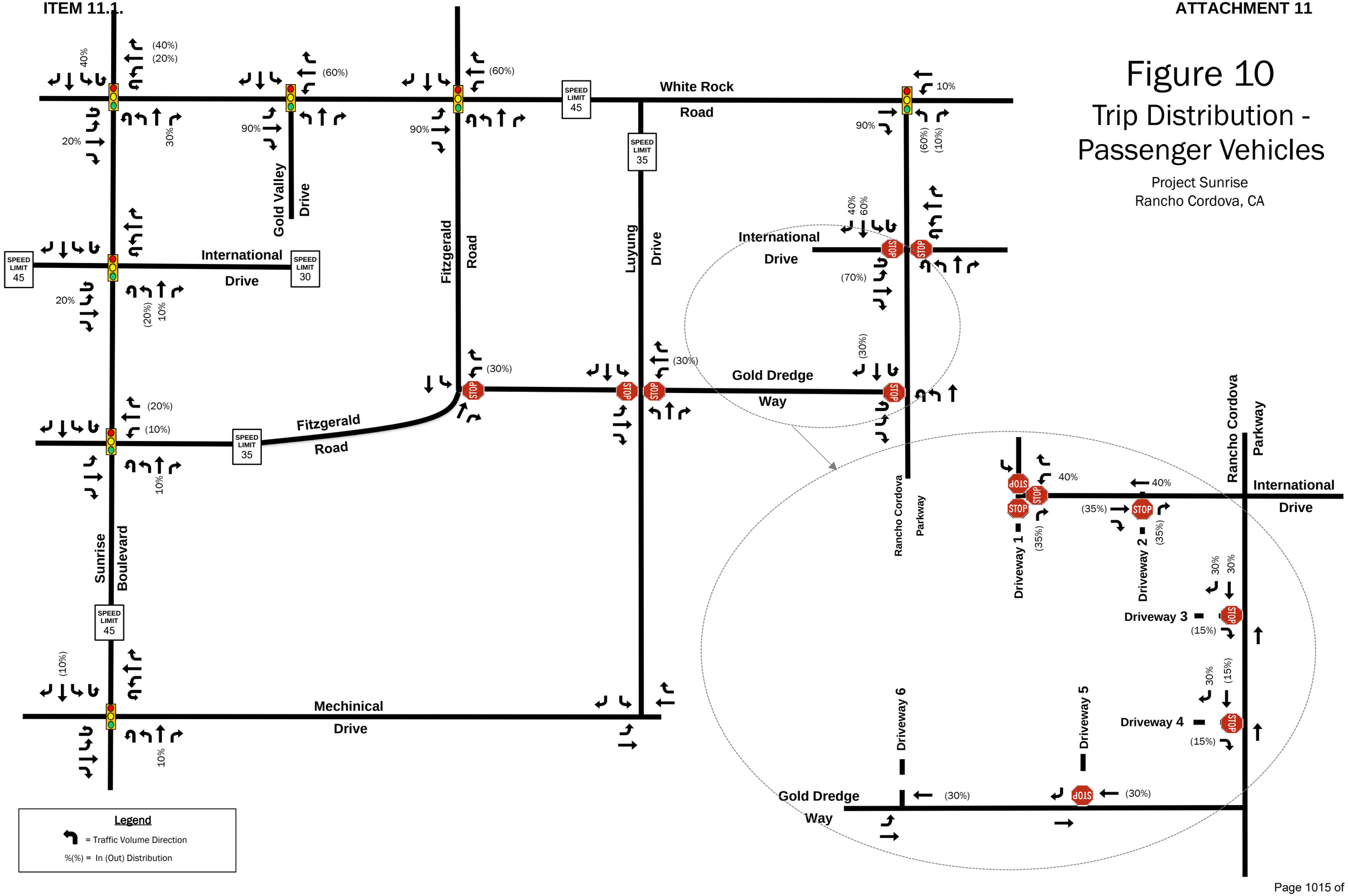


Figure 11
Passenger Vehicle Trips

Project Sunrise
Rancho Cordova, CA

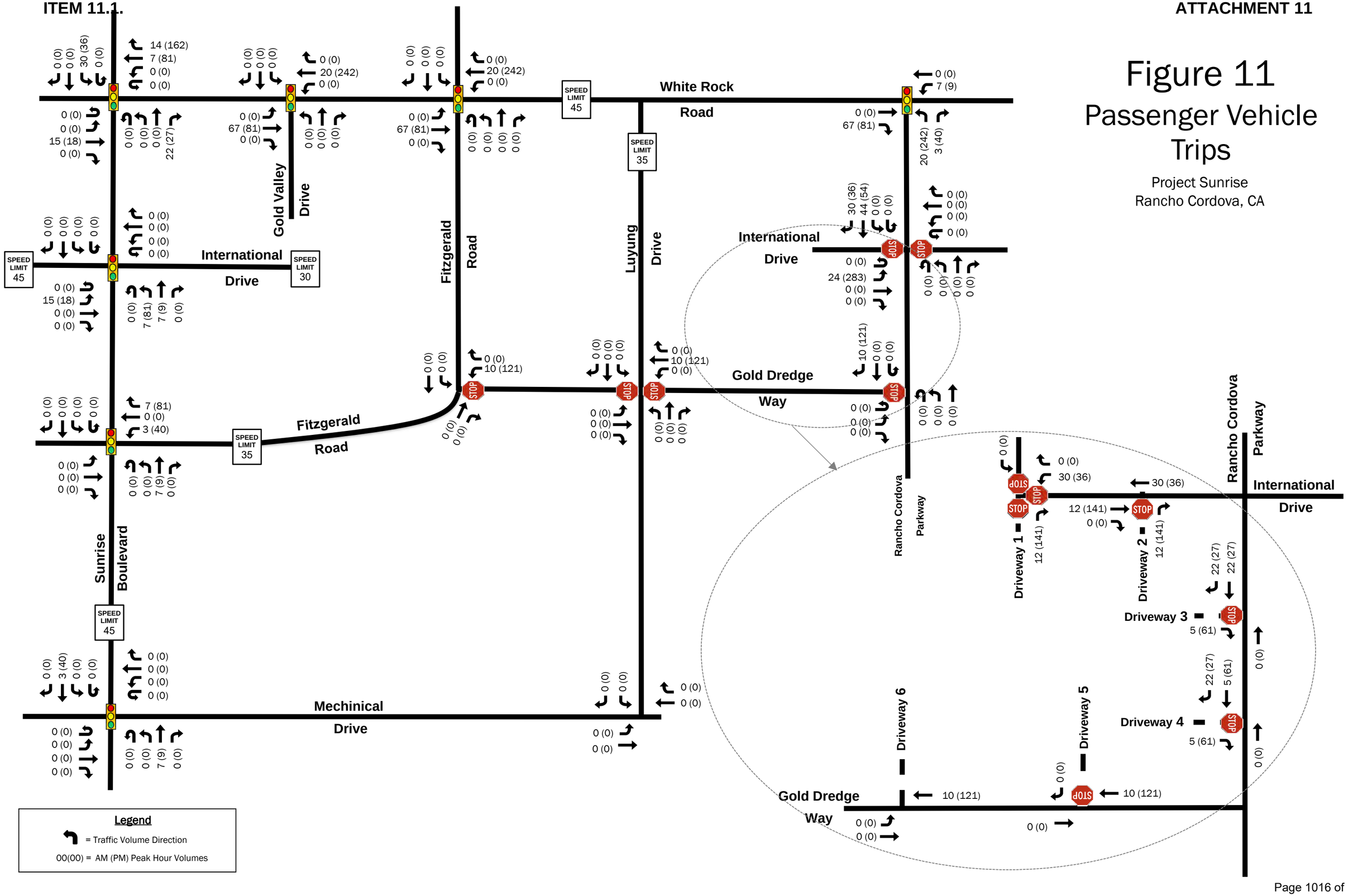


Figure 12
Trip Distribution - Trucks

Project Sunrise
Rancho Cordova, CA

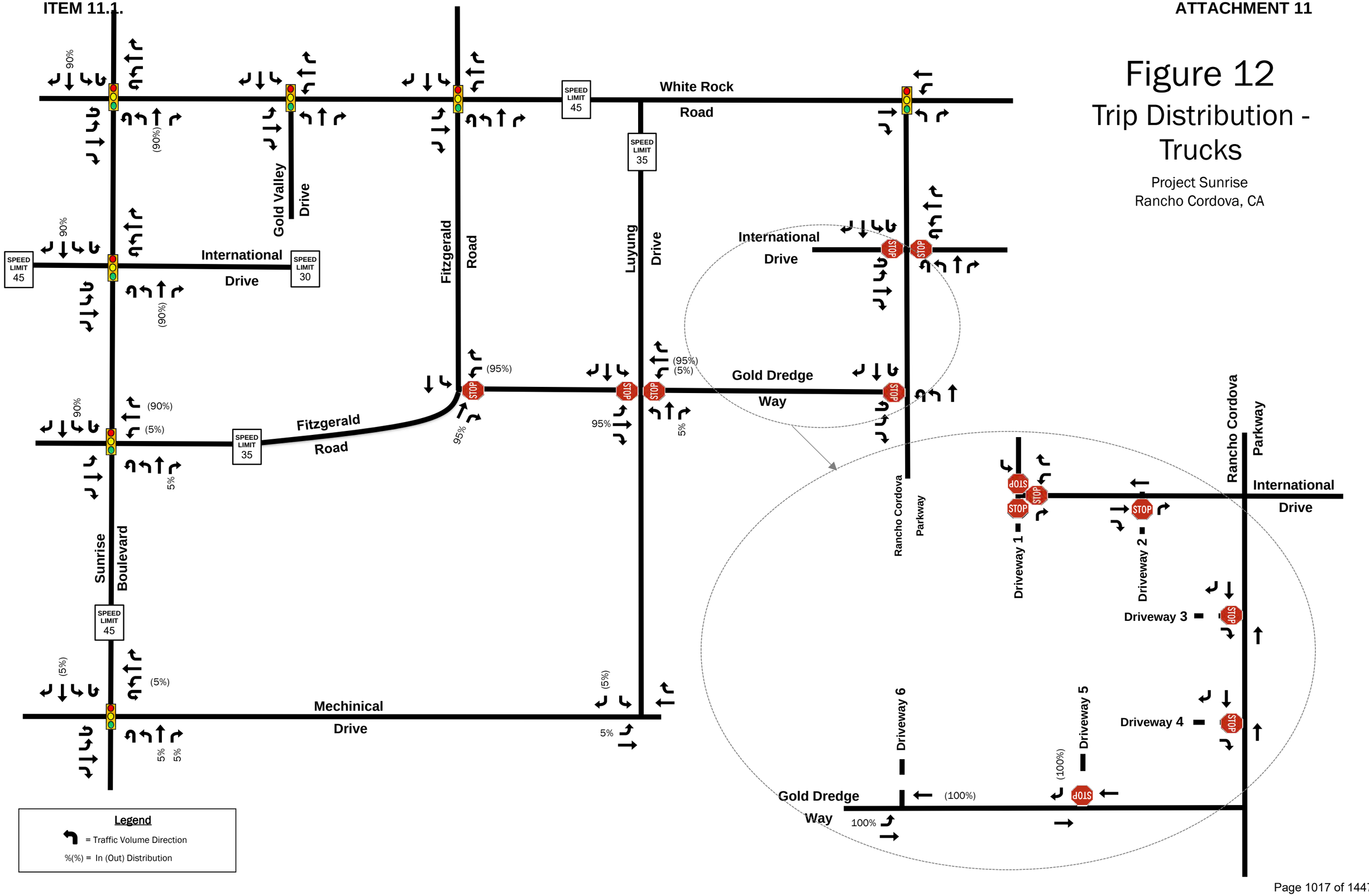
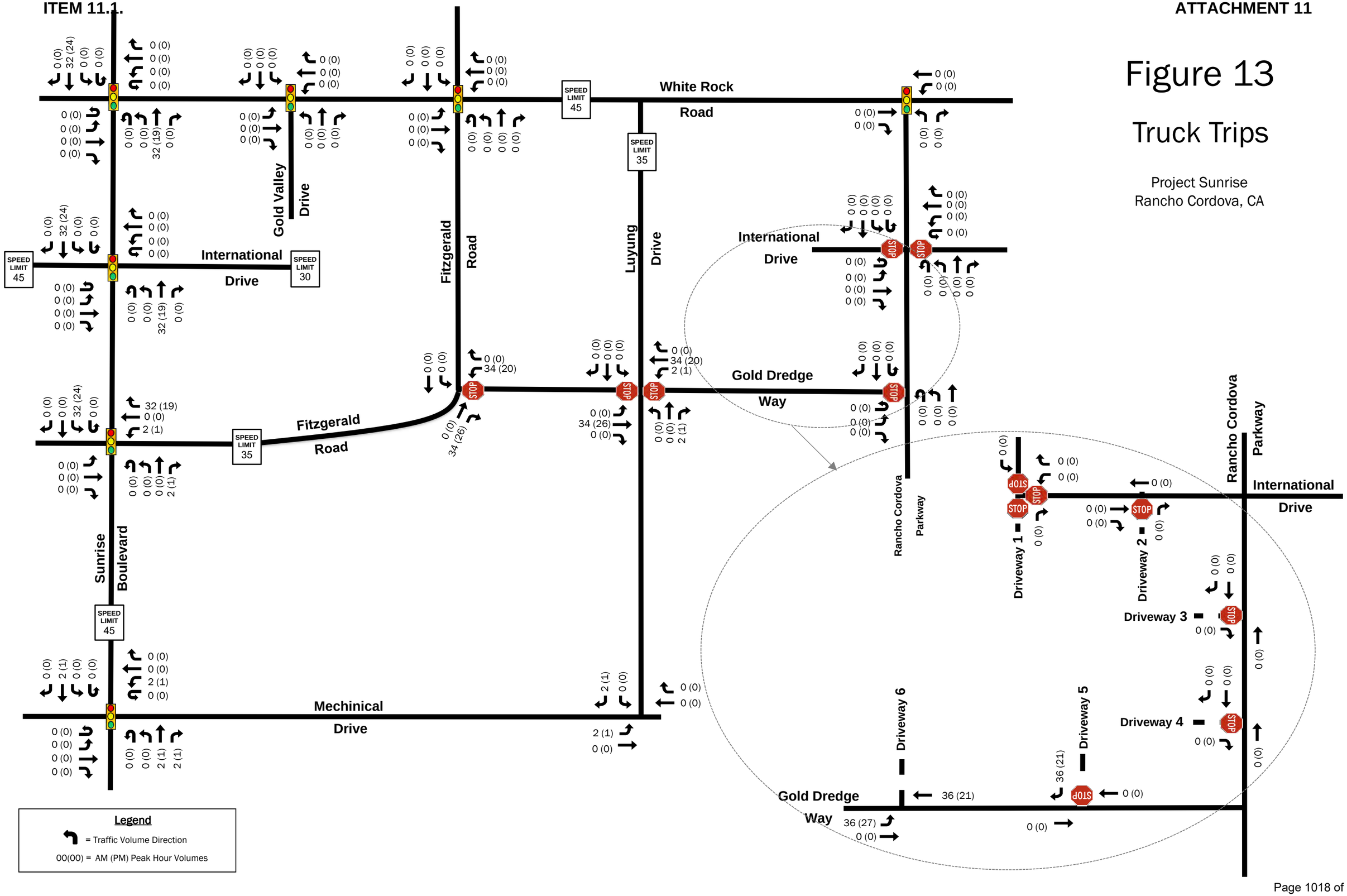


Figure 13

Truck Trips

Project Sunrise
Rancho Cordova, CA



F. Build (2023)

This section provides a summary of operations at the study area intersections with the addition of 2023 traffic and project traffic volumes. The results of the Build (2023) intersection capacity analyses are demonstrated in Table 5. Figure 14 illustrates the Build (2023) traffic volumes. Synchro analysis worksheets are providing in Appendix E.

Table 5: Build (2023) Intersection Capacity Summary

Intersection	Scenario							
	No Build (2023)[1]				Build (2023)[2]			
	AM		PM		AM		PM	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Sunrise Boulevard @ White Rock Road[3]	C	33.0	D	40.6	C	34.6	D	52.2
Sunrise Boulevard @ International Drive[3]	B	18.4	C	24.2	B	18.8	C	26.7
Sunrise Boulevard @ Fitzgerald Road[3]	B	10.2	B	13.0	B	12.6	B	17.2
Sunrise Boulevard @ Mechanical Drive[3]	B	9.6	B	14.8	B	9.5	B	15.7
White Rock Road @ Gold Valley Drive[4]	A	4.7	A	7.6	A	4.6	A	7.2
White Rock Road @ Fitzgerald Road[4]	B	16.5	B	17.6	B	16.4	B	17.7
Gold Dredge Way @ Fitzgerald Road[5]	A	9.6	A	9.9	B	10.1	B	11.5
Gold Dredge Way @ Luyung Drive[5]	B	10.3	B	10.1	B	10.7	B	11.8
White Rock Road @ Rancho Cordova Parkway[4]	A	1.9	A	6.2	A	6.0	A	9.5
International Drive @ Rancho Cordova Parkway[5]	A	8.4	B	10.1	A	9.1	C	15.2
International Drive @ Rancho Cordova Parkway[6]	A	7.8	A	8.3	A	8.0	B	12.5
Rancho Cordova Parkway @ Gold Dredge Way[5]	A	8.6	A	8.7	A	8.7	A	9.1
Rancho Cordova Parkway @ Gold Dredge Way[6]	A	7.8	A	8.0	A	7.9	A	8.3
International Drive @ Site Driveway 1[6]	A	7.3	A	7.3	A	7.3	A	7.5
International Drive @ Site Driveway 2[5]	-	-	-	-	A	8.5	A	9.8
Rancho Cordova Parkway @ Site Driveway 3[5]	-	-	-	-	A	8.5	A	8.7
Rancho Cordova Parkway @ Site Driveway 4[5]	-	-	-	-	A	8.5	A	8.8
Gold Dredge Way @ Site Driveway 5[5]	-	-	-	-	A	8.6	A	9.1
Gold Dredge Way @ Site Driveway 6[5]	-	-	-	-	A	6.1	A	3.4

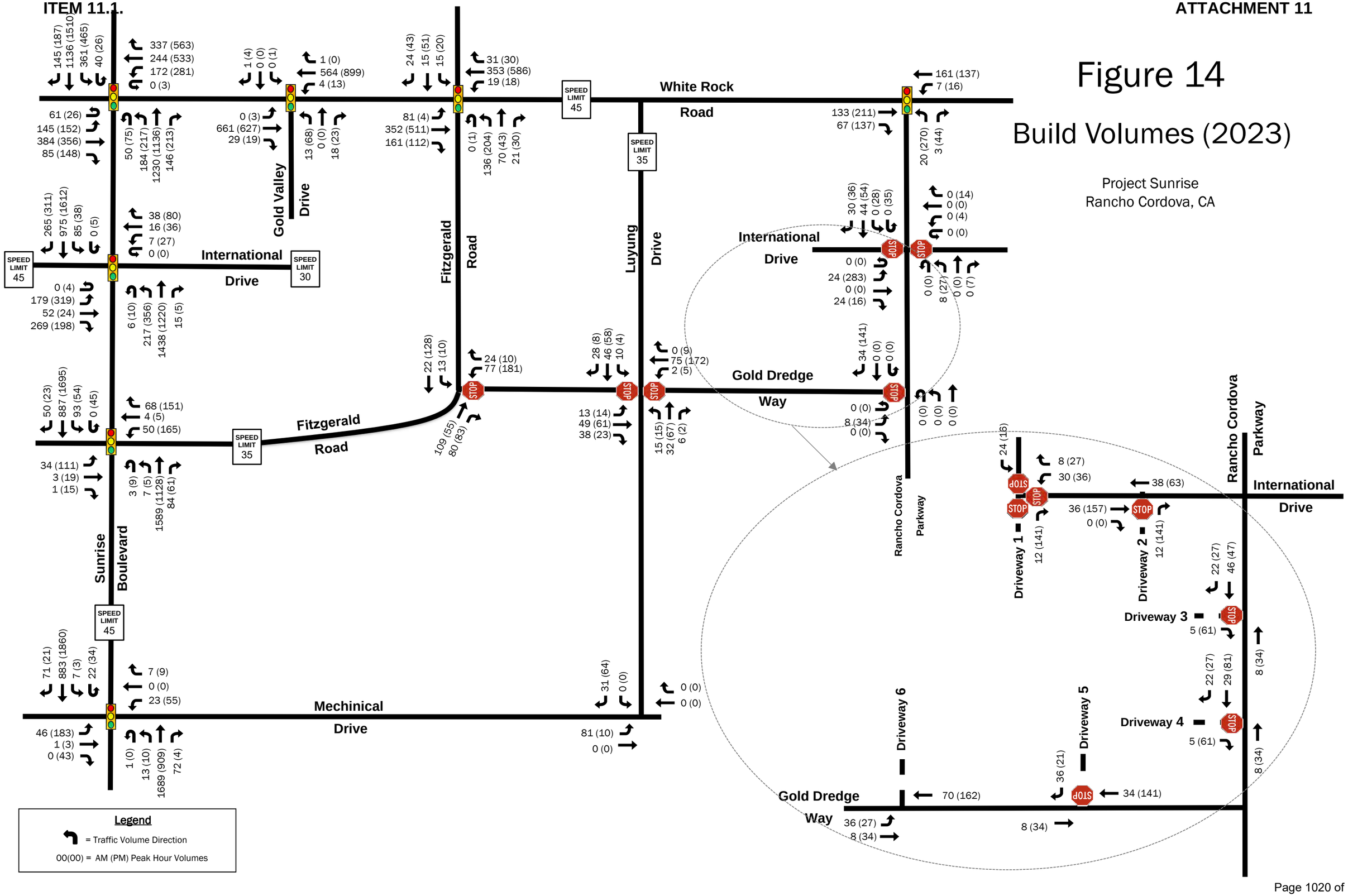
[1]2023 Traffic Plus Adjacent Approved Development.
[2]2023 Traffic Plus Adjacent Approved Development and Project Traffic.
[3]Existing Traffic Signal, LOS Based on Average Intersection, Delay in Seconds/Vehicle
[4]Signal to be installed by Others, LOS Based on Average Intersection, Delay in Seconds/Vehicle
[5]Stop Controlled, LOS Reported for Worst Approach, Delay in Seconds/Vehicle
[6]All Way Stop Controlled, LOS Reported for Worst Approach for Comparison Purposes, Delay in Seconds/Vehicle

As shown in Table 5, the study intersections operate at LOS D or better during both the AM and PM peak hours. The overall operations at the study intersections are satisfactory in the Build (2023) condition. Westbound right turns from White Rock Road to Sunrise Boulevard are over capacity and operate at LOS F during the PM peak hour.

Figure 14

Build Volumes (2023)

Project Sunrise
Rancho Cordova, CA



G. Build+ (2023)

The Build+ (2023) scenario considers the addition of a potential industrial park to the south of Gold Dredge Way. Build+ volumes include 2023 traffic volumes plus the project volumes, plus an 819,000 SF industrial park. Anticipated trip generation, distribution, and trip assignments for the potential industrial park are provided in Appendix F. The Build+ (2023) traffic volumes are illustrated in Figure 15. Synchro analysis worksheets are providing in Appendix E.

Heavy vehicle percentages were adjusted for the additional volumes as documentation in Appendix C. Table 6 provides a comparison of the No Build (2023), Build (2023), and Build+ (2023) scenarios.

Table 6: Build+ (2023) Intersection Capacity Summary

Intersection	Scenario											
	No Build (2023)[1]				Build (2023)[2]				Build + (2023)[3]			
	AM		PM		AM		PM		AM		PM	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Sunrise Boulevard @ White Rock Road[4]	C	33.0	D	40.6	C	34.6	D	52.2	D	39.3	E	67.1
Sunrise Boulevard @ International Drive[4]	B	18.4	C	24.2	B	18.8	C	26.7	C	20.7	C	30.1
Sunrise Boulevard @ Fitzgerald Road[4]	B	10.2	B	13.0	B	12.6	B	17.2	C	18.1	C	23.8
Sunrise Boulevard @ Mechanical Drive[4]	B	9.6	B	14.8	B	9.5	B	15.7	A	8.0	B	15.1
White Rock Road @ Gold Valley Drive[5]	A	4.7	A	7.6	A	4.6	A	7.2	A	4.5	A	7.2
White Rock Road @ Fitzgerald Road[5]	B	16.5	B	17.6	B	16.4	B	17.7	B	16.5	B	19.3
Gold Dredge Way @ Fitzgerald Road[6]	A	9.6	A	9.9	B	10.1	B	11.5	B	12.8	C	16.0
Gold Dredge Way @ Luyung Drive[6]	B	10.3	B	10.1	B	10.7	B	11.8	B	13.1	C	16.0
White Rock Road @ Rancho Cordova Parkway[5]	A	1.9	A	6.2	A	6.0	A	9.5	A	6.7	A	9.9
International Drive @ Rancho Cordova Parkway[6]	A	8.4	B	10.1	A	9.1	C	15.2	A	9.6	C	16.6
International Drive @ Rancho Cordova Parkway[7]	A	7.8	A	8.3	A	8.0	B	12.5	A	8.3	B	13.2
Rancho Cordova Parkway @ Gold Dredge Way[6]	A	8.6	A	8.7	A	8.7	A	9.1	A	8.9	A	9.4
Rancho Cordova Parkway @ Gold Dredge Way[7]	A	7.8	A	8.0	A	7.9	A	8.3	A	8.1	A	9.0
International Drive @ Site Driveway 1[7]	A	7.3	A	7.3	A	7.3	A	7.5	A	7.3	A	7.5
International Drive @ Site Driveway 2[6]	-	-	-	-	A	8.5	A	9.8	A	8.5	A	9.8
Rancho Cordova Parkway @ Site Driveway 3[6]	-	-	-	-	A	8.5	A	8.7	A	8.7	A	8.8
Rancho Cordova Parkway @ Site Driveway 4[6]	-	-	-	-	A	8.5	A	8.8	A	8.6	A	8.9
Gold Dredge Way @ Site Driveway 5[6]	-	-	-	-	A	8.6	A	9.1	A	8.9	A	9.1
Gold Dredge Way @ Site Driveway 6[6]	-	-	-	-	A	6.1	A	3.4	A	1.3	A	2.0

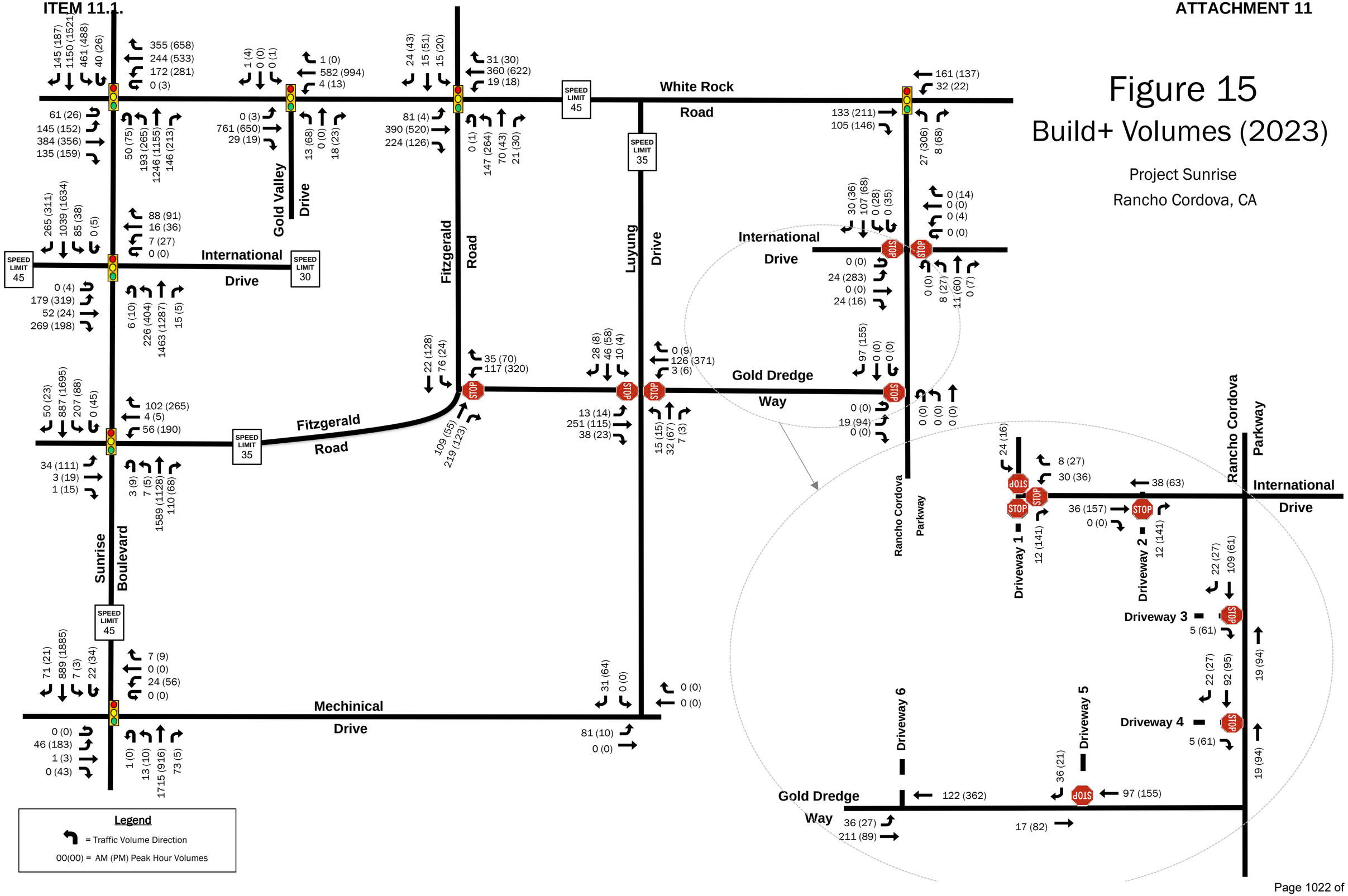
[1]2023 Traffic Plus Adjacent Approved Development.
[2]2023 Traffic Plus Adjacent Approved Development and Project Traffic.
[3]2023 Traffic Plus Adjacent Approved Development, Project Traffic and Adjacent Proposed Industrial Development.
[4]Existing Traffic Signal, LOS Based on Average Intersection, Delay in Seconds/Vehicle
[5]Signal to be installed by Others, LOS Based on Average Intersection, Delay in Seconds/Vehicle
[6]Unsignalized, LOS Reported for Worst Approach, Delay in Seconds/Vehicle
[7]All Way Stop Controlled, LOS Reported for Worst Approach for Comparison Purposes, Delay in Seconds/Vehicle

All study intersections except Sunrise Boulevard at White Rock Road during the PM peak hour operate at LOS D or better during peak hours. During the PM peak hour westbound to northbound right turns from White Rock Road to Sunrise Boulevard are greater than the capacity of the single right-turn lane serving the movement. This right turn movement is expected to be greater than the adjacent through movement, which has three dedicated lanes. Reassigning the rightmost westbound through lane as a dedicated right-turn lane and revising the associated signal heads is a potential solution to this problem. Doing so would results in LOS C with 31.6 seconds of delay during the morning peak hour and **LOS D with 42.5 seconds of delay during the evening peak hour.**

Figure 15
Build+ Volumes (2023)

Project Sunrise

Rancho Cordova, CA



H. Queue Comparison

A queuing analysis was conducted for signalized intersections along existing roads for the No Build (2023), Build (2023), and Build+ (2023) scenarios. Table 7 displays the comparison of the three scenarios. Queue lengths are based on queues lengths from Synchro® 11's Intersection Reports which can be found in Appendix G.

Table 7: Queue Comparison

Intersection	Existing Storage Lengths	95th Percentile Queue Lengths					
		No Build (2023)		Build (2023)		Build+ (2023)	
		AM	PM	AM	PM	AM	PM
Sunrise Boulevard / White Rock Road							
Eastbound Left Turn Lanes	400'	112'	#122'	112'	#122'	113'	#124'
Eastbound Right Turn Lane	700'	9'	3'	9'	3'	47'	12'
Westbound Left Turn Lanes	275'	96'	155'	96'	155'	97'	157'
Westbound Right Turn Lane	185'	178'	223'	196'	#493'	219'	#666'
Northbound Left Turn Lanes	385'	123'	#186'	123'	#186'	128'	#233'
Northbound Right Turn Lane	190'	34'	30'	49'	50'	49'	50'
Southbound Left Turn Lanes	380'	180'	#235'	195'	#275'	#289'	#300'
Southbound Right Turn Lane	175'	42'	56'	42'	56'	43'	56'
Sunrise Boulevard / International Drive							
Eastbound Left Turn Lanes	420'	67'	134'	72'	142'	73'	142'
Eastbound Right Turn Lanes	300'	32'	29'	31'	29'	31'	29'
Westbound Left Turn Lane	150'	16'	45'	16'	45'	16'	45'
Northbound Left Turn Lanes	400'	#121'	#155'	#127'	#222'	#136'	#261'
Southbound Left Turn Lane	425'	#100'	63'	#100'	60'	#103'	60'
Southbound Right Turn Lane	235'	43'	92'	43'	95'	44'	98'
Sunrise Boulevard / Fitzgerald Road							
Eastbound Left Turn Lane	150'	31'	87'	31'	59'	32'	91'
Eastbound Right Turn Lane	150'	0'	0'	0'	0'	0'	0'
Westbound Left Turn Lane	140'	37'	87'	41'	109'	44'	121'
Westbound Right Turn Lane	140'	0'	0'	9'	55'	9'	131'
Northbound Left Turn Lane	250'	21'	31'	21'	31'	22'	32'
Southbound Left Turn Lane	245'	72'	95'	#119'	121'	#217'	#181'
Sunrise Boulevard / Mechanical Drive							
Eastbound Right Turn Lane	150'	0'	0'	0'	0'	0'	0'
Westbound Right Turn Lane	150'	0'	0'	0'	0'	0'	0'
Northbound Left Turn Lane	215'	27'	26'	27'	26'	27'	24'
Southbound Left Turn Lane	240'	44'	62'	44'	62'	44'	58'
White Rock Road / Gold Valley Drive							
Eastbound Left Turn Lane	500'	-	8'	-	10'	-	11'
Westbound Left Turn Lane	400'	9'	18'	9'	23'	10'	25'
Northbound Left Turn Lane	200'	17'	52'	17'	67'	19'	76'
White Rock Road / Fitzgerald Road							
Eastbound Left Turn Lane	200'	75'	13'	76'	13'	79'	14'
Eastbound Right Turn Lane	500'	39'	32'	39'	32'	45'	43'
Westbound Left Turn Lane	200'	29'	31'	28'	32'	29'	34'
Northbound Left Turn Lane	150'	110'	171'	111'	179'	126'	239'
Southbound Left Turn Lane	150'	24'	31'	24'	32'	25'	34'

95th percentile volume exceeds capacity; queue may be longer. Queue shown is maximum after two cycles
Note: Red indicates queues are expected to exceed provided storage length.

As shown in Table 7, the provided storage lengths at Sunrise Boulevard / International Drive, Sunrise Boulevard / Fitzgerald Drive, Sunrise Boulevard / Mechanical Drive, and White Rock Road at Gold

Valley Drive are expected to be sufficient for all three scenarios, however, the two remaining intersections have turn lanes where queues may exceed existing storage.

Reassigning the rightmost (northernmost) westbound through lane as a dedicated right-turn lane on White Rock Road at Sunrise Boulevard reduces the total right turn queue during peak hours to less than the current storage capacity of the existing right turn lane.

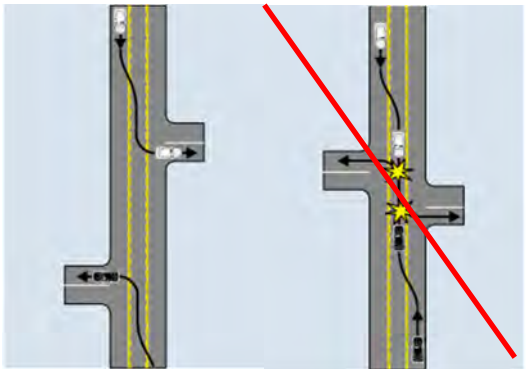
Table 8: Reassigned WB Through Lane, White Rock Road to Sunrise Boulevard Queue Summary

Intersection	Existing Storage Lengths	Synchro 95th% Q Build+ (2023)	
		AM	PM
Sunrise Boulevard / White Rock Road			
Eastbound Left Turn Lanes	400’	#125’	108’
Eastbound Right Turn Lane	700’	15’	45’
Westbound Left Turn Lanes	275’	97’	#169’
Converted Westbound Lane	800'	40’	142’
Westbound Right Turn Lane	**185’**	**40’**	**142’**
Northbound Left Turn Lanes	385’	127’	184’
Northbound Right Turn Lane	190’	22’	74’
Southbound Left Turn Lanes	380’	#236	259’
Southbound Right Turn Lane	175’	43	86’

I. Site Access

Access to the site is provided by six driveways, with separate driveways serving passenger vehicles and line-haul trucks. Four of the project driveways are dedicated to passenger vehicles, two along International Drive and two along Rancho Cordova Parkway. While the two driveways along International Drive will be limited to right-turns once International Drive is extended west to Sunrise Boulevard and is widened to six lanes, left-turns into Driveway 1 will be allowed until that time. The two driveways along Rancho Cordova Parkway are right-in/right-out only. The remaining two project driveways are located along Gold Dredge Way, the westerly driveway is an ingress-only driveway, and the easterly driveway is egress-only. All project driveways are anticipated to operate at LOS A during standard peak and project peak periods. Project peak analysis worksheets are provided in Appendix H.

Any driveways or new streets proposed to serve parcels on the south side of the Gold Dredge Way extension will either need to be aligned with project driveways or located to provide a positive offset. Sufficient space between offset driveways or streets should be provided for a minimum of one tractor-trailer truck waiting to turn left into all effected driveways. Driveways shall meet the development standards outlined in Section 5.2 of the most recent version of the Sacramento County Zoning Code. Analysis of new driveways or streets may be necessary to confirm the adequacy of offset spacing.



Positive Offset
FHWA | *Access Management in the Vicinity of Intersections*

J. Overall Findings

As more of Rio del Oro develops, based on existing roadway conditions and roadways under construction, traffic movements to and from the northwest will result in signal phases where all traffic is not served and turn lane storage capacity is insufficient for southbound left-turns toward and westbound right turns away from Rio del Oro. Increasing the percentage of green time for these movements may be beneficial until the roadway network is more fully built out. Currently funded roadway projects will alleviate some of the congestion related to these movements, but the connection of International Drive between Rancho Cordova Parkway and Sunrise Boulevard is also essential.

Sunrise Boulevard / White Rock Road

- Westbound right-turn queues may exceed available storage even without the receiving center
- PM westbound right-turning volume will exceed capacity with the project and will be further exacerbated with the addition of the potential industrial traffic.
- Long term, this condition may be alleviated with the northern extension of Rancho Cordova Parkway and eventual connection of the existing and proposed segments of International Drive.
- Recommend the City consider appropriate improvements as this intersection experiences increased congestion. One option is reassigning the adjacent through lane as a right-turn lane until Rancho Cordova Parkway is extended northward.

White Rock Road / Fitzgerald Road

- Sufficient pavement width is available to provide more left-turn storage than was assumed in the analysis.

Rancho Cordova Parkway / International Drive

- Can operate with either stop control on International Drive or as an all-way stop until overall traffic volumes increase to a level to warrant signalization. This is not expected to occur until Rancho Cordova Parkway is extended to Rancho del Oro Parkway and Rancho del Oro Parkway connects to Sunrise Boulevard or a similar connection is made to the roadway network beyond Rancho del Oro's boundaries.

Rancho Cordova Parkway / Gold Dredge Way

- Operates well with Gold Dredge Way stopped controlled at Rancho Cordova Parkway or with all approaches stopping. Signalization should be reevaluated as additional parcels within Rio del Oro develop, especially once Rancho Cordova Parkway is extended to Rancho del Oro Parkway and Rancho del Oro Parkway connects to Sunrise Boulevard.

K. Conclusions and Recommendations

The proposed receiving center will occupy an 82-acre vacant parcel that is part of Phase 5 of the Rio Del Oro Specific Plan. The project is consistent with the land use designation in the adopted Rio Del Oro Specific Plan for Business Park / Industrial Park land use. The project will construct a warehouse consisting of approximately 629,186 square feet. The warehouse will be used as an inventory receiving and storage center.

Site access will be provided by six driveways. Four driveways are proposed for personal vehicles and two driveways are proposed for line-haul trucks. The driveways are anticipated to operate efficiently as side street stop-controlled intersections. A total of 3,532 daily trips will be generated by the site, with 132 (86 entering, 46 exiting) during the AM standard peak hour and 510 (99 entering, 411 exiting) during the PM standard peak hour. The project is anticipated to be complete by 2023.

This LTA report was developed in accordance with the Sacramento County Traffic Impact Guidelines, 2020 and in coordination with City staff. The following are conclusions based on the analysis performed in this study.

No Build (2023)

- All intersections perform at an overall LOS D or better.

Build (2023)

- The proposed site is consistent with the Rio del Oro Specific Plan zoning.
- The additional of project traffic to the study network does not result in any intersections operating at a Level of Service worse that D. All intersections perform similarly to No Build (2023), with expected increases in delays. Project driveways operate at LOS A.

Build+ (2023)

- With the exception of White Rock Road at Sunrise Boulevard where LOS will drop to E during the evening peak hour, all intersections will continue to operate at acceptable levels of service.
- Sunrise Boulevard / White Rock Road: As the intersection of Sunrise Boulevard and White Rock Road experiences an increase in congestion over time, we recommend the City consider other improvement options such as dual right-turn lanes on the westbound approach to the intersection.
- Project driveways operate at LOS A.
- Street or driveway connections to the property opposite the Receiving Center on Gold Dredge Way should either be aligned with the Receiving Center's driveways or offset a minimum of 150 feet or a sufficient length to accommodate left-turn queues into all driveways.

APPENDIX

Appendix A –

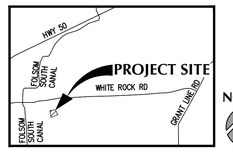
Site Plan

Approved Scoping Memorandum

Trip Generation Memorandum

VICINITY MAP

SCALE: NTS



PROPERTY DESCRIPTION

ADDRESS: RANCHO CORDOVA PKWY & INTERNATIONAL DRIVE, RANCHO CORDOVA, CA

GREENBELT

69-A
2.25± AC GR
1.56± AC NET

69-B
7.54± AC GR
6.21± AC NET

69-C
18.31± AC GR
15.62± AC NET

CUSTOMER SUBSTATION

DETENTION BASIN

STORMWATER BASIN

INTERNATIONAL DRIVE

74-A
1.93± AC

GOLD DREDGE WAY

LIVING DRIVE

(P) BUILDING
629,186 SF

PARCEL 73A

STORMWATER BASIN
BOTTOM: 148.50
TOP:153.00

STORMWATER BASIN
BOTTOM: 152.00
TOP:157.00

GOLD DREDGE WAY

RANCHO CORDOVA PARKWAY

PARCEL 74B

PARCEL 72A

PARCEL 72B

PARCEL 72C

PARCEL 73E

PARCEL 72D

PARCEL 73B

GREENBELT

NORTH

SCALE 1 INCH = 100 FEET
100 0 100 200

kpff
2250 Douglas Blvd, Suite 200
Roseville, CA 95661
O:916.772.7688
F:916.772.7699
www.kpff.com

Engineer's Stamp

PRELIMINARY NOT FOR CONSTRUCTION

Project

PROJECT SUNRISE FACILITY
RANCHO CORDOVA, CA

Sheet Title

SITE PLAN EXHIBIT

PANATTONI®

Date	10/04/2021
Designed	RC
Drawn	SL
Checked	RC
JOB NO.	2100-044
Drawing No.	

EX

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XREFs: 2100-044_xsl-Title 2-50-ARCH D-Base XR-SMURBAN.dwg

MEMORANDUM

To: Byron Tang, City of Rancho Cordova Traffic

From: Gina Gilgo, PE (gina.gilgo@NV5.com)

Date: December 21, 2021

Re: Project Sunrise Receiving Center
Rancho Cordova, CA
Truck Trip Reassignments

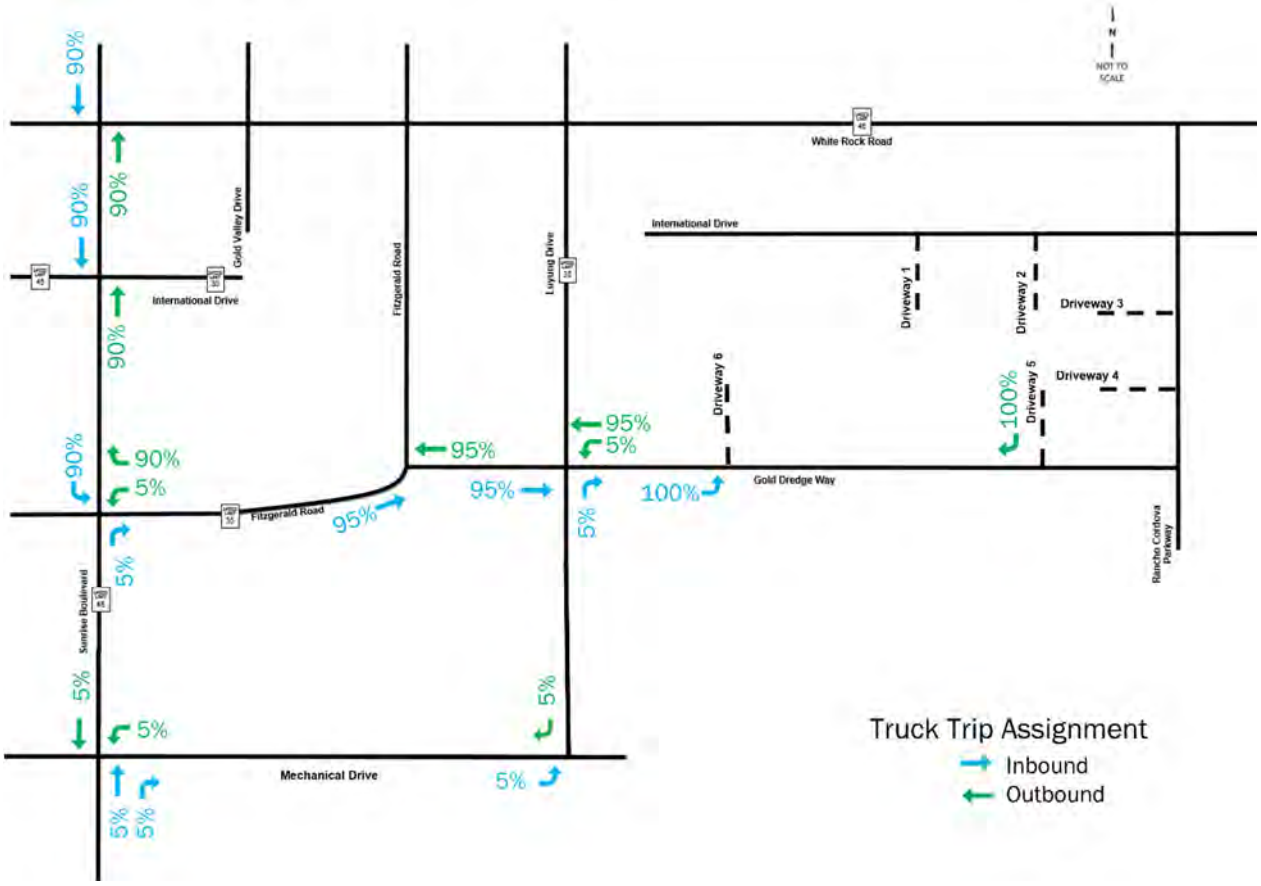
This memorandum presents updated trip assignments for truck trips for the proposed receiving center within the Rio Del Oro development in the City of Rancho Cordova, CA. The updated trip assignments will be used in pavement evaluation and design as well as an updated version of the project's Local Transportation Analysis. Anticipated truck volumes and typical trailer weights are also included.

Truck Trip Distribution

No adjustments in truck trip distribution are proposed. Ninety percent of the trucks are expected to use US 50. The remaining 10% are expected to use other routes south of the site.

Truck Trip Assignment

Most trucks (90%) will use Sunrise Boulevard north of Fitzgerald Road to access US 50. Trucks traveling to and from the south (10%) will use Sunrise Boulevard south of Mechanical Drive. That traffic will be split evenly between Fitzgerald Road and Luyung Drive as illustrated below.



Truck Volumes and Weights

With a total of 604 daily one-way truck trips, daily site generated truck trips by segment are as follows:

Table 1: Site Daily Truck Trips

Roadway Segment	Daily Truck Trips
Gold Dredge Way between the site and Luyung Drive	604
Gold Dredge Way between Luyung Drive and Fitzgerald Road	574
Fitzgerald Road between Gold Dredge Way and Sunset Boulevard	574
Luyung Drive/Mechanical Drive between Gold Dredge Way and Sunset Boulevard	30

Site trucks typically pull loaded trailers weighing 75,000 pounds.

Existing Truck Traffic Data

Daily traffic volumes and vehicle classification data were not collected for the above roadway segments. The estimate below is based on peak hour turning movement counts collected for the Local Transportation Analysis and typical heavy truck percentages for various industrial land uses (see ITE's 11 Edition of *Trip Generation*).

Table 2: Estimated Existing Daily Truck Trips

Roadway Segment	Daily Truck Trips
Gold Dredge Way between the site and Luyung Drive	0
Gold Dredge Way between Luyung Drive and Fitzgerald Road	116
Fitzgerald Road between Gold Dredge Way and Sunset Boulevard	382
Luyung Drive/Mechanical Drive between Gold Dredge Way and Sunset Boulevard	283

MEMORANDUM

To: Byron Tang, City of Rancho Cordova Traffic

From: Gina Gilgo, PE (gina.gilgo@NV5.com)

Date: September 17, 2021

Re: Project Sunrise Receiving Center
Rancho Cordova, CA
Transportation Scoping Document

This memorandum documents the scope of the local transportation analysis for the proposed receiving center within the Rio Del Oro development in the City of Rancho Cordova, CA.

SITE INFORMATION

The proposed receiving center will occupy an 82-acre vacant parcel that is part of Phase 5 of the Rio Del Oro Specific Plan. It includes construction of a 629,186 SF warehouse building, 986 parking stalls for personal vehicles, 139 truck docking spaces, and 686 truck trailer spaces that will be used for storage (refer to Attachment A). Truck assess is provided solely from Gold Dredge Way.

Opening Year and "Existing Traffic" Volumes

The receiving center is scheduled to begin full operation before the end of 2023. Existing traffic will include peak hour traffic counts adjusted as necessary for Covid-19 conditions and increased by 1%/year to represent 2023 conditions, plus traffic from the residential development underway opposite International Drive and the Delivery Station proposed at 11427 White Rock Road.

Analysis Scenarios

As applicable, existing conditions in 2023 with existing traffic and any proposed operational improvements (i.e., new traffic signals along White Rock Road) will be the base scenario. The 2023 existing plus project scenario will include site traffic with necessary operational controls and roadway improvements to achieve acceptable operating conditions. A short-term (2023) cumulative scenario will build upon the 2023 existing plus project scenario to add traffic from the +/- 819,000 SF warehousing development currently proposed on the south side of Gold Dredge Way.

Level of Service Analysis Locations

The following intersections will be analyzed

- All site driveways (6)
- International Drive at Rancho Cordova Parkway
- White Rock Road at Rancho Cordova Parkway
- White Rock Road at Fitzgerald Road
- White Rock Road at Gold Valley Drive
- White Rock Road at Sunrise Boulevard
- Gold Dredge Way at Luyung Drive
- Gold Dredge Way at Fitzgerald Road
- Fitzgerald Road at Sunrise Boulevard
- Sunrise Boulevard at International Drive
- Rancho Cordova Parkway at Gold Dredge Way

Trip Generation

Trip Generation characteristics for the receiving center were documented in a memo to the City on August 18, 2021. The expected trips are included in Table 1.

Table 1: Receiving Center Peak Hour Trip Generation

Vehicle Type	Daily	Peak Hours of the Adjacent Street				Peak Hours of the Generator			
		AM		PM		5:00 – 6:00 AM		2:00 – 3:00 PM	
		In	Out	In	Out	In	Out	In	Out
Passenger Vehicles	2,928	74	34	90	404	503	126	197	388
Line-Haul Trucks	604	12	12	9	7	17	16	6	6
Total	3,532	86	46	99	411	520	142	203	394

Peak hours of the adjacent street will be analyzed for all locations listed above. Driveway operations during the peak hours of the site will also be analyzed to provide additional queuing information for design purposes.

Vicinity Transportation Infrastructure

While the Rio Del Oro Specific Plan includes plans for a robust transportation system, most of that infrastructure will not be in place when the receiving center begins to operate. For the receiving center's opening year, the following roadways are expected to be accessible:

- Rancho Cordova Parkway from White Rock Road to Gold Dredge Way (originally Collector C) as a four-lane divided roadway.
- International Drive along the project's northern border from the westernmost driveway to Collector A (but not connected to any other streets west of the Rio Del Oro boundary), as a four-lane divided route.
- Gold Dredge Way extended east to Rancho Cordova Parkway, as a two-lane roadway.

Trip Distribution & Assignment

Project traffic distribution would vary depending on the type of vehicle and roadway access. Line haul trucks entering the site come from many different origins, but those exiting the site are bound for larger warehouses and sort centers as well. The employees entering and exiting the site are considered typical commuter home-to-work and work-to-home trips.



Ninety percent of the trucks are expected to use US 50. The remaining 10% are expected to use other routes south of the site. All trucks would use Sunrise Boulevard. Line haul trucks will enter and exit the site via Gold Dredge Way. Trucks will enter the site by turning left into the site's westernmost driveway and exit the easternmost driveway by turning right onto Gold Dredge Way. The assignment of truck trips is included in Attachment B.



Employees are expected to primarily live north (40%) and west (40%) of the site. Yet another 10% each are expected to live south and east of the site. Driveways accessing the passenger vehicle parking lot on the east side of the proposed building will accommodate employees. These driveways are expected to be located on International Drive and Rancho Cordova Parkway. Ultimately most of these driveways will likely be limited to right-turns due to medians proposed for the ultimate cross-sections for these roadways. Therefore, except for the westernmost driveway on International Drive, passenger vehicles have been assigned as right-turns both entering and exiting the site. The initial assignment of trips is illustrated in Attachment C. Once International Drive is

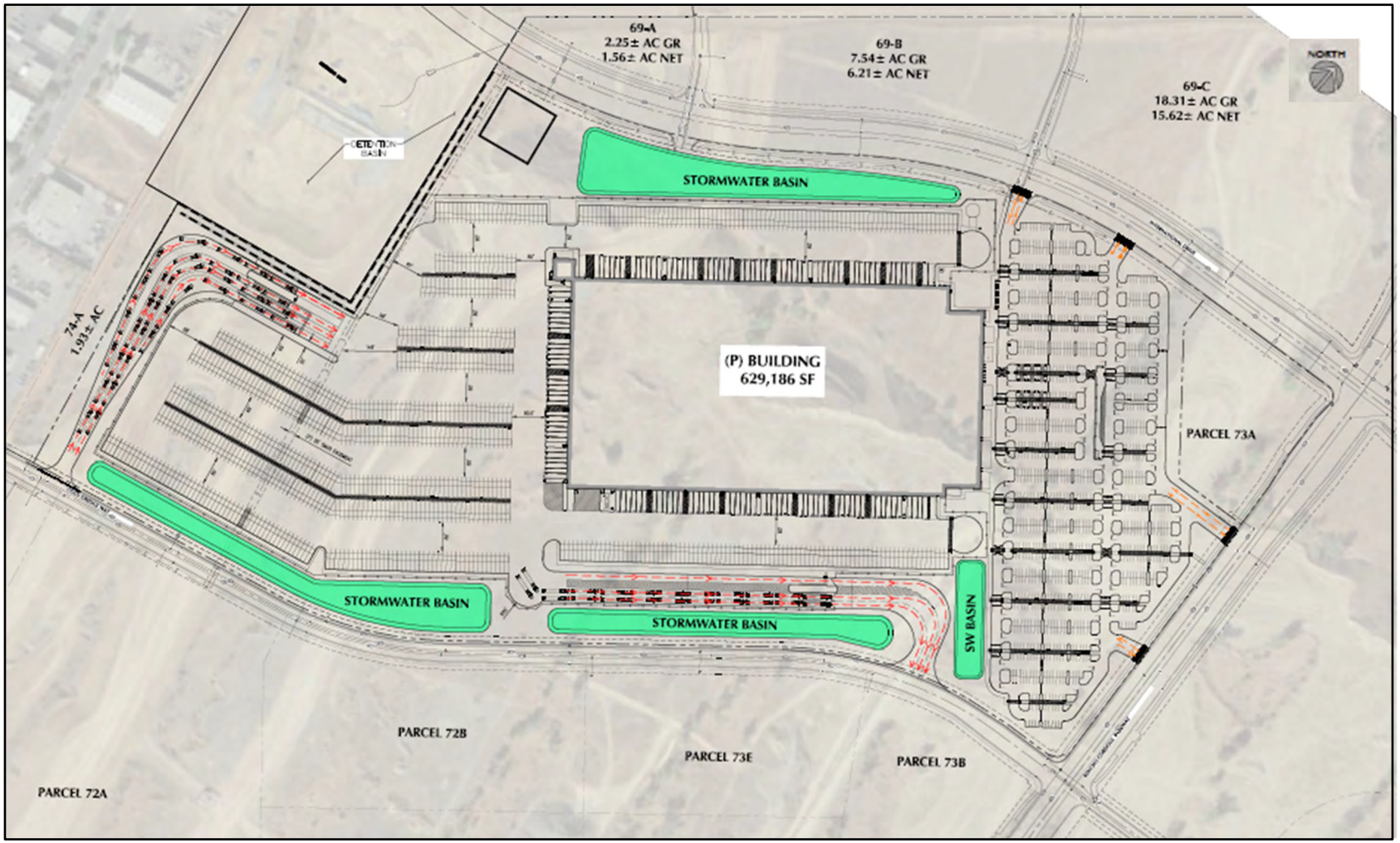
extended west to connect with Sunrise Boulevard, passenger vehicles would likely approach the site as illustrated on the second page of Attachment C.

Access and Circulation

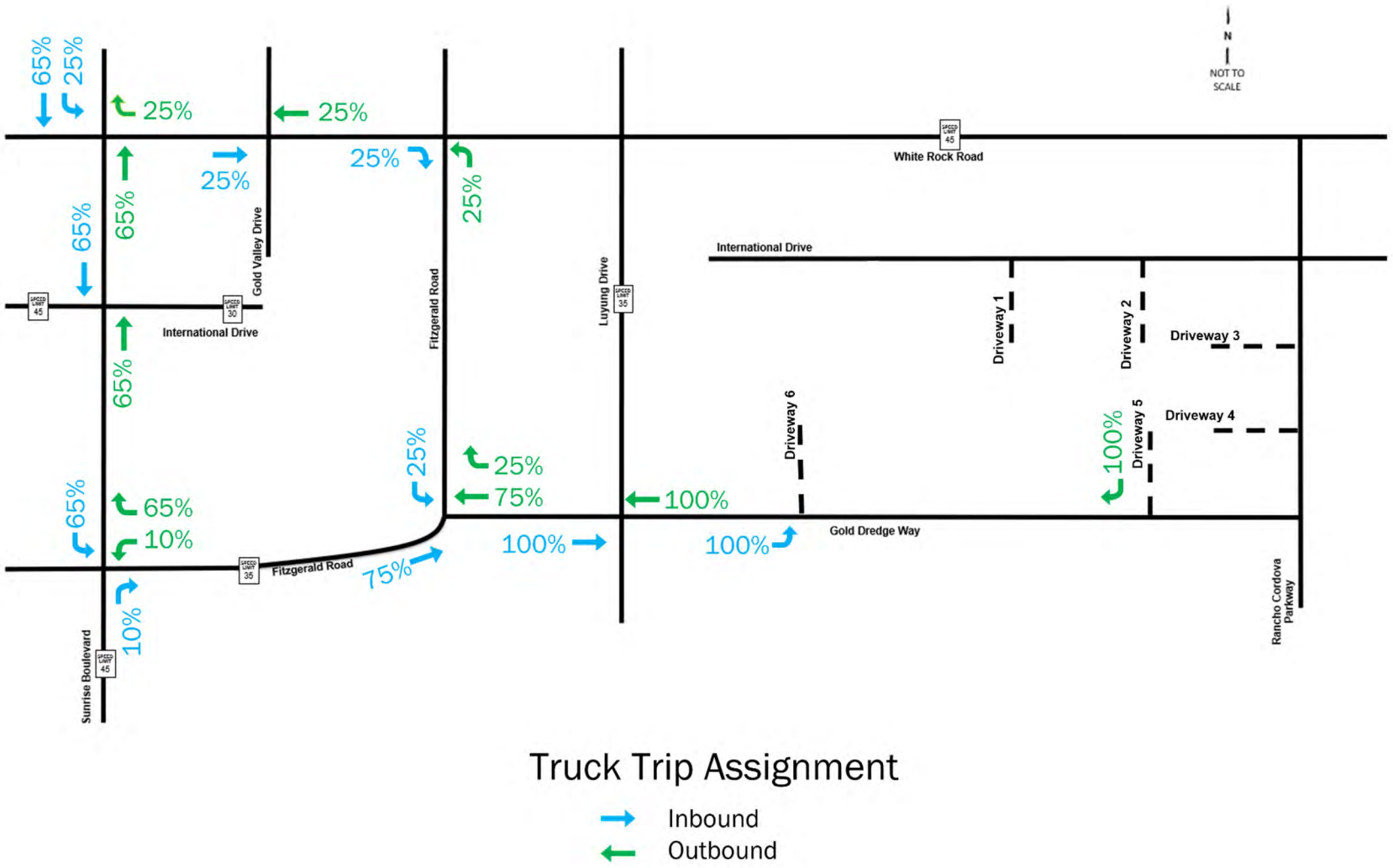
Site access and circulation will be evaluated, including opening conditions and conditions with ultimate cross-sections for the adjacent roadways. This will include estimates of turn lane storage and traffic control needs at site driveways. The possibility of future driveways aligning with proposed driveways on Gold Dredge Way will be considered especially regarding potential signalization of such driveways and future traffic control needs at the intersection of Rancho Cordova Parkway and Gold Dredge Way.

Data to be Provided/Approved by the City

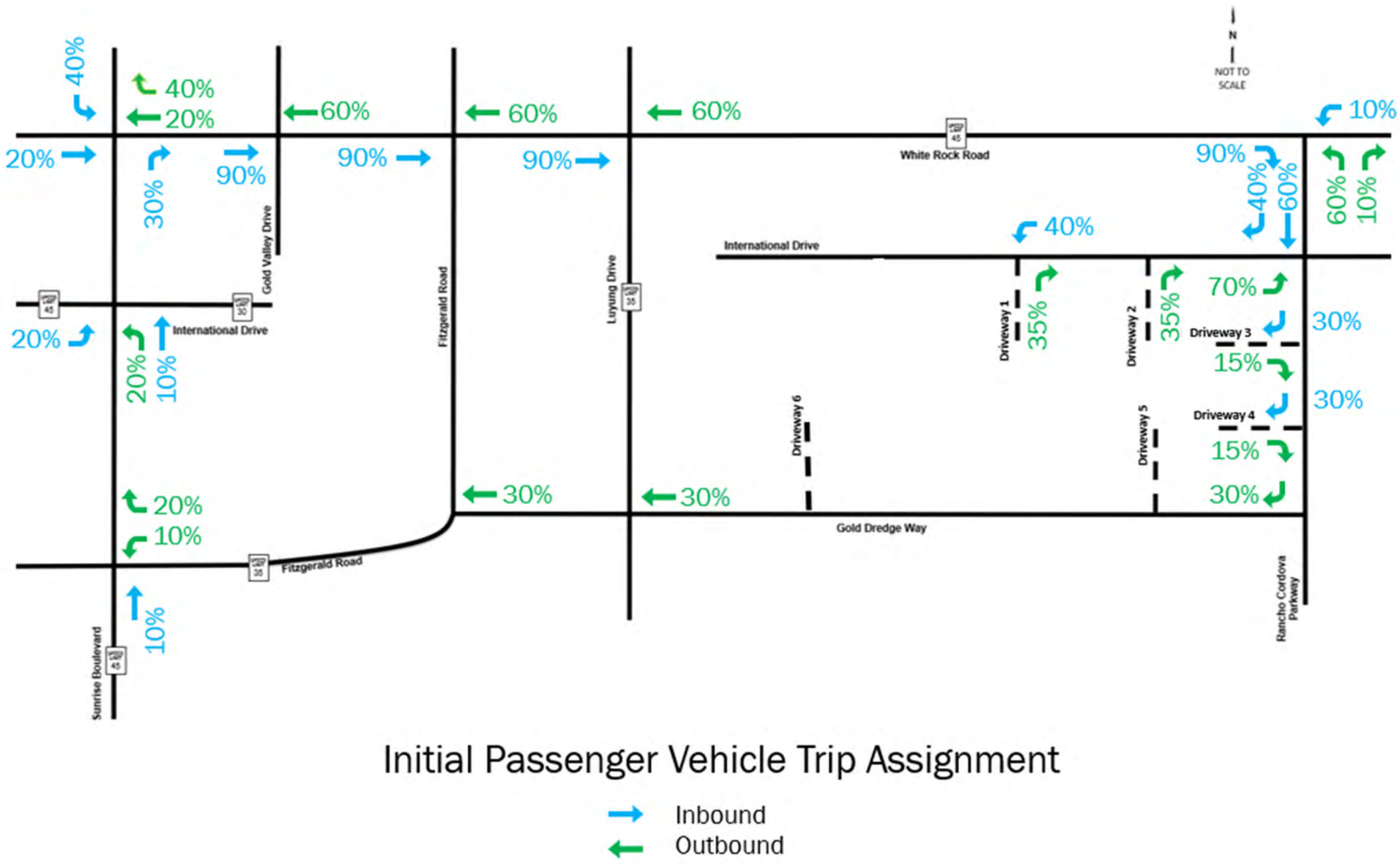
- Signal plans and timing data for any signalized locations



Attachment A



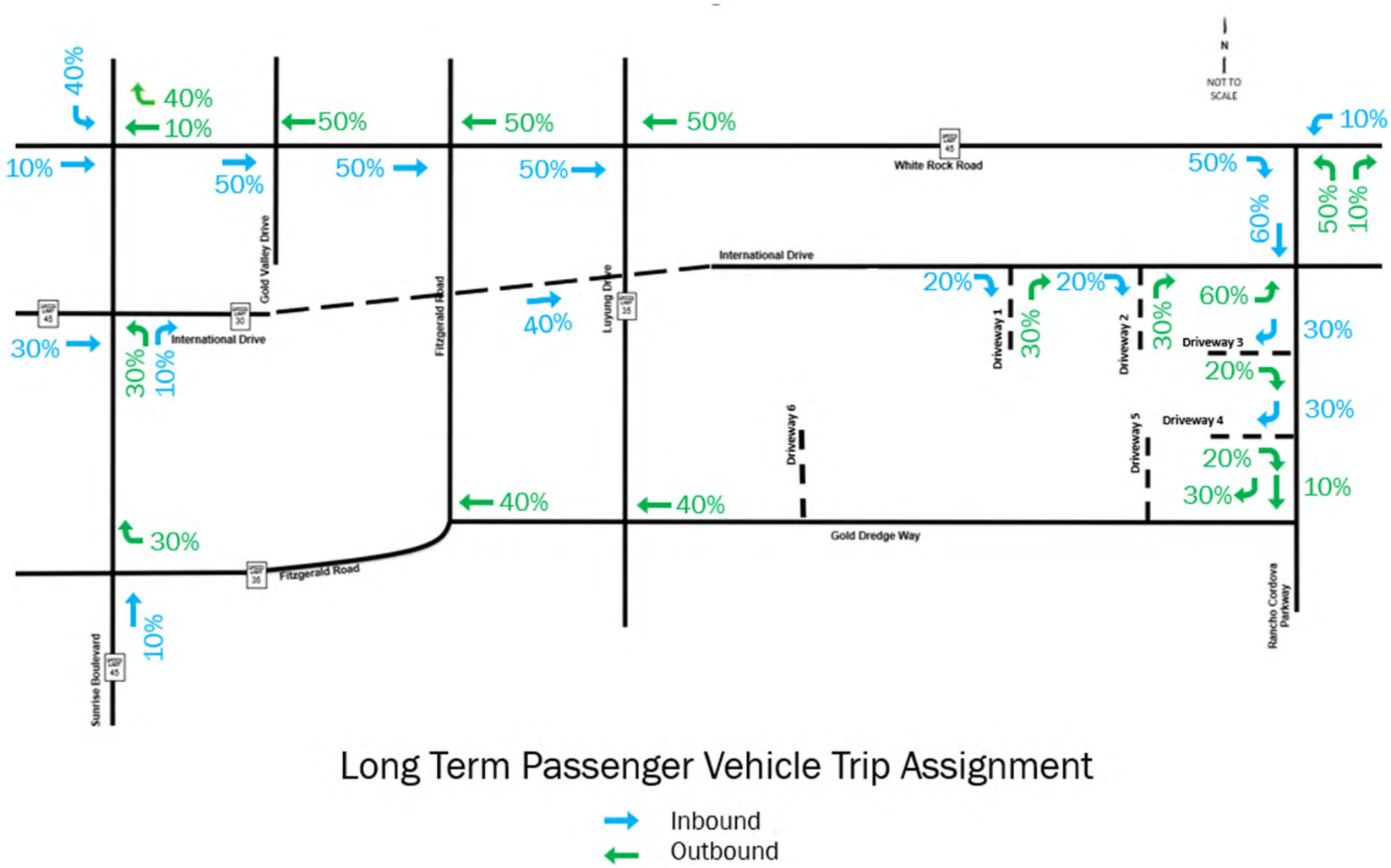
Attachment B



Initial Passenger Vehicle Trip Assignment

Inbound

Outbound



Long Term Passenger Vehicle Trip Assignment

Inbound

Outbound

MEMORANDUM

To: Byron Tang, City of Rancho Cordova Traffic

From: Gina Gilgo, PE (gina.gilgo@NV5.com)

Date: August 18, 2021

Re: Project Sunrise Receiving Center
Rancho Cordova, CA
Traffic Generation Update (new Site Plan)

This memo documents the trip generation characteristics of the proposed receiving center in Rancho Cordova, CA and compares the resulting daily and peak hour tips that can be expected to those originally anticipated for the parcel in the Rio Del Oro Specific Plan Environmental Impact Report (EIR).

Site Information

The project will occupy an 82-acre vacant parcel that is part of Phase 5 of the Rio Del Oro Specific Plan. It includes construction of a 629,186 SF warehouse building, 986 parking stalls for personal vehicles, 139 truck docking spaces, and 686 truck trailer spaces that will be used for storage (refer to **Attachment A**). The Rio Del Oro Specific Plan identifies the project parcel as industrial park zoning which is consistent with the site's intended use. Access to the site will be provided along International Drive, Rancho Cordova Parkway, and Gold Dredge Way.

Rio Del Oro Specific Plan Trip Generation

The Rio Del Oro Specific Plan EIR documents the traffic analyses for the proposed mixed-use development and includes aggregate trip generation for the Specific Plan. This information is recreated in Table 1 and was based on the 2001 version of the SACMET travel demand forecasting model. Total trips do not include those between all land uses within Rio del Oro, but external trips do include all trips with origins or destinations outside of Rio del Oro.

Table 1: Rio del Oro Trip Generation

Scenario		AM Peak Hour	PM Peak Hour	Daily
Buildout	Total Trips	19,650	20,570	229,200
	External Trips	14,750	15,190	168,470

Site Specific Trip Generation

The tenant provided a site-specific traffic schedule based on the receiving center's unique operations and key characteristics. That schedule is provided in Attachment B. The trip schedule is based on operations of similar facilities modified to reflect the building size and number of trailer storage spaces as well as the number of employees (1,464) needed to operate 24-hours/day. It is not based on actual traffic counts. This traffic schedule is proposed for use in analyzing the traffic impacts of the receiving center to best reflect anticipated traffic volumes. Table 2 compares the peak hour and daily trips that would be expected if the site were used for other various purposes based on ITE's Trip Generation manual (2017). The proposed trip schedule includes higher volumes than other potential uses.

Table 2: Trip Generation Comparison

Development	Trip Source	Subject Parcel Trips		
		AM Peak Hour	PM Peak Hour	Daily
Light Industrial	ITE 2017	108	84	1,306
Warehouse	ITE 2017	70	72	628
High-Cube Transload/Short-Term Storage Warehouse	ITE 2017	50	63	880
Receiving Center	Tenant	133	510	3,532

Trip Generation Comparison

The Rio Del Oro Specific Plan EIR does not identify trip generation rates for each land use and/or parcel for each phase of the development. Yet, it is reasonable to compare trips that would have been expected to have been generated by the subject parcel in 2006 to the trip generation characteristics of the proposed receiving center. That comparison is summarized in Table 3. Trip estimates for the subject parcel as an industrial park are based on the then-current edition of the Institute of Engineers' Trip Generation, (7th Edition, 2003).

Table 3: Trip Generation Comparison

Development	Trip Source	Subject Parcel Trips		
		AM Peak Hour	PM Peak Hour	Daily
Industrial Park	ITE 2003	701	725	5,175
Receiving Center	Tenant	133	510	3,532

This comparison indicates the use of subject parcel as a receiving center is consistent with the Rio del Oro Specific Plan, in terms of traffic and transportation.

Receiving Center Peak Hour Trip Generation

Table 4 summarizes traffic for the proposed receiving center by peak hour, direction, and vehicle type.

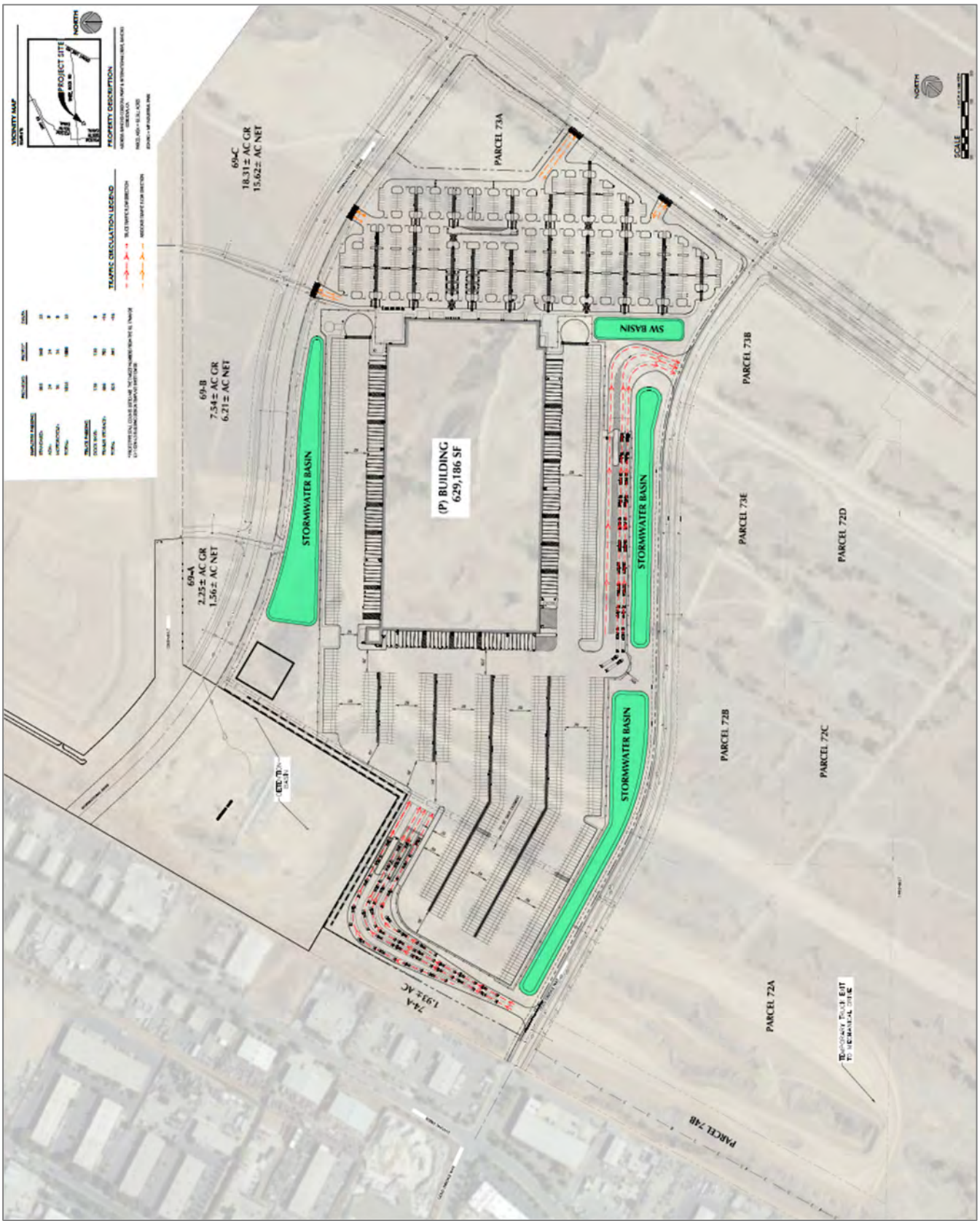
Table 4: Receiving Center Peak Hour Trip Generation

Vehicle Type	Peak Hours of the Adjacent Street[1]				Peak Hours of the Generator			
	AM		PM		6:00 – 7:00 AM		5:30 – 6:30 PM	
	In	Out	In	Out	In	Out	In	Out
Passenger Vehicles	74	34	90	404	503	126	197	388
Line-Haul Trucks	12	12	9	7	17	16	6	6

[1]One hour between 7:00 – 9:00 AM & one hour between 4:00 – 6:00 PM

Attachment A: Preliminary Site Plan
Attachment B: Project Traffic Schedule

Attachment A – Preliminary Site Plan



Attachment B – Project Traffic Schedule

Traffic Schedule

Cars

Average Weekday - Non Peak

	In	Out	Total
00:00	10	20	30
01:00	3	10	13
02:00	3	6	9
03:00	5	17	22
04:00	5	26	31
05:00	66	322	388
06:00	46	30	76
06:15	97	26	123
06:30	159	32	191
06:45	201	38	239
07:00	40	17	57
07:15	12	8	20
07:30	10	5	15
07:45	12	4	16
08:00	21	21	42
09:00	15	16	31
10:00	15	16	31
11:00	40	44	84
12:00	23	38	61
13:00	15	31	46
14:00	14	31	45
15:00	10	39	49
16:00	18	41	59
17:00	15	12	27
17:15	21	56	77
17:30	25	265	290
17:45	29	71	100
18:00	52	31	83
18:15	91	21	112
18:30	128	31	159
18:45	146	36	182
19:00	59	30	89
20:00	14	21	35
21:00	16	17	33
22:00	6	9	15
23:00	21	27	48
	1,464	1,464	2,928

Trucks

Average Weekday - Non Peak

	In	Out	Total
00:00	22	22	44
01:00	25	25	49
02:00	23	23	47
03:00	18	18	37
04:00	20	20	40
05:00	19	19	38
06:00	4	3	7
06:15	4	4	8
06:30	4	4	9
06:45	4	4	9
07:00	3	3	6
07:15	3	3	6
07:30	3	3	6
07:45	3	3	6
08:00	9	9	17
09:00	10	10	20
10:00	13	13	26
11:00	11	12	23
12:00	14	14	28
13:00	10	10	20
14:00	9	9	17
15:00	9	9	17
16:00	7	7	15
17:00	3	3	6
17:15	2	1	3
17:30	2	1	3
17:45	2	1	3
18:00	1	2	3
18:15	1	2	3
18:30	1	2	3
18:45	1	2	3
19:00	4	4	9
20:00	4	4	8
21:00	6	6	12
22:00	13	13	26
23:00	14	15	29
	302	302	604

Total

Average Weekday - Non Peak

	In	Out	Total
00:00	32	42	74
01:00	28	35	62
02:00	26	29	56
03:00	23	35	59
04:00	25	46	71
05:00	85	341	426
06:00	50	33	83
06:15	101	30	131
06:30	163	36	200
06:45	205	42	248
07:00	43	20	63
07:15	15	11	26
07:30	13	8	21
07:45	15	7	22
08:00	30	30	59
09:00	25	26	51
10:00	28	29	57
11:00	51	56	107
12:00	37	52	89
13:00	25	41	66
14:00	23	40	62
15:00	19	48	66
16:00	25	48	74
17:00	18	15	33
17:15	23	57	80
17:30	27	266	293
17:45	31	72	103
18:00	53	33	86
18:15	92	23	115
18:30	129	33	162
18:45	147	38	185
19:00	63	34	98
20:00	18	25	43
21:00	22	23	45
22:00	19	22	41
23:00	35	42	77
	1,765	1,767	3,532

Appendix B – Existing Traffic Data

July 22, 2021, Turning Movement Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 21-070110-004
Date: 7/22/2021

Total

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
5:00 AM	2	34	6	1	17	44	4	2	7	32	7	0	2	8	2	0	168
5:15 AM	6	45	7	2	36	62	7	5	9	40	4	2	2	13	5	0	245
5:30 AM	9	74	5	2	47	71	8	2	3	64	9	2	2	16	7	0	321
5:45 AM	18	97	12	2	75	102	3	7	26	143	20	1	5	23	20	2	556
6:00 AM	18	90	11	3	50	68	14	3	14	66	6	4	10	35	26	3	421
6:15 AM	17	97	10	2	53	115	16	3	10	86	10	0	14	33	37	0	503
6:30 AM	18	151	15	7	58	154	18	6	17	59	6	4	17	33	31	0	594
6:45 AM	20	151	19	4	59	145	29	3	30	100	10	10	9	31	25	0	645
7:00 AM	20	183	28	7	51	166	17	3	12	48	12	8	11	33	33	0	632
7:15 AM	24	180	18	15	46	169	22	7	22	50	12	7	17	23	40	0	652
7:30 AM	30	188	13	3	48	180	24	9	29	58	9	13	25	37	35	0	701
7:45 AM	37	198	14	4	62	194	27	5	22	70	20	13	25	31	37	0	759
8:00 AM	30	222	26	11	40	183	22	5	22	54	15	7	15	33	36	0	721
8:15 AM	27	188	31	8	43	172	24	5	23	32	12	7	14	33	31	0	650
8:30 AM	26	176	22	6	60	152	26	6	29	39	27	7	19	32	32	0	659
8:45 AM	30	191	19	8	65	178	22	5	22	41	20	7	27	24	36	0	695
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	332	2265	256	85	810	2155	283	76	297	982	199	92	214	438	433	5	8922
APPROACH %'s :	11.30%	77.09%	8.71%	2.89%	24.37%	64.83%	8.51%	2.29%	18.92%	62.55%	12.68%	5.86%	19.63%	40.18%	39.72%	0.46%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	121	788	71	33	196	726	95	26	95	232	56	40	82	124	148	0	2833
PEAK HR FACTOR :	0.818	0.887	0.683	0.550	0.790	0.936	0.880	0.722	0.819	0.829	0.700	0.769	0.820	0.838	0.925	0.000	0.933
	0.876				0.905				0.846				0.912				

NOON	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
2:00 PM	42	213	17	12	71	235	25	8	25	53	26	9	42	68	55	1	902
2:15 PM	37	234	14	7	71	219	22	13	19	63	20	3	29	50	59	0	860
2:30 PM	42	244	13	13	62	255	23	6	27	73	26	2	33	118	80	3	1020
2:45 PM	33	226	13	10	82	258	16	7	20	62	28	9	41	77	62	0	944
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	154	917	57	42	286	967	86	34	91	251	100	23	145	313	256	4	3726
APPROACH %'s :	13.16%	78.38%	4.87%	3.59%	20.83%	70.43%	6.26%	2.48%	19.57%	53.98%	21.51%	4.95%	20.19%	43.59%	35.65%	0.56%	
PEAK HR :	02:00 PM - 03:00 PM																TOTAL
PEAK HR VOL :	154	917	57	42	286	967	86	34	91	251	100	23	145	313	256	4	3726
PEAK HR FACTOR :	0.917	0.940	0.838	0.808	0.872	0.937	0.860	0.654	0.843	0.860	0.893	0.639	0.863	0.663	0.800	0.333	0.913
	0.938				0.946				0.908				0.767				

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
4:00 PM	41	204	23	18	52	225	33	11	33	64	43	6	44	76	76	1	950
4:15 PM	40	254	20	8	51	262	31	9	16	61	16	12	34	54	62	1	931
4:30 PM	36	224	24	14	53	291	36	5	27	53	36	10	51	94	67	1	1022
4:45 PM	35	218	21	16	71	269	47	5	24	47	16	4	44	84	48	0	949
5:00 PM	47	224	24	17	51	335	27	2	39	56	37	5	43	71	71	1	1050
5:15 PM	51	203	23	12	53	261	35	8	28	54	26	1	51	73	66	0	945
5:30 PM	37	232	19	16	34	239	22	6	22	35	17	7	43	62	64	0	855
5:45 PM	31	171	14	13	51	259	25	7	17	43	10	4	38	51	46	1	781
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	318	1730	168	114	416	2141	256	53	206	413	201	49	348	565	500	5	7483
APPROACH %'s :	13.65%	74.25%	7.21%	4.89%	14.52%	74.70%	8.93%	1.85%	23.71%	47.53%	23.13%	5.64%	24.54%	39.84%	35.26%	0.35%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	169	869	92	59	228	1156	145	20	118	210	115	20	189	322	252	2	3966
PEAK HR FACTOR :	0.828	0.970	0.958	0.868	0.803	0.863	0.771	0.625	0.756	0.938	0.777	0.500	0.926	0.856	0.887	0.500	0.944
	0.953				0.933				0.845				0.898				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & International Dr
City: Rancho Cordova
Control: Signalized

Project ID: 21-070110-008
Date: 7/22/2021

Total

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				International Dr				International Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	1	3	1	0	2	1	2	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
5:00 AM	4	39	0	0	2	46	3	0	5	0	11	0	0	0	0	0	110
5:15 AM	6	59	1	0	1	53	4	0	5	0	16	0	0	0	0	0	145
5:30 AM	5	77	0	0	4	59	4	0	14	2	17	0	0	0	0	0	182
5:45 AM	13	123	1	0	3	87	10	0	19	5	29	0	0	0	1	0	291
6:00 AM	12	99	0	0	3	74	4	0	9	3	20	0	0	1	1	0	226
6:15 AM	13	125	1	1	5	110	14	0	11	10	15	0	0	2	6	0	313
6:30 AM	13	167	3	0	11	122	14	0	15	9	19	0	0	0	3	0	376
6:45 AM	21	176	1	2	9	127	17	0	18	10	29	0	1	3	7	0	421
7:00 AM	24	199	1	0	11	133	24	0	23	8	20	0	0	7	10	0	460
7:15 AM	34	207	0	0	9	143	27	0	27	7	32	0	0	1	5	0	492
7:30 AM	33	232	3	2	10	156	41	0	14	3	28	0	3	2	3	0	530
7:45 AM	46	231	1	1	21	160	37	0	28	14	74	0	0	2	4	0	619
8:00 AM	29	245	4	0	16	153	32	0	32	10	46	0	1	5	10	0	583
8:15 AM	30	212	2	1	9	151	33	0	23	4	29	0	1	2	8	0	505
8:30 AM	17	201	0	3	8	141	26	1	29	1	31	0	3	2	3	0	466
8:45 AM	22	215	0	0	10	177	31	0	31	2	43	0	1	1	10	0	543
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	322	2607	18	10	132	1892	321	1	303	88	459	0	10	28	71	0	6262
APPROACH %'s :	10.89%	88.16%	0.61%	0.34%	5.63%	80.65%	13.68%	0.04%	35.65%	10.35%	54.00%	0.00%	9.17%	25.69%	65.14%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	138	920	10	4	56	620	143	0	97	31	177	0	5	11	25	0	2237
PEAK HR FACTOR :	0.750	0.939	0.625	0.500	0.667	0.969	0.872	0.000	0.758	0.554	0.598	0.000	0.417	0.550	0.625	0.000	0.903
		0.961				0.939				0.657				0.641			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	1	3	1	0	2	1	2	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	29	236	3	2	4	229	54	1	34	6	34	0	3	6	22	0	663
2:15 PM	41	229	2	1	8	208	23	2	25	3	38	0	2	2	8	0	592
2:30 PM	37	255	1	3	4	250	38	3	29	7	44	0	2	5	11	0	689
2:45 PM	44	224	1	2	7	252	40	3	27	2	37	0	0	3	8	0	650
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	151	944	7	8	23	939	155	9	115	18	153	0	7	16	49	0	2594
APPROACH %'s :	13.60%	85.05%	0.63%	0.72%	2.04%	83.39%	13.77%	0.80%	40.21%	6.29%	53.50%	0.00%	9.72%	22.22%	68.06%	0.00%	
PEAK HR :	02:00 PM - 03:00 PM																TOTAL
PEAK HR VOL :	151	944	7	8	23	939	155	9	115	18	153	0	7	16	49	0	2594
PEAK HR FACTOR :	0.858	0.925	0.583	0.667	0.719	0.932	0.718	0.750	0.846	0.643	0.869	0.000	0.583	0.667	0.557	0.000	0.941
		0.938				0.932				0.894				0.581			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	1	3	1	0	2	1	2	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	42	237	2	4	5	303	47	0	35	6	26	0	5	6	10	0	728
4:15 PM	56	243	1	3	6	260	44	1	40	4	34	0	3	5	16	0	716
4:30 PM	49	236	1	2	9	336	45	2	39	4	33	0	6	9	20	0	791
4:45 PM	49	220	3	2	6	278	39	0	42	5	28	0	4	10	18	0	704
5:00 PM	68	238	0	2	4	338	71	2	49	3	62	1	7	5	14	0	864
5:15 PM	48	234	0	2	10	284	58	0	51	3	31	2	4	4	10	0	741
5:30 PM	49	230	0	0	2	249	49	0	34	3	34	0	1	4	9	0	664
5:45 PM	28	188	0	0	4	257	48	2	30	1	19	0	1	6	6	0	590
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	389	1826	7	15	46	2305	401	7	320	29	267	3	31	49	103	0	5798
APPROACH %'s :	17.39%	81.63%	0.31%	0.67%	1.67%	83.54%	14.53%	0.25%	51.70%	4.68%	43.13%	0.48%	16.94%	26.78%	56.28%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	214	928	4	8	29	1236	213	4	181	15	154	3	21	28	62	0	3100
PEAK HR FACTOR :	0.787	0.975	0.333	1.000	0.725	0.914	0.750	0.500	0.887	0.750	0.621	0.375	0.750	0.700	0.775	0.000	0.897
		0.937				0.893				0.767				0.793			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & Fitzgerald Rd
City: Rancho Cordova
Control: Signalized

Project ID: 21-070110-007
Date: 7/22/2021

Total

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				Fitzgerald Rd				Fitzgerald Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1.5	0.5	1	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
5:00 AM	0	44	4	0	9	46	1	0	0	0	0	0	2	0	1	0	107
5:15 AM	0	57	6	0	9	52	2	0	0	0	0	0	2	0	2	0	130
5:30 AM	0	92	12	0	13	59	2	1	0	0	0	0	1	1	2	0	183
5:45 AM	0	127	16	0	19	90	2	0	0	1	0	0	3	0	4	0	262
6:00 AM	0	106	12	0	15	61	2	0	4	0	0	0	2	1	2	0	205
6:15 AM	0	135	14	1	10	94	3	2	0	0	0	0	2	1	2	0	264
6:30 AM	0	172	11	0	10	107	5	0	4	0	0	0	12	1	3	0	325
6:45 AM	3	205	13	0	11	139	2	0	1	0	1	0	5	2	4	0	386
7:00 AM	0	230	23	0	27	103	7	0	3	0	0	0	4	0	4	0	401
7:15 AM	1	225	16	0	15	138	5	0	4	1	0	0	4	0	3	0	412
7:30 AM	1	266	6	0	6	130	5	0	2	0	1	0	3	0	4	0	424
7:45 AM	2	290	19	2	9	182	11	0	6	1	0	0	2	2	5	0	531
8:00 AM	1	260	8	0	10	134	12	0	10	0	0	0	5	1	7	0	448
8:15 AM	1	223	10	0	9	133	9	1	4	1	0	0	5	0	4	0	400
8:30 AM	0	211	5	0	16	124	8	0	4	1	0	0	4	1	5	0	379
8:45 AM	2	213	9	0	10	162	10	4	13	1	1	0	8	0	6	0	439
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	11	2856	184	3	198	1754	86	8	55	6	3	0	64	10	58	0	5296
APPROACH %'s :	0.36%	93.52%	6.02%	0.10%	9.68%	85.73%	4.20%	0.39%	85.94%	9.38%	4.69%	0.00%	48.48%	7.58%	43.94%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	5	1041	49	2	40	584	33	0	22	2	1	0	14	3	19	0	1815
PEAK HR FACTOR :	0.625	0.897	0.645	0.250	0.667	0.802	0.688	0.000	0.550	0.500	0.250	0.000	0.700	0.375	0.679	0.000	0.855
		0.876				0.813				0.625				0.692			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1.5	0.5	1	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	5	241	14	3	17	220	11	1	17	3	3	0	10	6	15	0	566
2:15 PM	3	233	10	2	9	219	7	4	19	1	1	0	17	2	14	0	541
2:30 PM	4	231	12	1	9	257	13	6	31	2	2	0	18	3	24	0	613
2:45 PM	0	216	14	1	16	251	13	6	15	2	1	0	9	1	22	0	567
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	12	921	50	7	51	947	44	17	82	8	7	0	54	12	75	0	2287
APPROACH %'s :	1.21%	93.03%	5.05%	0.71%	4.82%	89.42%	4.15%	1.61%	84.54%	8.25%	7.22%	0.00%	38.30%	8.51%	53.19%	0.00%	
PEAK HR :	02:00 PM - 03:00 PM																TOTAL
PEAK HR VOL :	12	921	50	7	51	947	44	17	82	8	7	0	54	12	75	0	2287
PEAK HR FACTOR :	0.600	0.955	0.893	0.583	0.750	0.921	0.846	0.708	0.661	0.667	0.583	0.000	0.750	0.500	0.781	0.000	0.933
		0.941				0.926				0.693				0.783			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1.5	0.5	1	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	235	14	3	12	301	9	4	29	1	4	0	32	2	13	0	660
4:15 PM	4	222	10	1	4	261	3	6	28	0	5	0	20	6	14	0	584
4:30 PM	1	254	7	5	7	307	5	10	20	7	3	0	36	1	8	0	671
4:45 PM	0	193	4	0	9	290	5	10	35	2	1	0	13	3	9	0	574
5:00 PM	1	206	4	0	6	401	4	14	60	6	3	0	22	0	8	0	735
5:15 PM	2	218	5	2	1	321	4	1	36	0	5	0	10	0	15	0	620
5:30 PM	2	207	2	1	2	250	5	3	41	2	1	0	11	1	8	0	536
5:45 PM	0	187	3	1	1	272	2	2	16	0	0	0	6	1	7	0	498
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	11	1722	49	13	42	2403	37	50	265	18	22	0	150	14	82	0	4878
APPROACH %'s :	0.61%	95.93%	2.73%	0.72%	1.66%	94.91%	1.46%	1.97%	86.89%	5.90%	7.21%	0.00%	60.98%	5.69%	33.33%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	4	871	20	7	23	1319	18	35	151	15	12	0	81	4	40	0	2600
PEAK HR FACTOR :	0.500	0.857	0.714	0.350	0.639	0.822	0.900	0.625	0.629	0.536	0.600	0.000	0.563	0.333	0.667	0.000	0.884
		0.845				0.821				0.645				0.694			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Gold Valley Dr & White Rock Rd
City: Rancho Cordova
Control: 1-Way Stop(NB)

Project ID: 21-070110-003
Date: 7/22/2021

Total

NS/EW Streets:	Gold Valley Dr				Gold Valley Dr				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
5:00 AM	0	0	0	0	0	0	0	0	0	52	4	0	0	11	0	0	67
5:15 AM	1	0	1	0	0	0	0	0	0	69	4	0	0	16	0	0	91
5:30 AM	1	0	1	1	0	0	0	0	0	109	5	0	1	27	0	0	145
5:45 AM	2	0	3	0	0	0	0	0	0	202	13	0	1	33	0	0	254
6:00 AM	10	0	3	0	0	0	0	0	0	108	3	0	0	48	0	0	172
6:15 AM	6	0	1	0	0	0	0	0	0	118	2	0	1	53	0	0	181
6:30 AM	7	0	7	0	0	0	2	0	2	118	3	0	0	58	0	0	197
6:45 AM	1	0	2	0	1	0	0	0	0	166	9	0	4	42	0	0	225
7:00 AM	4	0	2	0	0	0	0	0	0	90	1	0	0	52	0	0	149
7:15 AM	3	0	4	0	0	0	0	0	0	77	7	0	0	67	1	0	159
7:30 AM	1	0	4	0	0	0	0	0	0	80	4	0	2	59	0	0	150
7:45 AM	1	0	2	0	0	0	1	0	0	101	7	0	1	52	0	0	165
8:00 AM	4	0	4	0	0	0	0	0	0	81	8	0	1	50	0	0	148
8:15 AM	1	0	2	0	1	0	0	0	0	69	5	0	1	48	0	0	127
8:30 AM	4	0	2	0	0	0	0	0	0	71	4	0	3	41	0	0	125
8:45 AM	2	0	2	0	0	0	0	0	1	74	6	0	1	50	0	0	136
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	48	0	40	1	2	0	3	0	3	1585	85	0	16	707	1	0	2491
APPROACH %'s :	53.93%	0.00%	44.94%	1.12%	40.00%	0.00%	60.00%	0.00%	0.18%	94.74%	5.08%	0.00%	2.21%	97.65%	0.14%	0.00%	
PEAK HR :	05:45 AM - 06:45 AM																TOTAL
PEAK HR VOL :	25	0	14	0	0	0	2	0	2	546	21	0	2	192	0	0	804
PEAK HR FACTOR :	0.625	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.250	0.676	0.404	0.000	0.500	0.828	0.000	0.000	0.791
	0.696				0.250				0.662				0.836				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	13	0	2	1	0	0	0	0	0	67	5	2	10	78	3	0	181
2:15 PM	10	0	9	0	1	0	1	0	2	79	8	1	5	76	0	0	192
2:30 PM	14	0	8	0	0	0	0	0	0	65	8	0	5	144	0	0	244
2:45 PM	12	0	5	0	0	0	0	0	0	63	9	0	2	100	0	0	191
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	49	0	24	1	1	0	1	0	2	274	30	3	22	398	3	0	808
APPROACH %'s :	66.22%	0.00%	32.43%	1.35%	50.00%	0.00%	50.00%	0.00%	0.65%	88.67%	9.71%	0.97%	5.20%	94.09%	0.71%	0.00%	
PEAK HR :	02:00 PM - 03:00 PM																TOTAL
PEAK HR VOL :	49	0	24	1	1	0	1	0	2	274	30	3	22	398	3	0	808
PEAK HR FACTOR :	0.875	0.000	0.667	0.250	0.250	0.000	0.250	0.000	0.250	0.867	0.833	0.375	0.550	0.691	0.250	0.000	0.828
	0.841				0.250				0.858				0.710				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	14	0	2	0	1	0	0	0	0	49	4	0	1	108	0	0	179
4:15 PM	8	0	3	0	0	0	2	0	1	67	1	0	3	79	0	0	164
4:30 PM	19	0	7	0	0	0	1	0	0	59	5	0	5	120	0	0	216
4:45 PM	12	0	6	0	0	0	0	0	1	39	5	0	1	84	0	0	148
5:00 PM	12	0	7	0	0	0	2	0	1	36	2	0	2	105	0	0	167
5:15 PM	16	0	7	0	0	0	0	0	0	44	4	0	3	78	0	0	152
5:30 PM	9	0	3	0	0	0	0	0	0	32	2	0	1	100	0	0	147
5:45 PM	15	0	2	0	0	0	0	0	0	34	2	0	3	41	0	0	97
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	105	0	37	0	1	0	5	0	3	360	25	0	19	715	0	0	1270
APPROACH %'s :	73.94%	0.00%	26.06%	0.00%	16.67%	0.00%	83.33%	0.00%	0.77%	92.78%	6.44%	0.00%	2.59%	97.41%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	53	0	18	0	1	0	3	0	2	214	15	0	10	391	0	0	707
PEAK HR FACTOR :	0.697	0.000	0.643	0.000	0.250	0.000	0.375	0.000	0.500	0.799	0.750	0.000	0.500	0.815	0.000	0.000	0.818
	0.683				0.500				0.837				0.802				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Fitzgerald Rd/Sunrise Park Dr & White Rock Rd
City: Rancho Cordova
Control: 4-Way Stop

Project ID: 21-070110-002
Date: 7/22/2021

Total

NS/EW Streets:	Fitzgerald Rd/Sunrise Park Dr				Fitzgerald Rd/Sunrise Park Dr				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
5:00 AM	5	1	0	0	2	1	0	0	5	18	24	0	1	7	1	0	65
5:15 AM	8	5	0	0	1	2	0	0	3	26	31	0	0	5	1	0	82
5:30 AM	8	4	1	0	4	5	1	0	7	47	42	0	1	12	2	0	134
5:45 AM	15	5	1	0	9	12	2	0	25	81	90	0	5	12	0	0	257
6:00 AM	16	7	1	0	7	1	1	0	9	52	45	0	6	27	9	0	181
6:15 AM	14	9	5	0	2	8	3	0	9	52	52	0	4	27	15	0	200
6:30 AM	29	9	0	0	4	5	2	0	7	71	43	0	4	20	9	0	203
6:45 AM	16	24	4	0	6	4	2	0	7	94	58	0	4	20	5	0	244
7:00 AM	25	16	4	0	3	3	5	0	23	35	30	0	2	12	4	0	162
7:15 AM	29	11	2	0	2	3	4	0	13	39	22	0	4	24	7	0	160
7:30 AM	21	9	4	0	1	2	4	0	6	31	28	0	3	27	4	0	140
7:45 AM	14	10	4	0	4	2	3	0	11	40	26	0	4	28	5	0	151
8:00 AM	17	7	1	0	3	6	3	0	9	29	30	0	4	20	4	0	133
8:15 AM	14	4	2	0	5	2	4	0	5	31	22	0	4	26	3	0	122
8:30 AM	22	4	2	0	3	1	3	0	3	38	22	0	5	20	4	0	127
8:45 AM	11	6	0	0	0	0	8	0	5	34	28	0	1	25	3	0	121
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	264	131	31	0	56	57	45	0	147	718	593	0	52	312	76	0	2482
APPROACH %'s :	61.97%	30.75%	7.28%	0.00%	35.44%	36.08%	28.48%	0.00%	10.08%	49.25%	40.67%	0.00%	11.82%	70.91%	17.27%	0.00%	
PEAK HR :	05:45 AM - 06:45 AM																TOTAL
PEAK HR VOL :	74	30	7	0	22	26	8	0	50	256	230	0	19	86	33	0	841
PEAK HR FACTOR :	0.638	0.833	0.350	0.000	0.611	0.542	0.667	0.000	0.500	0.790	0.639	0.000	0.792	0.796	0.550	0.000	0.818
	0.730				0.609				0.684				0.750				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	34	11	7	0	5	6	7	0	3	38	27	0	6	50	7	0	201
2:15 PM	29	5	5	0	1	3	5	0	9	40	36	0	2	42	6	0	183
2:30 PM	51	9	10	0	2	7	23	0	5	35	33	0	5	68	14	0	262
2:45 PM	38	11	6	0	7	6	12	0	7	35	23	0	3	50	8	0	206
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	152	36	28	0	15	22	47	0	24	148	119	0	16	210	35	0	852
APPROACH %'s :	70.37%	16.67%	12.96%	0.00%	17.86%	26.19%	55.95%	0.00%	8.25%	50.86%	40.89%	0.00%	6.13%	80.46%	13.41%	0.00%	
PEAK HR :	02:00 PM - 03:00 PM																TOTAL
PEAK HR VOL :	152	36	28	0	15	22	47	0	24	148	119	0	16	210	35	0	852
PEAK HR FACTOR :	0.745	0.818	0.700	0.000	0.536	0.786	0.511	0.000	0.667	0.925	0.826	0.000	0.667	0.772	0.625	0.000	0.813
	0.771				0.656				0.856				0.750				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	49	11	6	0	4	13	10	0	1	27	19	0	6	47	10	0	203
4:15 PM	36	6	8	1	5	11	9	0	0	31	33	0	1	31	7	0	179
4:30 PM	50	9	4	0	4	6	8	0	2	41	20	0	5	34	3	0	186
4:45 PM	24	7	5	0	3	10	6	0	0	25	15	0	2	36	3	0	136
5:00 PM	35	20	3	0	2	6	5	0	1	30	13	0	2	45	9	0	171
5:15 PM	32	6	7	0	2	0	5	0	2	30	14	0	1	36	7	0	142
5:30 PM	24	5	7	0	3	0	4	0	1	22	14	0	1	61	5	0	147
5:45 PM	17	7	2	0	4	1	3	0	1	22	13	0	1	22	1	0	94
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	267	71	42	1	27	47	50	0	8	228	141	0	19	312	45	0	1258
APPROACH %'s :	70.08%	18.64%	11.02%	0.26%	21.77%	37.90%	40.32%	0.00%	2.12%	60.48%	37.40%	0.00%	5.05%	82.98%	11.97%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	159	33	23	1	16	40	33	0	3	124	87	0	14	148	23	0	704
PEAK HR FACTOR :	0.795	0.750	0.719	0.250	0.800	0.769	0.825	0.000	0.375	0.756	0.659	0.000	0.583	0.787	0.575	0.000	0.867
	0.818				0.824				0.836				0.734				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Fitzgerald Rd & Gold Dredge Way
City: Rancho Cordova
Control: 1-Way Stop(WB)

Project ID: 21-070110-006
Date: 7/22/2021

Total

NS/EW Streets:	Fitzgerald Rd				Fitzgerald Rd				Gold Dredge Way				Gold Dredge Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
5:00 AM	0	4	6	0	1	3	0	0	0	0	0	0	0	0	2	0	16
5:15 AM	0	8	6	0	1	3	0	0	0	0	0	0	0	0	0	0	18
5:30 AM	0	12	11	0	7	2	0	0	0	0	0	0	0	0	0	0	32
5:45 AM	0	24	10	0	3	3	0	0	0	0	0	0	1	0	2	0	43
6:00 AM	0	12	7	0	2	3	0	0	0	0	0	0	1	0	4	0	29
6:15 AM	0	18	6	1	4	3	0	1	0	0	0	0	0	0	3	0	36
6:30 AM	0	13	7	0	3	13	0	0	0	0	0	0	0	0	1	0	37
6:45 AM	0	16	3	0	2	9	0	0	0	0	0	0	1	0	6	0	37
7:00 AM	0	25	9	0	2	4	0	0	0	0	0	0	1	0	3	0	44
7:15 AM	0	19	6	0	1	3	0	0	0	0	0	0	2	0	3	0	34
7:30 AM	0	9	4	0	3	5	0	0	0	0	0	0	0	0	6	0	27
7:45 AM	0	19	6	0	3	3	0	0	0	0	0	0	3	0	4	0	38
8:00 AM	0	11	5	0	2	8	0	0	0	0	0	0	1	0	5	0	32
8:15 AM	0	10	2	1	2	6	0	0	0	0	0	0	0	0	3	0	24
8:30 AM	0	10	6	0	0	2	0	0	0	0	0	0	2	0	5	0	25
8:45 AM	0	10	6	0	1	8	0	0	0	0	0	0	1	0	2	0	28
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	220	100	2	37	78	0	1	0	0	0	0	13	0	49	0	500
APPROACH %'s :	0.00%	68.32%	31.06%	0.62%	31.90%	67.24%	0.00%	0.86%					20.97%	0.00%	79.03%	0.00%	
PEAK HR :	06:15 AM - 07:15 AM																TOTAL
PEAK HR VOL :	0	72	25	1	11	29	0	1	0	0	0	0	2	0	13	0	154
PEAK HR FACTOR :	0.000	0.720	0.694	0.250	0.688	0.558	0.000	0.250	0.000	0.000	0.000	0.000	0.500	0.000	0.542	0.000	0.875
		0.721				0.641								0.536			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	15	8	1	5	18	0	0	0	0	0	0	2	0	5	0	54
2:15 PM	0	12	2	0	2	20	0	0	0	0	0	0	9	0	3	0	48
2:30 PM	0	15	1	0	2	23	0	0	0	0	0	0	14	0	3	0	58
2:45 PM	0	19	7	0	4	19	0	1	0	0	0	0	3	0	2	0	55
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	61	18	1	13	80	0	1	0	0	0	0	28	0	13	0	215
APPROACH %'s :	0.00%	76.25%	22.50%	1.25%	13.83%	85.11%	0.00%	1.06%					68.29%	0.00%	31.71%	0.00%	
PEAK HR :	02:00 PM - 03:00 PM																TOTAL
PEAK HR VOL :	0	61	18	1	13	80	0	1	0	0	0	0	28	0	13	0	215
PEAK HR FACTOR :	0.000	0.803	0.563	0.250	0.650	0.870	0.000	0.250	0.000	0.000	0.000	0.000	0.500	0.000	0.650	0.000	0.927
		0.769				0.940								0.603			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	13	6	0	1	27	0	0	0	0	0	0	4	0	2	0	53
4:15 PM	0	9	3	0	5	25	0	0	0	0	0	0	4	0	1	0	47
4:30 PM	0	16	5	0	0	35	0	0	0	0	0	0	3	0	2	0	61
4:45 PM	0	5	4	0	2	12	0	0	0	0	0	0	5	0	3	0	31
5:00 PM	0	11	2	1	2	24	0	1	0	0	0	0	3	0	4	0	48
5:15 PM	0	4	1	0	1	13	0	0	0	0	0	0	6	0	3	0	28
5:30 PM	0	7	0	0	2	11	0	0	0	0	0	0	2	0	1	0	23
5:45 PM	0	3	0	0	0	8	0	0	0	0	0	0	3	0	1	0	15
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	68	21	1	13	155	0	1	0	0	0	0	30	0	17	0	306
APPROACH %'s :	0.00%	75.56%	23.33%	1.11%	7.69%	91.72%	0.00%	0.59%					63.83%	0.00%	36.17%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	43	18	0	8	99	0	0	0	0	0	0	16	0	8	0	192
PEAK HR FACTOR :	0.000	0.672	0.750	0.000	0.400	0.707	0.000	0.000	0.000	0.000	0.000	0.000	0.800	0.000	0.667	0.000	0.787
		0.726				0.764								0.750			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Luyung Dr & Gold Dredge Way
City: Rancho Cordova
Control: 2-Way Stop(EB/WB)

Project ID: 21-070110-005
Date: 7/22/2021

Total

NS/EW Streets:	Luyung Dr				Luyung Dr				Gold Dredge Way				Gold Dredge Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
5:00 AM	1	2	0	0	1	1	3	0	2	0	5	0	0	0	2	0	17
5:15 AM	0	5	0	0	0	6	3	0	4	0	6	0	0	0	0	0	24
5:30 AM	1	11	0	0	0	3	2	0	5	2	11	0	0	0	0	0	35
5:45 AM	3	4	2	0	0	10	6	0	4	0	10	0	0	0	0	0	39
6:00 AM	2	13	0	0	0	5	5	0	7	1	7	0	0	0	0	0	40
6:15 AM	2	9	0	0	0	9	3	0	2	0	9	0	0	0	0	0	34
6:30 AM	0	9	1	0	2	5	6	0	4	1	8	0	0	0	2	0	38
6:45 AM	2	12	0	0	2	4	7	0	2	2	2	0	0	0	0	0	33
7:00 AM	2	8	0	0	1	5	3	0	4	3	4	0	0	0	0	0	30
7:15 AM	2	4	1	0	0	3	5	0	5	1	4	0	0	1	0	0	26
7:30 AM	1	6	1	0	2	5	5	0	1	2	2	0	0	1	0	0	26
7:45 AM	2	5	1	0	3	14	4	0	2	1	7	0	0	1	0	0	40
8:00 AM	5	6	0	0	2	8	4	0	1	1	5	0	0	2	0	0	34
8:15 AM	4	2	0	0	2	1	4	0	2	0	3	0	0	0	0	0	18
8:30 AM	5	7	0	0	1	6	3	0	2	4	3	0	0	2	0	0	33
8:45 AM	2	5	2	0	1	6	1	0	2	1	6	0	0	1	3	0	30
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	34	108	8	0	17	91	64	0	49	19	92	0	0	8	7	0	497
APPROACH %'s :	22.67%	72.00%	5.33%	0.00%	9.88%	52.91%	37.21%	0.00%	30.63%	11.88%	57.50%	0.00%	0.00%	53.33%	46.67%	0.00%	
PEAK HR :	05:45 AM - 06:45 AM																TOTAL
PEAK HR VOL :	7	35	3	0	2	29	20	0	17	2	34	0	0	0	2	0	151
PEAK HR FACTOR :	0.583	0.673	0.375	0.000	0.250	0.725	0.833	0.000	0.607	0.500	0.850	0.000	0.000	0.000	0.250	0.000	0.944
	0.750				0.797				0.883				0.250				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	4	8	0	0	0	16	1	1	0	2	9	1	1	3	1	0	47
2:15 PM	5	15	0	0	1	13	3	0	0	2	1	0	1	1	0	0	42
2:30 PM	16	14	0	0	0	15	3	0	3	1	2	0	3	1	2	0	60
2:45 PM	2	16	1	0	0	18	1	0	1	2	7	0	0	3	0	0	51
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	27	53	1	0	1	62	8	1	4	7	19	1	5	8	3	0	200
APPROACH %'s :	33.33%	65.43%	1.23%	0.00%	1.39%	86.11%	11.11%	1.39%	12.90%	22.58%	61.29%	3.23%	31.25%	50.00%	18.75%	0.00%	
PEAK HR :	02:00 PM - 03:00 PM																TOTAL
PEAK HR VOL :	27	53	1	0	1	62	8	1	4	7	19	1	5	8	3	0	200
PEAK HR FACTOR :	0.422	0.828	0.250	0.000	0.250	0.861	0.667	0.250	0.333	0.875	0.528	0.250	0.417	0.667	0.375	0.000	0.833
	0.675				0.947				0.646				0.667				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	9	0	0	1	9	2	0	1	2	2	0	1	2	1	0	33
4:15 PM	4	5	0	0	0	6	1	0	2	0	7	1	0	2	1	0	29
4:30 PM	0	13	1	0	0	15	1	0	1	0	8	0	0	1	0	0	40
4:45 PM	5	14	0	0	2	10	3	0	2	1	5	0	0	2	4	0	48
5:00 PM	5	18	0	0	1	12	0	0	5	0	2	0	0	1	1	0	45
5:15 PM	2	7	0	0	0	8	2	0	3	0	3	0	3	5	2	0	35
5:30 PM	3	9	1	0	0	11	1	0	1	0	2	0	0	0	1	0	29
5:45 PM	3	6	0	0	0	5	0	0	0	0	2	0	0	3	0	0	19
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	25	81	2	0	4	76	10	0	15	3	31	1	4	16	10	0	278
APPROACH %'s :	23.15%	75.00%	1.85%	0.00%	4.44%	84.44%	11.11%	0.00%	30.00%	6.00%	62.00%	2.00%	13.33%	53.33%	33.33%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	12	52	1	0	3	45	6	0	11	1	18	0	3	9	7	0	168
PEAK HR FACTOR :	0.600	0.722	0.250	0.000	0.375	0.750	0.500	0.000	0.550	0.250	0.563	0.000	0.250	0.450	0.438	0.000	0.875
	0.707				0.844				0.833				0.475				

January 4, 2022, Turning Movement Count

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & Mechanical Dr
City: Rancho Cordova
Control: Signalized

Project ID: 21-070221-001
Date: 1/4/2022

Data - Totals

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				Mechanical Dr				Mechanical Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	1	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	1	101	8	0	3	74	4	0	2	0	1	0	1	0	1	0	196
6:15 AM	5	155	20	0	1	95	1	0	7	0	0	0	1	0	2	0	287
6:30 AM	3	183	13	0	0	104	5	1	10	0	0	0	2	0	1	0	322
6:45 AM	4	199	10	0	2	134	7	0	8	0	0	0	7	0	0	0	371
7:00 AM	1	186	4	0	1	109	7	4	25	0	0	0	2	0	0	0	339
7:15 AM	2	281	9	0	0	121	11	4	13	0	1	0	4	0	0	0	446
7:30 AM	0	266	10	0	1	134	8	1	5	0	0	0	3	0	1	0	429
7:45 AM	1	299	9	0	1	127	19	6	6	0	0	0	6	0	1	0	475
8:00 AM	5	275	15	1	3	153	11	3	8	0	0	0	3	0	2	0	479
8:15 AM	3	260	12	0	0	148	9	5	11	1	0	0	2	0	1	0	452
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	25	2205	110	1	12	1199	82	24	95	1	2	0	31	0	9	0	3796
APPROACH %'s :	1.07%	94.19%	4.70%	0.04%	0.91%	91.04%	6.23%	1.82%	96.94%	1.02%	2.04%	0.00%	77.50%	0.00%	22.50%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	9	1100	46	1	5	562	47	15	30	1	0	0	14	0	5	0	1835
PEAK HR FACTOR :	0.450	0.920	0.767	0.250	0.417	0.918	0.618	0.625	0.682	0.250	0.000	0.000	0.583	0.000	0.625	0.000	0.958
	0.935				0.925				0.646				0.679				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	1	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	169	1	0	1	354	4	5	34	0	6	0	14	0	0	0	588
4:45 PM	6	171	1	0	0	346	4	9	45	1	3	0	7	0	0	0	593
5:00 PM	1	167	0	0	1	365	6	7	37	0	7	0	18	0	5	0	614
5:15 PM	1	166	0	0	0	335	3	5	26	1	17	0	3	0	2	0	559
5:30 PM	2	191	3	0	0	305	3	7	30	0	8	0	11	0	0	0	560
5:45 PM	3	162	0	0	0	259	4	5	9	0	1	0	6	0	0	0	449
6:00 PM	1	148	0	0	0	232	4	6	24	0	5	0	7	0	3	0	430
6:15 PM	0	118	0	0	0	208	4	8	11	0	3	0	4	0	0	0	356
6:30 PM	1	116	1	0	0	170	1	5	10	0	1	0	1	0	0	0	306
6:45 PM	0	95	1	0	1	153	1	3	10	0	2	0	4	0	0	0	270
7:00 PM	0	87	0	0	1	154	1	5	9	0	0	0	3	0	1	0	261
7:15 PM	0	73	1	0	2	132	1	1	3	0	1	0	1	0	0	0	215
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	15	1663	8	0	6	3013	36	66	248	2	54	0	79	0	11	0	5201
APPROACH %'s :	0.89%	98.64%	0.47%	0.00%	0.19%	96.54%	1.15%	2.11%	81.58%	0.66%	17.76%	0.00%	87.78%	0.00%	12.22%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	8	673	2	0	2	1400	17	26	142	2	33	0	42	0	7	0	2354
PEAK HR FACTOR :	0.333	0.984	0.500	0.000	0.500	0.959	0.708	0.722	0.789	0.500	0.485	0.000	0.583	0.000	0.350	0.000	0.958
	0.959				0.953				0.903				0.533				

March 15, 2016, Turning Movement Counts

ALL TRAFFIC DATA

City of Rancho Cordova
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 16-7165-035 Sunrise Boulevard & White Rock Road
Date : 3/15/2016

Unshifted Count = All Vehicles & Uturns

	Sunrise Boulevard Southbound					White Rock Road Westbound					Sunrise Boulevard Northbound					White Rock Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	56	191	70	9	326	33	61	25	1	120	85	196	17	9	307	17	45	14	8	84	837	27
7:15	40	232	86	5	363	30	86	36	1	153	70	295	23	14	402	21	55	18	9	103	1021	29
7:30	47	219	79	3	348	36	112	34	0	182	78	272	20	18	388	35	43	12	13	103	1021	34
7:45	69	282	101	2	454	54	99	36	0	189	90	290	21	20	421	24	32	20	14	90	1154	36
Total	212	924	336	19	1491	153	358	131	2	644	323	1053	81	61	1518	97	175	64	44	380	4033	126
8:00	62	220	70	7	359	58	98	37	2	195	79	305	18	16	418	30	49	28	11	118	1090	36
8:15	52	227	85	5	369	48	83	34	0	165	92	239	14	11	356	25	36	21	9	91	981	25
8:30	35	220	69	4	328	28	75	24	1	128	58	244	17	13	332	49	50	25	12	136	924	30
8:45	63	274	66	7	410	33	55	40	1	129	81	275	21	10	387	36	37	23	5	101	1027	23
Total	212	941	290	23	1466	167	311	135	4	617	310	1063	70	50	1493	140	172	97	37	446	4022	114
16:00	56	305	25	10	396	51	94	68	1	214	43	269	33	11	356	87	108	48	5	248	1214	27
16:15	47	301	26	13	387	53	66	65	0	184	40	230	32	12	314	83	118	60	10	271	1156	35
16:30	51	317	51	12	431	54	77	66	1	198	50	262	52	14	378	95	143	94	9	341	1348	36
16:45	51	317	23	8	399	63	61	46	3	173	55	255	38	16	364	81	108	46	6	241	1177	33
Total	205	1240	125	43	1613	221	298	245	5	769	188	1016	155	53	1412	346	477	248	30	1101	4895	131
17:00	60	284	30	7	381	47	84	51	0	182	82	255	58	11	406	71	184	67	11	333	1302	29
17:15	63	353	51	10	477	47	50	32	5	134	53	237	51	10	351	74	140	50	8	272	1234	33
17:30	53	295	24	6	378	47	78	44	0	169	52	211	38	18	319	62	144	31	4	241	1107	28
17:45	49	264	26	8	347	45	40	37	2	124	49	193	22	8	272	67	81	31	6	185	928	24
Total	225	1196	131	31	1583	186	252	164	7	609	236	896	169	47	1348	274	549	179	29	1031	4571	114
Grand Total	854	4301	882	116	6153	727	1219	675	18	2639	1057	4028	475	211	5771	857	1373	588	140	2958	17521	485
Apprch %	13.9%	69.9%	14.3%	1.9%		27.5%	46.2%	25.6%	0.7%		18.3%	69.8%	8.2%	3.7%		29.0%	46.4%	19.9%	4.7%			
Total %	4.9%	24.5%	5.0%	0.7%	35.1%	4.1%	7.0%	3.9%	0.1%	15.1%	6.0%	23.0%	2.7%	1.2%	32.9%	4.9%	7.8%	3.4%	0.8%	16.9%	100.0%	

AM PEAK HOUR	Sunrise Boulevard Southbound					White Rock Road Westbound					Sunrise Boulevard Northbound					White Rock Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
7:15	40	232	86	5	363	30	86	36	1	153	70	295	23	14	402	21	55	18	9	103	1021
7:30	47	219	79	3	348	36	112	34	0	182	78	272	20	18	388	35	43	12	13	103	1021
7:45	69	282	101	2	454	54	99	36	0	189	90	290	21	20	421	24	32	20	14	90	1154
8:00	62	220	70	7	359	58	98	37	2	195	79	305	18	16	418	30	49	28	11	118	1090
Total Volume	218	953	336	17	1524	178	395	143	3	719	317	1162	82	68	1629	110	179	78	47	414	4286
% App Total	14.3%	62.5%	22.0%	1.1%		24.8%	54.9%	19.9%	0.4%		19.5%	71.3%	5.0%	4.2%		26.6%	43.2%	18.8%	11.4%		
PHF	.790	.845	.832	.607	.839	.767	.882	.966	.375	.922	.881	.952	.891	.850	.967	.786	.814	.696	.839	.877	.929

PM PEAK HOUR	Sunrise Boulevard Southbound					White Rock Road Westbound					Sunrise Boulevard Northbound					White Rock Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	51	317	51	12	431	54	77	66	1	198	50	262	52	14	378	95	143	94	9	341	1348
16:45	51	317	23	8	399	63	61	46	3	173	55	255	38	16	364	81	108	46	6	241	1177
17:00	60	284	30	7	381	47	84	51	0	182	82	255	58	11	406	71	184	67	11	333	1302
17:15	63	353	51	10	477	47	50	32	5	134	53	237	51	10	351	74	140	50	8	272	1234
Total Volume	225	1271	155	37	1688	211	272	195	9	687	240	1009	199	51	1499	321	575	257	34	1187	5061
% App Total	13.3%	75.3%	9.2%	2.2%		30.7%	39.6%	28.4%	1.3%		16.0%	67.3%	13.3%	3.4%		27.0%	48.4%	21.7%	2.9%		
PHF	.893	.900	.760	.771	.885	.837	.810	.739	.450	.867	.732	.963	.858	.797	.923	.845	.781	.684	.773	.870	.939

ALL TRAFFIC DATA

City of Rancho Cordova
(916) 771-8700
orders@atdtraffic.com

All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

File Name : 16-7165-036 Sunrise Boulevard & International Drive/Monier Circle
Date : 3/15/2016

Unshifted Count = All Vehicles & Uturns

	Sunrise Boulevard Southbound					International Drive/Monier Circle Westbound					Sunrise Boulevard Northbound					International Drive/Monier Circle Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	12	120	73	0	205	2	0	3	0	5	53	290	0	0	343	25	5	24	0	54	607	0
7:15	10	155	91	0	256	1	2	8	0	11	78	349	5	0	432	23	9	17	0	49	748	0
7:30	9	147	102	0	258	1	4	4	0	9	63	346	3	1	413	32	4	35	0	71	751	1
7:45	15	192	119	0	326	1	0	7	0	8	100	359	3	2	464	43	8	58	0	109	907	2
Total	46	614	385	0	1045	5	6	22	0	33	294	1344	11	3	1652	123	26	134	0	283	3013	3
8:00	15	192	78	0	285	0	0	4	0	4	85	374	5	0	464	41	8	56	0	105	858	0
8:15	11	200	87	0	298	5	1	3	0	9	74	313	1	0	388	22	5	47	0	74	769	0
8:30	9	187	70	0	266	3	1	4	0	8	53	288	3	0	344	23	4	53	0	80	698	0
8:45	16	230	69	1	316	4	2	5	0	11	58	335	2	1	396	27	3	44	0	74	797	2
Total	51	809	304	1	1165	12	4	16	0	32	270	1310	11	1	1592	113	20	200	0	333	3122	2
16:00	8	347	36	1	392	2	12	13	0	27	50	242	3	2	297	62	2	89	0	153	869	3
16:15	5	377	51	0	433	12	9	15	0	36	34	221	3	6	264	75	6	74	0	155	888	6
16:30	6	375	40	2	423	5	10	23	0	38	51	205	0	1	257	122	2	95	0	219	937	3
16:45	5	384	45	0	434	8	4	15	0	27	43	229	2	3	277	78	4	93	0	175	913	3
Total	24	1483	172	3	1682	27	35	66	0	128	178	897	8	12	1095	337	14	351	0	702	3607	15
17:00	3	349	47	3	402	8	6	11	0	25	75	254	1	4	334	143	0	130	0	273	1034	7
17:15	2	386	53	0	441	3	5	9	0	17	52	227	1	2	282	92	5	90	0	187	927	2
17:30	3	338	48	1	390	5	4	7	0	16	43	208	2	5	258	69	3	58	0	130	794	6
17:45	3	321	39	1	364	3	3	6	0	12	33	216	3	2	254	61	0	73	0	134	764	3
Total	11	1394	187	5	1597	19	18	33	0	70	203	905	7	13	1128	365	8	351	0	724	3519	18
Grand Total	132	4300	1048	9	5489	63	63	137	0	263	945	4456	37	29	5467	938	68	1036	0	2042	13261	38
Apprch %	2.4%	78.3%	19.1%	0.2%		24.0%	24.0%	52.1%	0.0%		17.3%	81.5%	0.7%	0.5%		45.9%	3.3%	50.7%	0.0%			
Total %	1.0%	32.4%	7.9%	0.1%	41.4%	0.5%	0.5%	1.0%	0.0%	2.0%	7.1%	33.6%	0.3%	0.2%	41.2%	7.1%	0.5%	7.8%	0.0%	15.4%	100.0%	

AM PEAK HOUR	Sunrise Boulevard Southbound					International Drive/Monier Circle Westbound					Sunrise Boulevard Northbound					International Drive/Monier Circle Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	9	147	102	0	258	1	4	4	0	9	63	346	3	1	413	32	4	35	0	71	751
7:45	15	192	119	0	326	1	0	7	0	8	100	359	3	2	464	43	8	58	0	109	907
8:00	15	192	78	0	285	0	0	4	0	4	85	374	5	0	464	41	8	56	0	105	858
8:15	11	200	87	0	298	5	1	3	0	9	74	313	1	0	388	22	5	47	0	74	769
Total Volume	50	731	386	0	1167	7	5	18	0	30	322	1392	12	3	1729	138	25	196	0	359	3285
% App Total	4.3%	62.6%	33.1%	0.0%		23.3%	16.7%	60.0%	0.0%		18.6%	80.5%	0.7%	0.2%		38.4%	7.0%	54.6%	0.0%		
PHF	.833	.914	.811	.000	.895	.350	.313	.643	.000	.833	.805	.930	.600	.375	.932	.802	.781	.845	.000	.823	.905

PM PEAK HOUR	Sunrise Boulevard Southbound					International Drive/Monier Circle Westbound					Sunrise Boulevard Northbound					International Drive/Monier Circle Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	6	375	40	2	423	5	10	23	0	38	51	205	0	1	257	122	2	95	0	219	937
16:45	5	384	45	0	434	8	4	15	0	27	43	229	2	3	277	78	4	93	0	175	913
17:00	3	349	47	3	402	8	6	11	0	25	75	254	1	4	334	143	0	130	0	273	1034
17:15	2	386	53	0	441	3	5	9	0	17	52	227	1	2	282	92	5	90	0	187	927
Total Volume	16	1494	185	5	1700	24	25	58	0	107	221	915	4	10	1150	435	11	408	0	854	3811
% App Total	0.9%	87.9%	10.9%	0.3%		22.4%	23.4%	54.2%	0.0%		19.2%	79.6%	0.3%	0.9%		50.9%	1.3%	47.8%	0.0%		
PHF	.667	.968	.873	.417	.964	.750	.625	.630	.000	.704	.737	.901	.500	.625	.861	.760	.550	.785	.000	.782	.921

Covid Adjustment

AM Peak Hour Turning Movement Counts

Intersection	TIME	INTID	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBR
Sunrise @ White Rock	715	1	121	788	71	33	196	726	95	26	95	232	56
Sunrise @ International	730	2	138	920	10	4	56	620	143	0	97	31	177
Fitzgerald @ Sunrise	715	3	5	1041	49	2	40	584	33	0	22	2	1
Sunrise @ Mechanical	730	4	9	1100	46	1	5	562	47	15	30	1	0
Gold Valley Rd @ White Rock	700	5	9	0	12	0	0	0	1	0	0	348	19
Fitzgerald @ White Rock	700	6	89	46	14	0	10	10	16	0	53	145	106
Fitzgerald @ Gold Dredge	700	7	0	72	25	0	9	15	0	0	0	0	0
Luyang @ Gold Dredge	715	8	10	21	3	0	7	30	18	0	9	5	18
White Rock Road at Rancho Cordova Parkway		9										71	

AM Peak Hour Turning Movement Counts Adjusted for Covid

Intersection	TIME	INTID	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBR
Sunrise @ White Rock		1	180	1174	106	49	292	1082	142	39	142	346	83
Sunrise @ International		2	206	1371	15	6	83	924	213	0	145	46	264
Fitzgerald @ Sunrise		3	7	1551	73	3	60	870	49	0	33	3	1
Sunrise @ Mechanical		4	13	1639	69	1	7	837	70	22	45	1	0
Gold Valley Rd @ White Rock		5	13	0	18	0	0	0	1	0	0	519	28
Fitzgerald @ White Rock		6	133	69	21	0	15	15	24	0	79	216	158
Fitzgerald @ Gold Dredge		7	0	107	37	0	13	22	0	0	0	0	0
Luyang @ Gold Dredge		8	15	31	4	0	10	45	27	0	13	7	27
White Rock Road at Rancho Cordova Parkway		9										106	

PM Peak Hour Turning Movement Counts

Intersection	TIME	INTID	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBR
Sunrise @ White Rock	1630	1	169	869	92	59	228	1156	145	20	118	210	115
Sunrise @ International	1630	2	214	928	4	8	29	1236	213	4	181	15	154
Fitzgerald @ Sunrise	1630	3	4	871	20	7	23	1319	18	35	151	15	12
Sunrise @ Mechanical	1630	4	8	673	2	0	2	1400	17	26	142	2	33
Gold Valley Rd @ White Rock	1600	5	53	0	18	0	1	0	3	0	2	214	15
Fitzgerald @ White Rock	1600	6	159	33	23	1	16	40	33	0	3	124	87
Fitzgerald @ Gold Dredge	1600	7	0	43	18	0	8	99	0	0	0	0	0
Luyang @ Gold Dredge	1630	8	12	52	1	0	3	45	6	0	11	1	18
White Rock Road at Rancho Cordova Parkway		9										151	

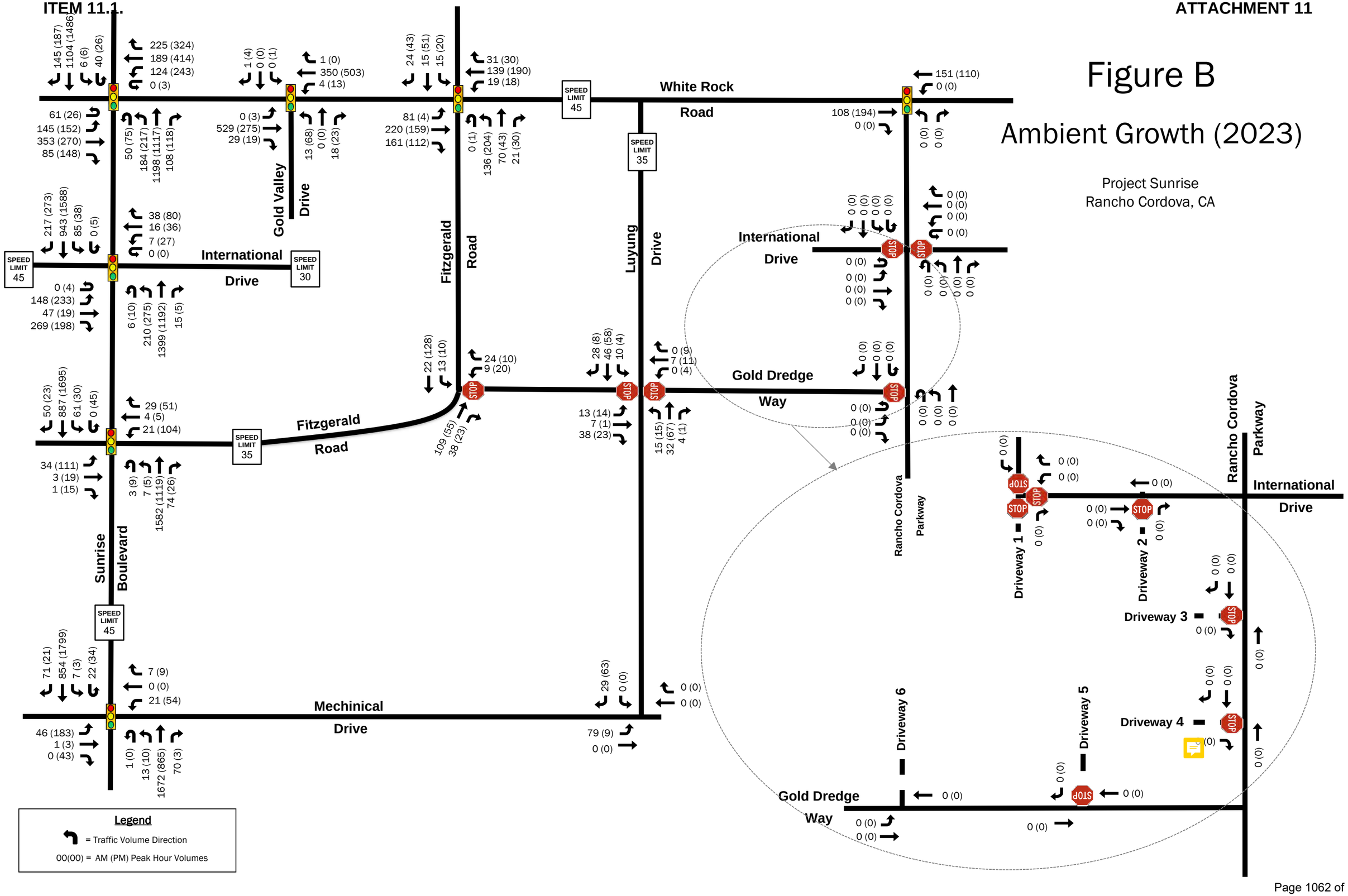
PM Peak Hour Turning Movement Counts Adjusted for Covid

Intersection	TIME	INTID	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBR
Sunrise @ White Rock		1	213	1095	116	74	287	1457	183	25	149	265	145
Sunrise @ International		2	270	1169	5	10	37	1557	268	5	228	19	194
Fitzgerald @ Sunrise		3	5	1097	25	9	29	1662	23	44	190	19	15
Sunrise @ Mechanical		4	10	848	3	0	3	1764	21	33	179	3	42
Gold Valley Rd @ White Rock		5	67	0	23	0	1	0	4	0	3	270	19
Fitzgerald @ White Rock		6	200	42	29	1	20	50	42	0	4	156	110
Fitzgerald @ Gold Dredge		7	0	54	23	0	10	125	0	0	0	0	0
Luyang @ Gold Dredge		8	15	66	1	0	4	57	8	0	14	1	23
White Rock Road at Rancho Cordova Parkway	0	9										190	

Figure B

Ambient Growth (2023)

Project Sunrise
Rancho Cordova, CA



Appendix C – Heavy Vehicle Data

Classification Counts

Prepared by National Data & Surveying Services

CLASSIFICATION

White Rock Rd E/O Salisbury Rd

Day: Thursday
Date: 7/22/2021

City: Rancho Cordova
Project #: CA21_070111_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	2
01:00	0	1	1	0	0	0	0	1	0	0	0	0	0	3
02:00	0	7	2	0	0	3	0	1	0	0	0	0	0	13
03:00	0	15	6	3	3	8	0	0	0	0	0	0	0	35
04:00	0	24	11	6	4	15	0	2	0	0	0	0	0	62
05:00	0	47	22	3	11	21	0	1	0	0	1	0	0	106
06:00	0	100	36	5	22	29	0	3	3	0	5	0	0	203
07:00	1	89	44	4	18	15	1	0	1	0	2	0	0	175
08:00	1	63	37	3	9	13	0	0	3	0	4	0	0	133
09:00	0	52	33	0	16	8	2	3	1	0	2	0	0	117
10:00	1	43	22	4	19	9	0	1	5	0	3	0	0	107
11:00	0	65	24	0	19	7	2	3	3	0	4	0	0	127
12:00 PM	0	63	37	4	15	9	2	1	7	0	4	0	0	142
13:00	1	73	31	9	23	10	1	2	3	0	2	0	0	155
14:00	0	100	56	3	28	13	2	4	3	0	4	0	0	213
15:00	0	125	48	6	10	18	1	2	2	0	6	0	0	218
16:00	0	136	49	4	26	6	1	2	1	0	0	0	0	225
17:00	0	144	40	0	11	3	0	0	0	0	0	0	0	198
18:00	0	63	8	2	10	0	0	0	1	0	0	0	0	84
19:00	0	34	13	1	1	2	1	1	1	0	0	0	0	54
20:00	0	30	7	1	2	0	0	0	0	0	0	0	0	40
21:00	0	17	1	0	1	0	0	0	0	0	0	0	0	19
22:00	0	9	3	1	1	0	0	0	0	0	0	0	0	14
23:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6
Totals	4	1305	532	59	251	189	13	27	34		37			245
% of Totals	0%	53%	22%	2%	10%	8%	1%	1%	1%		2%			100%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Sunrise Blvd S/O Fitzgerald Rd

Day: Thursday
Date: 7/22/2021

City: Rancho Cordova
Project #: CA21_070111_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	103	27	0	2	1	0	0	0	0	0	0	0	133
01:00	0	58	12	0	1	0	0	0	0	0	0	0	0	71
02:00	0	50	13	0	1	0	0	0	1	0	0	0	0	65
03:00	0	44	18	0	2	1	0	0	0	0	0	0	0	65
04:00	0	148	44	1	6	0	0	0	0	0	0	0	0	199
05:00	0	421	145	2	20	1	0	2	1	0	0	0	0	592
06:00	1	752	257	1	34	5	0	3	3	0	0	0	0	1056
07:00	6	1186	361	4	33	3	1	3	7	0	0	0	0	1604
08:00	1	1099	341	4	45	6	1	6	5	0	0	0	0	1508
09:00	1	1002	312	4	32	10	4	6	5	0	0	0	0	1376
10:00	4	1067	314	6	33	7	1	2	8	0	0	0	0	1442
11:00	1	1218	366	8	31	4	0	7	9	0	0	0	0	1644
12:00 PM	1	1284	375	12	42	17	0	8	4	0	0	0	0	1743
13:00	2	1253	352	10	39	13	1	9	4	0	0	0	0	1683
14:00	5	1417	421	9	45	9	2	6	5	0	0	0	0	1919
15:00	2	1427	417	4	38	11	1	9	4	0	0	0	0	1913
16:00	1	1636	448	8	42	6	0	4	5	0	0	0	0	2150
17:00	2	1585	386	3	35	8	0	4	2	0	0	0	0	2025
18:00	0	1200	282	1	10	4	0	1	1	0	0	0	0	1499
19:00	0	876	214	0	16	1	0	0	0	0	0	0	0	1107
20:00	2	735	186	0	2	0	0	0	0	0	0	0	0	925
21:00	0	511	132	3	5	0	0	0	0	0	0	0	0	651
22:00	1	363	83	0	3	0	0	1	1	0	0	0	0	452
23:00	1	186	43	0	2	0	0	0	0	0	0	0	0	232
Totals	31	19621	5549	80	519	107	11	71	65					2605
% of Totals	0%	75%	21%	0%	2%	0%	0%	0%	0%					100%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Heavy Vehicles by Scenario

Heavy Vehicle Percentages by Scenario

Volumes (Counts & Trip Generation)

		Cars	Trucks	HV%
White Rock Road	AM	235	73	24%
	PM	369	54	13%
Sunrise Boulevard	AM	2,994	118	4%
	PM	4,058	117	3%
Residential	AM	320	0	0%
	PM	425	0	0%
Delivery Station	AM	0	3	100%
	PM	105	1	1%
Proposed Receiving Center	AM	108	24	18%
	PM	494	16	3%
Potential Industrial Park	AM	295	33	10%
	PM	295	33	10%

2023 No Project

		Cars	Trucks	HV%
White Rock Road	AM	555	76	12%
	PM	899	55	6%
Sunrise Boulevard	AM	3,314	121	4%
	PM	4,588	118	3%
Movements Shared between White Rock Rd & Sunrise Blvd.	AM			5%
	PM			3%
Rancho Cordova Parkway	AM	320	3	1%
	PM	530	1	0%

Use 2% for Rancho Cordova and other streets

2023 with Project + Potential Industrial

		Cars	Trucks	HV%
White Rock Road	AM	958	194	17%
	PM	1,688	172	9%
Sunrise Boulevard	AM	3,717	154	4%
	PM	5,377	151	3%
Movements Shared between White Rock Rd & Sunrise Blvd.	AM			7%
	PM			5%

HV% Summary

	Sunrise Blvd	White Rock Rd	Shared Movements	Other Roadways
2023 No Project & With Project - AM	4%	12%	5%	2%
2023 No Project & With Project - PM	3%	6%	3%	2%
2023 With Project + Industrial Park - AM	4%	17%	7%	2%
2023 With Project + Industrial Park - PM	3%	9%	5%	2%

Appendix D – Traffic Anticipated from Other Approved Developments

Residential
Trip Generation

Single-Family Detached Housing (210)

Based upon methodology from ITE's Trip Generation, 10th Edition (2017)

Project Land Use	Project Density	Project Trips			Variable	Equation Used[1]	In/Out Distribution	
		Total	Inbound	Outbound				
Single-Family Detached Housing	444 DU				Dwelling Units			
Daily		**4,098**	2,049	2,049		ln(T) = 0.92ln(X)+2.71	50%	50%
AM Peak Hour		**320**	80	240		T = 0.71(X)+4.80	25%	75%
PM Peak Hour		**425**	268	157		ln(T) = 0.96ln(X)+0.20	63%	37%
Reductions for Pass-By Trips								
Daily		**0**	0	0				
AM Peak Hour		**0**	0	0				
PM Peak Hour		**0**	0	0				
TOTAL PROJECT TRIPS								
Daily		**4,098**	2,049	2,049				
AM Peak Hour		**320**	80	240				
PM Peak Hour		**425**	268	157				

Note:

[1] Where: T = Trips; X = Density by Variable

Residential

Trip Distribution and Traffic Volume Figures

Figure D-1
Residential Trip Distribution

Project Sunrise
Rancho Cordova, CA

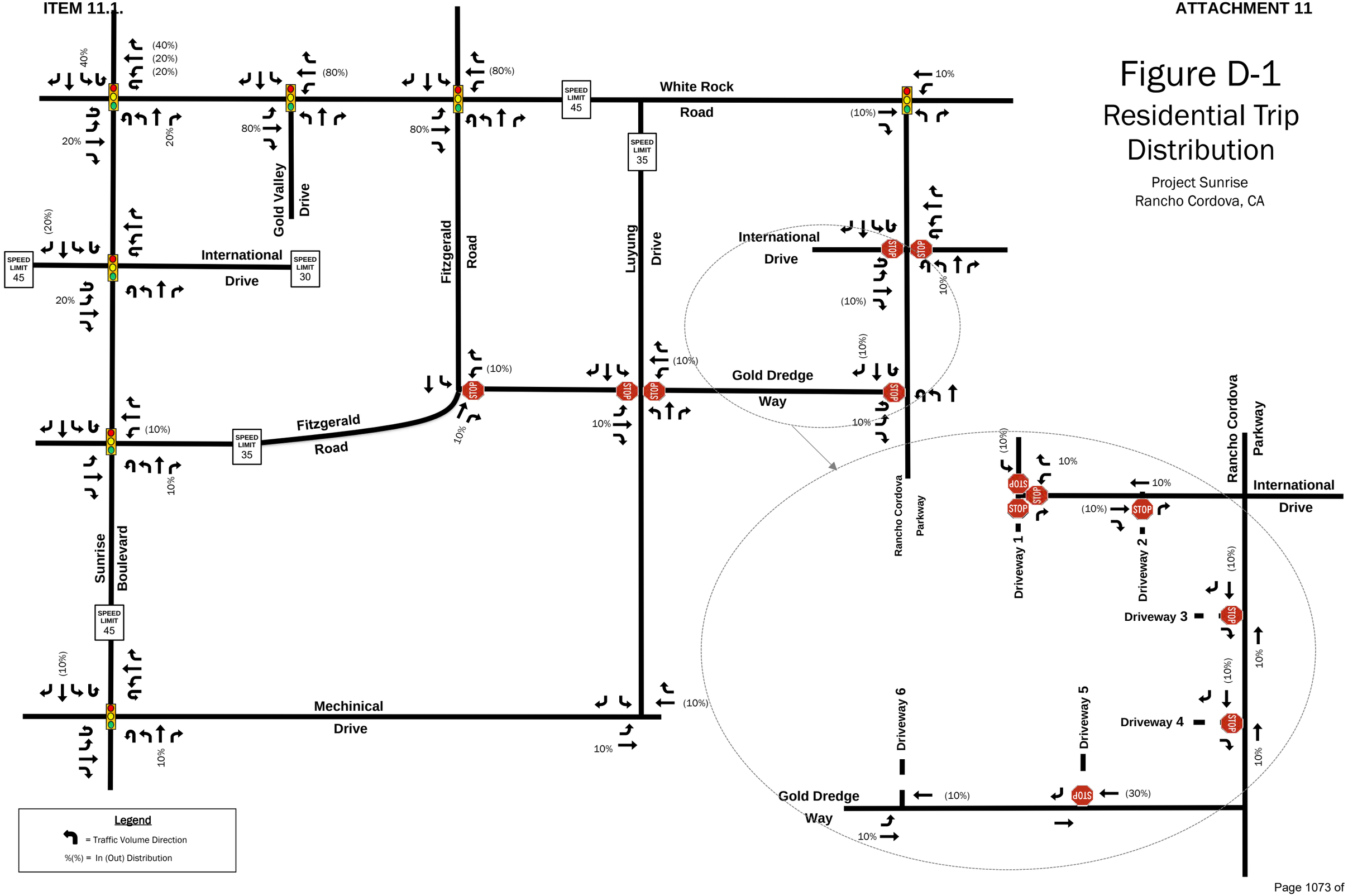
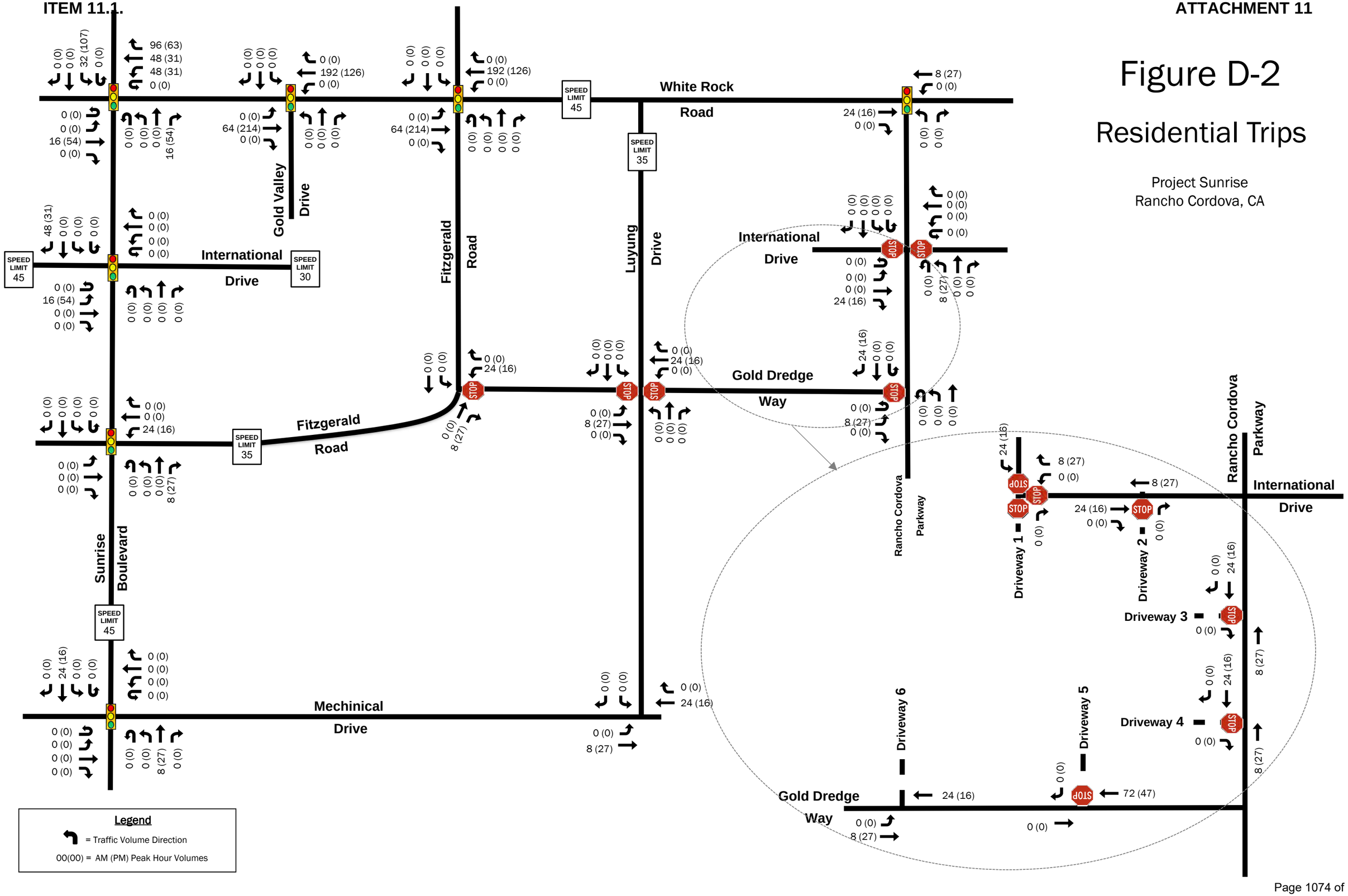


Figure D-2

Residential Trips

Project Sunrise
Rancho Cordova, CA



E-commerce Delivery Station
Trip Generation

PEER REVIEW

To:	Todd Chandler, Panattoni	Delivery Station 11427 White Rock Road Rancho Cordova, CA 95742
From:	Gina Gilgo, PE (gina.gilgo@NV5.com)	
cc:	John Karnowski, PE, PTOE, AICP (john.karnowski@NV5.com)	
Date:	March 4, 2021	

KEY FINDINGS
• The use of the site as a delivery station is consistent with the Rio del Oro Specific Plan
• 25 Line-Haul trucks will serve the site on a typical day. Trucks unload and depart within a few hours of arrival, for a total of 50 truck trips/day
• Line-Haul trucks delivering packages to the site will arrive from/return to the west on US 50
• The Site Engineering Team can identify the expected truck types and Traffic Index for pavement design

This memorandum was prepared to document our review of various documents prepared for the Rio del Oro Specific Plan in Rancho Cordova, California, and its associated planned mixed-use development. A site within the area covered in the Specific Plan is proposed for a delivery station facility. The reference documents include Draft and Final EIR-EISs completed 2006 and 2010, respectively, and the City's Draft Rio Del Oro Specific Plan completed in August 2016[1].

Trip Generation Data

The Draft EIR-EIS documents the traffic analyses for the proposed mixed-use development and includes aggregate trip generation for the Specific Plan. This information is recreated below and was based on the 2001 version of the SACMET travel demand forecasting model. Total trips do not include those between all land uses within Rio del Oro, but external trips do include all trips with origins or destinations outside of Rio del Oro.

Development		Rio del Oro Trips		
		AM Peak Hour	PM Peak Hour	Daily
Phase I	Total Trips	9,330	10,210	110,690
	External Trips	7,620	8,210	88,570
Buildout	Total Trips	19,650	20,570	229,200
	External Trips	14,750	15,190	168,470

Seven percent or 269.5 acres of the 3,827.9 acres included in the Specific Plan were proposed for development as industrial parks. The proposed delivery station would occupy Parcel 63, which includes 35.8 acres of the 269.5 total acres allocated to industrial uses.

While trip generation was not summarized by land use type or lot, it is reasonable to compare trips that would have been expected to have been generated by Lot 63 in 2006 to the trip generation characteristics of the proposed delivery station. That comparison is summarized below. Trip estimates for Lot 63 as an industrial park are based on the then-current edition of the Institute of Engineers' Trip Generation, (7th Edition, 2003). Trip characteristics for the delivery station were provided by the anticipated tenant based on similarly sized facilities in other locations. Please note the tenant operates delivery stations to avoid employee and delivery traffic during the typical peak hours of the adjacent street traffic to the extent feasible. This comparison indicates the use of Lot 63 as a delivery station is consistent with the Rio del Oro Specific Plan, in terms of traffic and transportation.

Development	Trip Source	Lot 63 Trips		
		AM Peak Hour	PM Peak Hour	Daily
Industrial Park	ITE 2003	306	318	2,259
Delivery Station	Tenant	3	106	1,516

Truck Volumes/Routes

Typically, 25 line-haul daily trucks will deliver packages to the delivery station for distribution, resulting in a total of 50 daily truck trips. These arrive and depart at a maximum of two (2) each per hour for a total hourly

[1] https://www.cityofranchocordova.org/government/planning/zoning-specific-plans-and-special-planning-areas/specific-plans/rio-del-oro-specific-plan

maximum of four (4) per hour. Most truck trips occur after 6:00 PM and before 7:00 AM, but about 25% arrive or depart between 7:00 AM and 6:00 PM. The delivery station is expected to receive these packages from another of the tenant's facilities located in Stockton, but over time may be served by other facilities. Initially and for the foreseeable future, line-haul trucks will arrive from and return to the west on US 50. They will use Exit 18 and Sunrise Boulevard to access White Rock Road. These trucks will enter Rio del Oro by turning right onto Collector A and right into the site at its north-easternmost driveway. That driveway is expected to be restricted to trucks only. Trucks will use the reverse route to return to their home facility.

Conclusions and Recommendations

Based on our review of the Rio del Oro Specific Plan documents we offer the following comments:

- Use of Lot 63 as a delivery station is consistent with the Rio del Oro Specific Plan, in terms of traffic and transportation.
- Line-haul truck traffic generated by the delivery station is typically limited to 50 trips/day. The site engineering team can use this data to evaluate the pavement design standards and the routing information to confirm the planned roadway system and site truck driveway can accommodate these trucks without encroaching on curbs or vehicles in other lanes.
- The proposed parking shown on the current site plan will accommodate all site traffic. No site traffic shall park on Rancho Cordova Parkway, International Drive or Collector Road A.

E-commerce Delivery Station
Trip Distribution and Traffic Volume Figures

Figure D - 3
Delivery Station Trip Distribution - Passenger Vehicles

Project Sunrise
Rancho Cordova, CA

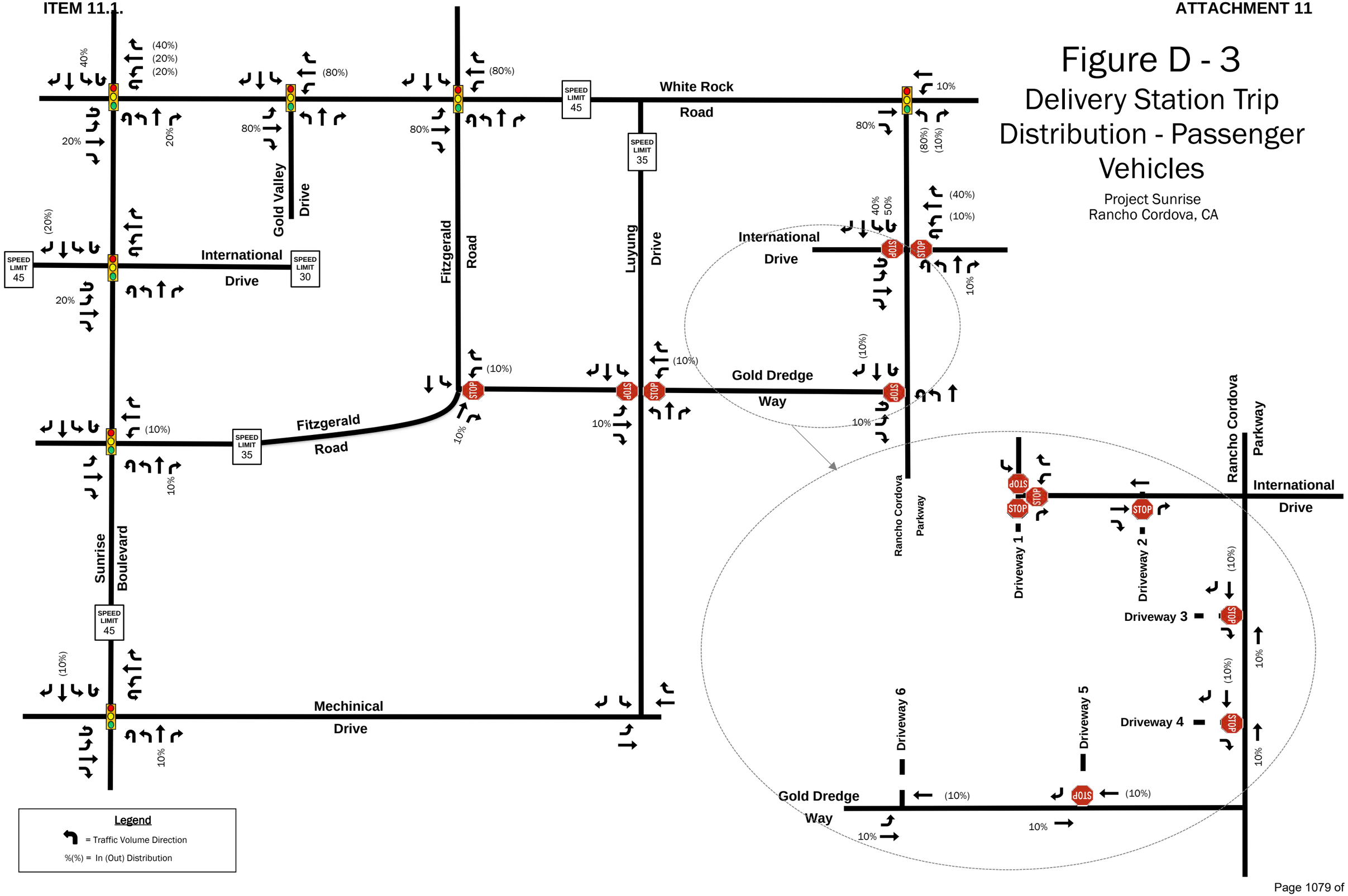


Figure D - 4

Delivery Station Passenger Vehicle Trips

Project Sunrise
Rancho Cordova, CA

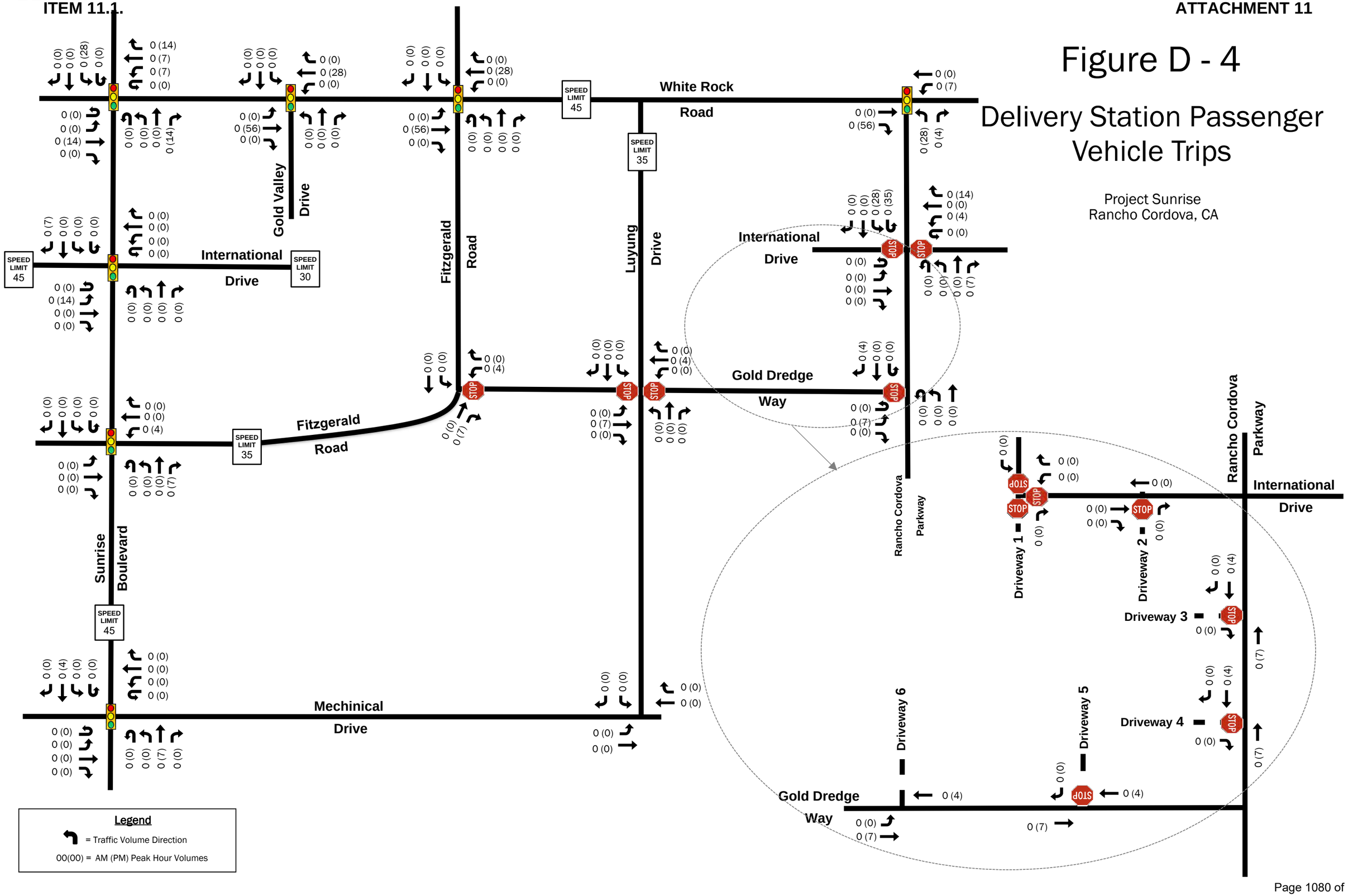


Figure D - 5

Delivery Station Trip Distribution - Trucks

Project Sunrise
Rancho Cordova, CA

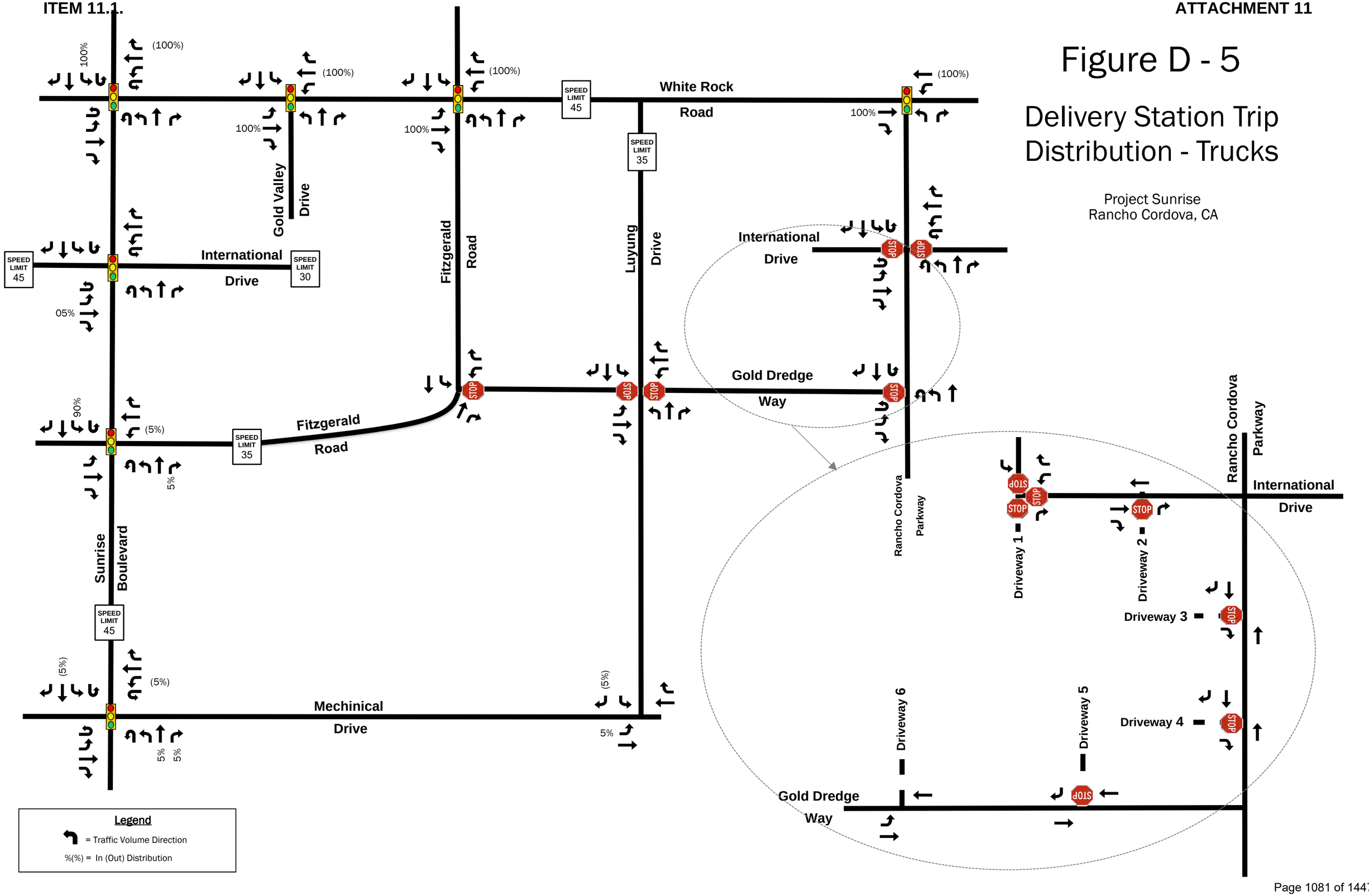
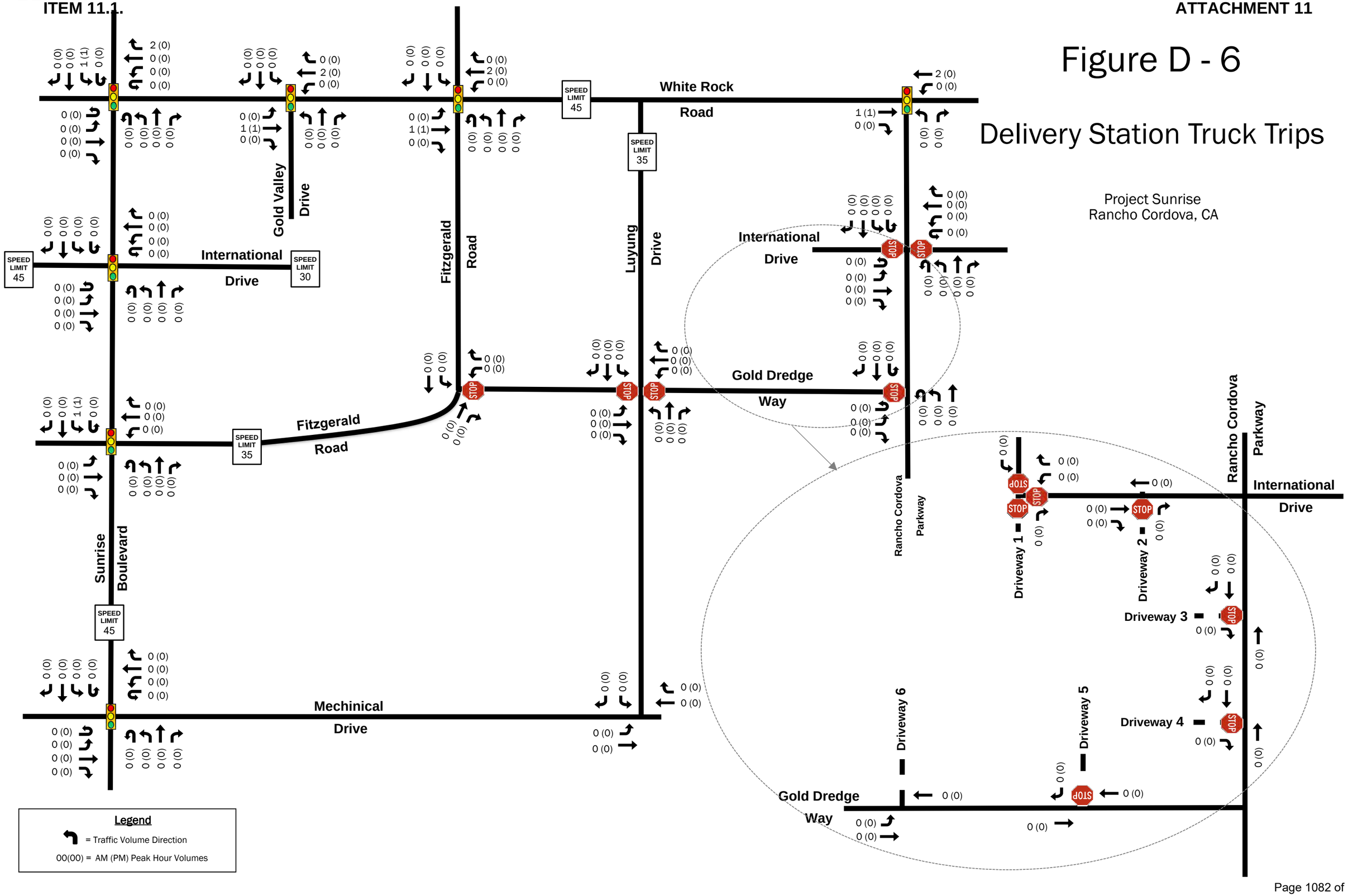


Figure D - 6

Delivery Station Truck Trips

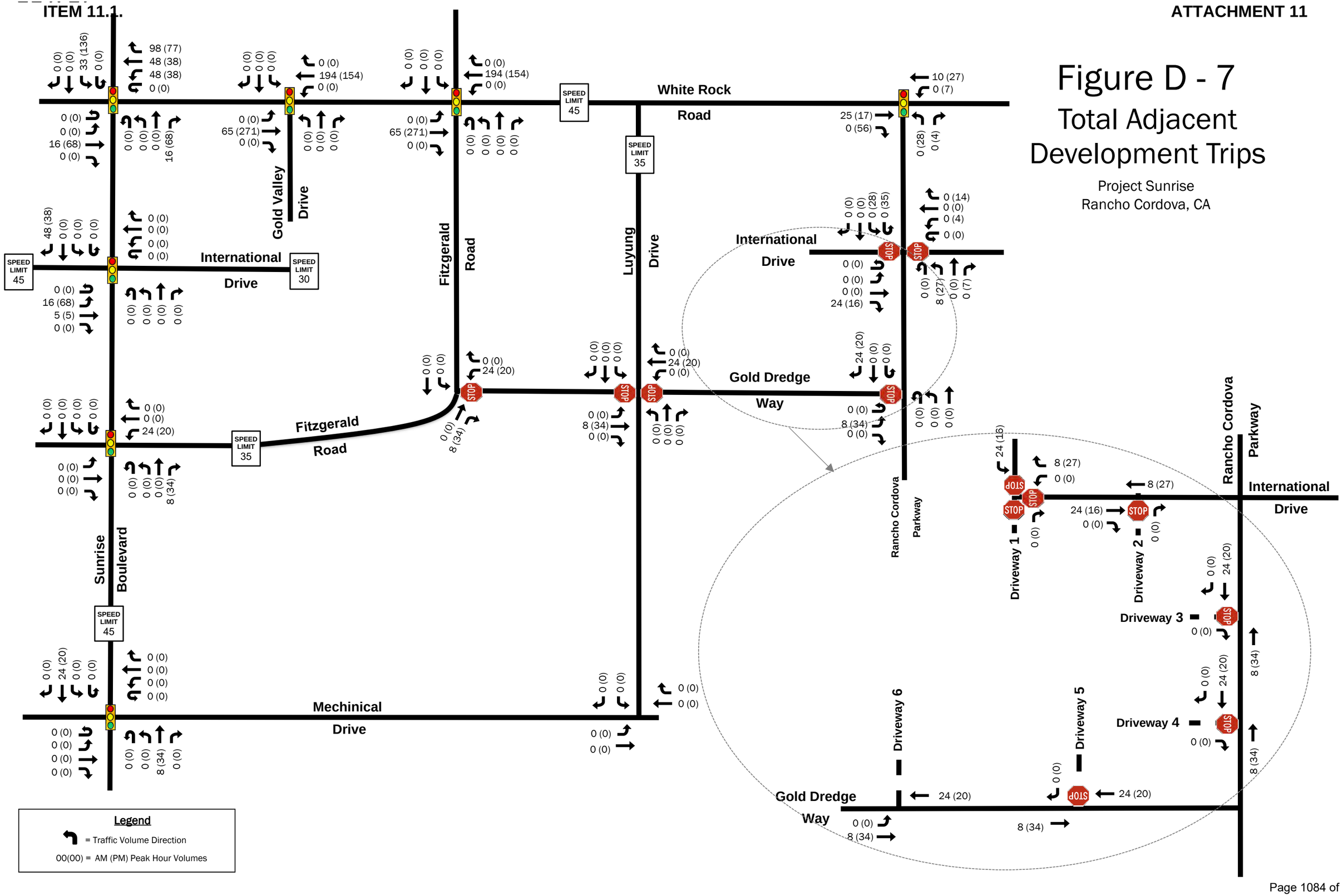
Project Sunrise
Rancho Cordova, CA



Total Expected Approved Development Traffic

Figure D - 7
Total Adjacent Development Trips

Project Sunrise
Rancho Cordova, CA



Appendix E – Synchro Analysis Reports

No Build (2023)

(2023 No Project Traffic)

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (veh/h)	61	145	369	85	172	237	323	50	184	1198	124	40
Future Volume (veh/h)	61	145	369	85	172	237	323	50	184	1198	124	40
Initial Q (Qb), veh		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	
Parking Bus, Adj		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		
Adj Sat Flow, veh/h/ln		1826	1722	1826	1826	1722	1826		1826	1841	1826	
Adj Flow Rate, veh/h		145	369	85	172	237	323		184	1198	124	
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Percent Heavy Veh, %		5	12	5	5	12	5		5	4	5	
Cap, veh/h		213	737	348	242	1100	361		259	1732	532	
Arrive On Green		0.06	0.23	0.23	0.07	0.23	0.23		0.08	0.34	0.34	
Sat Flow, veh/h		3374	3272	1543	3374	4701	1543		3374	5025	1545	
Grp Volume(v), veh/h		145	369	85	172	237	323		184	1198	124	
Grp Sat Flow(s),veh/h/ln		1687	1636	1543	1687	1567	1543		1687	1675	1545	
Q Serve(g_s), s		4.1	9.6	4.4	4.8	4.0	19.7		5.2	19.9	5.6	
Cycle Q Clear(g_c), s		4.1	9.6	4.4	4.8	4.0	19.7		5.2	19.9	5.6	
Prop In Lane		1.00		1.00	1.00		1.00		1.00		1.00	
Lane Grp Cap(c), veh/h		213	737	348	242	1100	361		259	1732	532	
V/C Ratio(X)		0.68	0.50	0.24	0.71	0.22	0.89		0.71	0.69	0.23	
Avail Cap(c_a), veh/h		364	814	384	364	1170	384		458	1835	564	
HCM Platoon Ratio		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	
Uniform Delay (d), s/veh		44.6	32.9	30.9	44.1	30.0	36.1		43.8	27.4	22.7	
Incr Delay (d2), s/veh		3.8	0.5	0.4	3.8	0.1	21.8		3.6	1.1	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	
%ile BackOfQ(95%),veh/ln		3.2	6.6	2.9	3.7	2.6	14.2		4.0	12.1	3.5	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		48.3	33.4	31.2	47.9	30.1	57.9		47.4	28.5	22.9	
LnGrp LOS		D	C	C	D	C	E		D	C	C	
Approach Vol, veh/h			599			732				1506		
Approach Delay, s/veh			36.7			46.6				30.3		
Approach LOS			D			D				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	39.5	12.5	27.7	13.0	44.1	11.7	28.5
Change Period (Y+Rc), s	5.5	* 6	5.5	* 5.8	5.5	6.0	5.5	5.8
Max Green Setting (Gmax), s	17.5	* 36	10.5	* 24	13.2	39.3	10.5	24.2
Max Q Clear Time (g_c+I1), s	11.3	21.9	6.8	11.6	7.2	18.7	6.1	21.7
Green Ext Time (p_c), s	0.8	11.6	0.2	4.5	0.3	16.0	0.2	1.0

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	331	1104	145
Future Volume (veh/h)	331	1104	145
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1826	1841	1826
Adj Flow Rate, veh/h	331	1104	145
Peak Hour Factor	1.00	1.00	1.00
Percent Heavy Veh, %	5	4	5
Cap, veh/h	417	1968	605
Arrive On Green	0.12	0.39	0.39
Sat Flow, veh/h	3374	5025	1545
Grp Volume(v), veh/h	331	1104	145
Grp Sat Flow(s),veh/h/ln	1687	1675	1545
Q Serve(g_s), s	9.3	16.7	6.1
Cycle Q Clear(g_c), s	9.3	16.7	6.1
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	417	1968	605
V/C Ratio(X)	0.79	0.56	0.24
Avail Cap(c_a), veh/h	607	2031	624
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	23.1	19.9
Incr Delay (d2), s/veh	4.5	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.1	10.2	3.8
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	45.9	23.4	20.1
LnGrp LOS	D	C	C
Approach Vol, veh/h		1580	
Approach Delay, s/veh		27.8	
Approach LOS		C	
Timer - Assigned Phs			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	164	52	269	7	16	38	6	210	1399	15	85	943
Future Volume (veh/h)	164	52	269	7	16	38	6	210	1399	15	85	943
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99		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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1841	1870	1870	1841
Adj Flow Rate, veh/h	164	52	269	7	16	38		210	1399	15	85	943
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	4	2	2	4
Cap, veh/h	291	292	434	10	35	83		289	2354	25	109	2135
Arrive On Green	0.08	0.16	0.16	0.01	0.07	0.07		0.08	0.46	0.46	0.06	0.42
Sat Flow, veh/h	3456	1870	2779	1781	489	1161		3456	5126	55	1781	5025
Grp Volume(v), veh/h	164	52	269	7	0	54		210	914	500	85	943
Grp Sat Flow(s),veh/h/ln	1728	1870	1389	1781	0	1650		1728	1675	1831	1781	1675
Q Serve(g_s), s	3.0	1.6	5.9	0.3	0.0	2.1		3.9	13.4	13.4	3.1	8.7
Cycle Q Clear(g_c), s	3.0	1.6	5.9	0.3	0.0	2.1		3.9	13.4	13.4	3.1	8.7
Prop In Lane	1.00		1.00	1.00		0.70		1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	291	292	434	10	0	118		289	1538	841	109	2135
V/C Ratio(X)	0.56	0.18	0.62	0.72	0.00	0.46		0.73	0.59	0.59	0.78	0.44
Avail Cap(c_a), veh/h	1077	1334	1982	119	0	737		289	1635	893	181	2498
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
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	24.1	25.9	32.7	0.0	29.3		29.4	13.2	13.2	30.4	13.4
Incr Delay (d2), s/veh	1.7	0.3	1.4	66.5	0.0	2.8		8.8	0.5	1.0	11.2	0.1
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
%ile BackOfQ(95%),veh/ln	2.2	1.2	3.5	0.5	0.0	1.6		3.3	7.4	8.1	2.8	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	24.4	27.4	99.2	0.0	32.1		38.2	13.8	14.2	41.6	13.5
LnGrp LOS	C	C	C	F	A	C		D	B	B	D	B
Approach Vol, veh/h		485			61				1624			1293
Approach Delay, s/veh		28.2			39.8				17.1			15.4
Approach LOS		C			D				B			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	35.7	5.5	15.9	11.0	33.4	11.0	10.3
Change Period (Y+Rc), s	* 4.7	5.5	* 5.1	* 5.6	5.5	* 5.5	5.5	5.6
Max Green Setting (Gmax), s	* 6.7	32.1	* 4.4	* 47	5.5	* 33	20.5	29.4
Max Q Clear Time (g_c+I1), s	5.1	15.4	2.3	7.9	5.9	10.7	5.0	4.1
Green Ext Time (p_c), s	0.0	14.9	0.0	1.8	0.0	15.4	0.5	0.1

Intersection Summary	
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	265
Future Volume (veh/h)	265
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	265
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	672
Arrive On Green	0.42
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	265
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	7.6
Cycle Q Clear(g_c), s	7.6
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	672
V/C Ratio(X)	0.39
Avail Cap(c_a), veh/h	787
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	13.1
Incr Delay (d2), s/veh	0.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	4.4
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	13.4
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	34	3	1	45	4	29	3	7	1582	82	61	887
Future Volume (veh/h)	34	3	1	45	4	29	3	7	1582	82	61	887
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99		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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1841	1870	1870	1841
Adj Flow Rate, veh/h	36	0	1	48	0	29		7	1582	82	61	887
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	4	2	2	4
Cap, veh/h	95	0	42	151	0	66		10	2875	149	78	3040
Arrive On Green	0.03	0.00	0.03	0.04	0.00	0.04		0.01	0.59	0.59	0.04	0.62
Sat Flow, veh/h	3563	0	1563	3563	0	1563		1781	4891	253	1781	4867
Grp Volume(v), veh/h	36	0	1	48	0	29		7	1083	581	61	610
Grp Sat Flow(s),veh/h/ln	1781	0	1563	1781	0	1563		1781	1675	1795	1781	1675
Q Serve(g_s), s	0.7	0.0	0.0	0.9	0.0	1.3		0.3	13.7	13.7	2.4	5.8
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.9	0.0	1.3		0.3	13.7	13.7	2.4	5.8
Prop In Lane	1.00		1.00	1.00		1.00		1.00		0.14	1.00	
Lane Grp Cap(c), veh/h	95	0	42	151	0	66		10	1969	1055	78	2092
V/C Ratio(X)	0.38	0.00	0.02	0.32	0.00	0.44		0.72	0.55	0.55	0.78	0.29
Avail Cap(c_a), veh/h	1052	0	461	928	0	407		123	2089	1119	187	2205
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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	32.9	32.3	0.0	32.4		34.5	8.7	8.7	32.9	6.0
Incr Delay (d2), s/veh	2.5	0.0	0.2	1.2	0.0	4.5		67.2	0.3	0.5	15.6	0.1
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
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.0	0.7	0.0	1.0		0.5	6.4	7.1	2.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	0.0	33.1	33.5	0.0	36.9		101.6	9.0	9.2	48.5	6.1
LnGrp LOS	D	A	C	C	A	D		F	A	A	D	A
Approach Vol, veh/h		37			77				1671			998
Approach Delay, s/veh		35.6			34.8				9.5			8.7
Approach LOS		D			C				A			A

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	45.9		7.4	5.2	48.5		8.4				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	* 4.8	5.1		5.5				
Max Green Setting (Gmax), s	* 7.3	43.3		20.5	* 4.8	45.7		18.1				
Max Q Clear Time (g_c+I1), s	4.4	15.7		2.7	2.3	7.8		3.3				
Green Ext Time (p_c), s	0.0	25.1		0.1	0.0	21.0		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		10.2
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	50
Future Volume (veh/h)	50
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	50
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	171
Arrive On Green	0.62
Sat Flow, veh/h	274
Grp Volume(v), veh/h	327
Grp Sat Flow(s),veh/h/ln	1791
Q Serve(g_s), s	5.8
Cycle Q Clear(g_c), s	5.8
Prop In Lane	0.15
Lane Grp Cap(c), veh/h	1119
V/C Ratio(X)	0.29
Avail Cap(c_a), veh/h	1179
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	6.0
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	2.7
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	6.1
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	46	1	0	21	0	7	1	13	1680	70	22	7
Future Volume (veh/h)	46	1	0	21	0	7	1	13	1680	70	22	7
Initial Q (Qb), veh	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
Parking Bus, Adj	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			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870		1870
Adj Flow Rate, veh/h	46	1	0	21	0	7		13	1680	70		7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2		2
Cap, veh/h	81	2	74	56	0	50		29	2699	112		16
Arrive On Green	0.05	0.05	0.00	0.03	0.00	0.03		0.02	0.54	0.54		0.01
Sat Flow, veh/h	1745	38	1585	1781	0	1585		1781	5027	209		1781
Grp Volume(v), veh/h	47	0	0	21	0	7		13	1137	613		7
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1781	0	1585		1781	1702	1833		1781
Q Serve(g_s), s	1.4	0.0	0.0	0.6	0.0	0.2		0.4	12.9	12.9		0.2
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.6	0.0	0.2		0.4	12.9	12.9		0.2
Prop In Lane	0.98		1.00	1.00		1.00		1.00		0.11		1.00
Lane Grp Cap(c), veh/h	83	0	74	56	0	50		29	1828	984		16
V/C Ratio(X)	0.57	0.00	0.00	0.37	0.00	0.14		0.45	0.62	0.62		0.43
Avail Cap(c_a), veh/h	583	0	518	583	0	518		167	2885	1553		196
HCM Platoon Ratio	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	0.00	0.00	1.00	0.00	1.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	25.8	0.0	0.0	26.3	0.0	26.1		27.0	8.9	8.9		27.3
Incr Delay (d2), s/veh	6.0	0.0	0.0	4.1	0.0	1.3		10.3	0.3	0.7		16.5
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
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0	0.6	0.0	0.2		0.4	5.6	6.2		0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	0.0	0.0	30.3	0.0	27.3		37.3	9.3	9.6		43.8
LnGrp LOS	C	A	A	C	A	C		D	A	A		D
Approach Vol, veh/h		47			28				1763			
Approach Delay, s/veh		31.8			29.6				9.6			
Approach LOS		C			C				A			

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	34.8		8.1	5.7	34.3		7.2				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	* 4.8	5.1		5.5				
Max Green Setting (Gmax), s	* 6.1	46.9		18.1	* 5.2	47.7		18.1				
Max Q Clear Time (g_c+I1), s	2.2	14.9		3.4	2.4	7.8		2.6				
Green Ext Time (p_c), s	0.0	14.8		0.1	0.0	7.7		0.1				

Intersection Summary		
HCM 6th Ctrl Delay	9.6	
HCM 6th LOS	A	

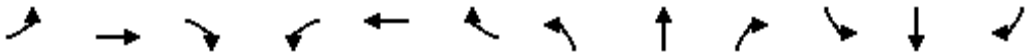
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



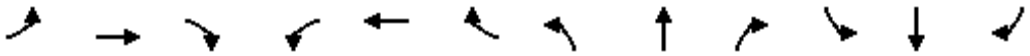
Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	878	71
Future Volume (veh/h)	878	71
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	878	71
Peak Hour Factor	1.00	1.00
Percent Heavy Veh, %	2	2
Cap, veh/h	2543	205
Arrive On Green	0.53	0.53
Sat Flow, veh/h	4816	388
Grp Volume(v), veh/h	620	329
Grp Sat Flow(s),veh/h/ln	1702	1800
Q Serve(g_s), s	5.8	5.8
Cycle Q Clear(g_c), s	5.8	5.8
Prop In Lane		0.22
Lane Grp Cap(c), veh/h	1797	951
V/C Ratio(X)	0.34	0.35
Avail Cap(c_a), veh/h	2934	1552
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	7.5	7.5
Incr Delay (d2), s/veh	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	3.3
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	7.7	7.8
LnGrp LOS	A	A
Approach Vol, veh/h	956	
Approach Delay, s/veh	8.0	
Approach LOS	A	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	594	29	4	544	1	13	0	18	0	0	1
Future Volume (veh/h)	0	594	29	4	544	1	13	0	18	0	0	1
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	0.98		0.99	1.00		0.99
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	1722	1870	1870	1722	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	594	29	4	544	1	13	0	18	0	0	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	12	2	2	12	2	2	2	2	2	2	2
Cap, veh/h	5	1724	84	6	2301	4	228	0	51	0	0	51
Arrive On Green	0.00	0.54	0.54	0.00	0.69	0.69	0.03	0.00	0.03	0.00	0.00	0.03
Sat Flow, veh/h	1781	3175	155	1781	3351	6	1390	0	1573	0	0	1573
Grp Volume(v), veh/h	0	306	317	4	266	279	13	0	18	0	0	1
Grp Sat Flow(s),veh/h/ln	1781	1636	1694	1781	1636	1721	1390	0	1573	0	0	1573
Q Serve(g_s), s	0.0	4.1	4.1	0.1	2.4	2.4	0.4	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.1	4.1	0.1	2.4	2.4	0.4	0.0	0.4	0.0	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	5	888	920	6	1124	1182	228	0	51	0	0	51
V/C Ratio(X)	0.00	0.34	0.34	0.69	0.24	0.24	0.06	0.00	0.36	0.00	0.00	0.02
Avail Cap(c_a), veh/h	187	2530	2619	296	2630	2767	1125	0	1065	0	0	1065
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.0	5.0	19.5	2.3	2.3	18.5	0.0	18.5	0.0	0.0	18.3
Incr Delay (d2), s/veh	0.0	0.2	0.2	90.0	0.1	0.1	0.1	0.0	4.2	0.0	0.0	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(95%),veh/ln	0.0	1.0	1.1	0.3	0.1	0.1	0.2	0.0	0.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.3	5.3	109.5	2.4	2.4	18.6	0.0	22.7	0.0	0.0	18.5
LnGrp LOS	A	A	A	F	A	A	B	A	C	A	A	B
Approach Vol, veh/h		623			549			31			1	
Approach Delay, s/veh		5.3			3.2			21.0			18.5	
Approach LOS		A			A			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.8	5.6	26.7		6.8	0.0	32.4				
Change Period (Y+Rc), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		26.5	6.5	60.5		26.5	4.1	62.9				
Max Q Clear Time (g_c+I1), s		2.4	2.1	6.1		2.0	0.0	4.4				
Green Ext Time (p_c), s		0.1	0.0	15.1		0.0	0.0	12.9				

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	285	161	19	333	31	136	70	21	15	15	24
Future Volume (veh/h)	81	285	161	19	333	31	136	70	21	15	15	24
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		0.99
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	1722	1870	1870	1722	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	285	161	19	333	31	136	70	21	15	15	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	12	2	2	12	2	2	2	2	2	2	2
Cap, veh/h	104	988	477	25	779	72	231	179	54	69	25	40
Arrive On Green	0.06	0.30	0.30	0.01	0.26	0.26	0.13	0.13	0.13	0.04	0.04	0.04
Sat Flow, veh/h	1781	3272	1580	1781	3027	280	1781	1380	414	1781	644	1030
Grp Volume(v), veh/h	81	285	161	19	179	185	136	0	91	15	0	39
Grp Sat Flow(s),veh/h/ln	1781	1636	1580	1781	1636	1670	1781	0	1794	1781	0	1674
Q Serve(g_s), s	1.9	2.8	3.4	0.5	3.9	3.9	3.1	0.0	2.0	0.3	0.0	1.0
Cycle Q Clear(g_c), s	1.9	2.8	3.4	0.5	3.9	3.9	3.1	0.0	2.0	0.3	0.0	1.0
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.23	1.00		0.62
Lane Grp Cap(c), veh/h	104	988	477	25	421	430	231	0	233	69	0	65
V/C Ratio(X)	0.78	0.29	0.34	0.75	0.42	0.43	0.59	0.00	0.39	0.22	0.00	0.60
Avail Cap(c_a), veh/h	605	2261	1091	313	862	880	1314	0	1323	813	0	765
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	11.4	11.6	21.0	13.2	13.2	17.5	0.0	17.0	19.9	0.0	20.2
Incr Delay (d2), s/veh	11.6	0.2	0.4	35.5	0.7	0.7	2.4	0.0	1.1	1.6	0.0	8.6
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(95%),veh/ln	1.8	1.4	1.6	0.7	2.0	2.1	2.2	0.0	1.4	0.3	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	11.6	12.0	56.5	13.9	13.9	19.9	0.0	18.1	21.5	0.0	28.8
LnGrp LOS	C	B	B	E	B	B	B	A	B	C	A	C
Approach Vol, veh/h		527			383			227			54	
Approach Delay, s/veh		14.7			16.0			19.2			26.8	
Approach LOS		B			B			B			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	6.1	18.4		7.2	8.0	16.5				
Change Period (Y+Rc), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		31.5	7.5	29.5		19.5	14.5	22.5				
Max Q Clear Time (g_c+I1), s		5.1	2.5	5.4		3.0	3.9	5.9				
Green Ext Time (p_c), s		0.7	0.0	5.2		0.1	0.1	4.9				

Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	24	109	46	13	22
Future Vol, veh/h	33	24	109	46	13	22
Conflicting Peds, #/hr	2	2	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	24	109	46	13	22

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	184	136	0	0	157	0
Stage 1	134	-	-	-	-	-
Stage 2	50	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	805	913	-	-	1423	-
Stage 1	892	-	-	-	-	-
Stage 2	972	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	795	910	-	-	1420	-
Mov Cap-2 Maneuver	795	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	961	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	2.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	840	1420	-
HCM Lane V/C Ratio	-	-	0.068	0.009	-
HCM Control Delay (s)	-	-	9.6	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	15	38	0	31	0	15	32	4	10	46	28
Future Vol, veh/h	13	15	38	0	31	0	15	32	4	10	46	28
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	15	38	0	31	0	15	32	4	10	46	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	164	150	64	175	162	38	76	0	0	38	0	0
Stage 1	82	82	-	66	66	-	-	-	-	-	-	-
Stage 2	82	68	-	109	96	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	801	742	1000	788	730	1034	1523	-	-	1572	-	-
Stage 1	926	827	-	945	840	-	-	-	-	-	-	-
Stage 2	926	838	-	896	815	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	762	726	996	734	715	1030	1520	-	-	1569	-	-
Mov Cap-2 Maneuver	762	726	-	734	715	-	-	-	-	-	-	-
Stage 1	915	820	-	934	830	-	-	-	-	-	-	-
Stage 2	881	828	-	839	808	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	10.3	2.2	0.9
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1520	-	-	870	715	1569	-	-
HCM Lane V/C Ratio	0.01	-	-	0.076	0.043	0.006	-	-
HCM Control Delay (s)	7.4	0	-	9.5	10.3	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	0	133	0	0	161	0	0
Future Volume (veh/h)	0	133	0	0	161	0	0
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1722	1870	1870	1722	1870	1870
Adj Flow Rate, veh/h		133	0	0	161	0	0
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		12	2	2	12	2	2
Cap, veh/h		1133	549	41	1133	41	0
Arrive On Green		0.35	0.00	0.00	0.35	0.00	0.00
Sat Flow, veh/h		3358	1585	3456	3358	3456	1585
Grp Volume(v), veh/h		133	0	0	161	0	0
Grp Sat Flow(s),veh/h/ln		1636	1585	1728	1636	1728	1585
Q Serve(g_s), s		0.2	0.0	0.0	0.3	0.0	0.1
Cycle Q Clear(g_c), s		0.2	0.0	0.0	0.3	0.0	0.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1133	549	41	1133	41	-1017
V/C Ratio(X)		0.12	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h		24700	11965	2054	24700	10270	3674
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh		1.9	0.0	0.0	1.9	0.0	0.0
Incr Delay (d2), s/veh		0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		1.9	0.0	0.0	1.9	0.0	0.0
LnGrp LOS		A	A	A	A	A	A
Approach Vol, veh/h		133			161	0	
Approach Delay, s/veh		1.9			1.9	0.0	
Approach LOS		A			A		

Timer - Assigned Phs	2	3	4				8
Phs Duration (G+Y+Rc), s	0.0	0.0	8.4				8.4
Change Period (Y+Rc), s	5.5	5.5	5.5				5.5
Max Green Setting (Gmax), s	25.0	5.0	63.5				63.5
Max Q Clear Time (g_c+I1), s	0.0	0.0	2.2				2.3
Green Ext Time (p_c), s	0.0	0.0	2.8				3.4

Intersection Summary	
HCM 6th Ctrl Delay	1.9
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	24	0	0	0	8	0	0	0	0	0
Future Vol, veh/h	0	0	24	0	0	0	8	0	0	0	0	0
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	24	0	0	0	8	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	21	21	5	21	21	4	3	0	0	2	0	0
Stage 1	3	3	-	18	18	-	-	-	-	-	-	-
Stage 2	18	18	-	3	3	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	989	872	1076	989	872	1078	1618	-	-	1619	-	-
Stage 1	1019	893	-	999	880	-	-	-	-	-	-	-
Stage 2	999	880	-	1019	893	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	981	864	1072	959	864	1074	1615	-	-	1616	-	-
Mov Cap-2 Maneuver	981	864	-	959	864	-	-	-	-	-	-	-
Stage 1	1012	891	-	992	874	-	-	-	-	-	-	-
Stage 2	992	874	-	994	891	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	0	7.2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1615	-	-	-	1072	-	-	1616	-	-
HCM Lane V/C Ratio	0.005	-	-	-	0.022	-	-	-	-	-
HCM Control Delay (s)	7.2	-	-	0	8.4	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Vol, veh/h	0	0	24	0	0	0	8	0	0	0	0	0
Future Vol, veh/h	0	0	24	0	0	0	8	0	0	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	24	0	0	0	8	0	0	0	0	0
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	6.7	0	7.8	0
HCM LOS	A	-	A	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	0%	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	0	0	24	0	0	0	0
LT Vol	8	0	0	0	0	0	0	0
Through Vol	0	0	0	0	0	0	0	0
RT Vol	0	0	0	24	0	0	0	0
Lane Flow Rate	8	0	0	24	0	0	0	0
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.011	0	0	0.026	0	0	0	0
Departure Headway (Hd)	5.076	4.576	4.548	3.848	4.559	4.559	4.58	4.58
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	708	0	0	934	0	0	0	0
Service Time	2.786	2.285	2.256	1.556	2.27	2.27	2.292	2.292
HCM Lane V/C Ratio	0.011	0	0	0.026	0	0	0	0
HCM Control Delay	7.8	7.3	7.3	6.7	7.3	7.3	7.3	7.3
HCM Lane LOS	A	N	N	A	N	N	N	N
HCM 95th-tile Q	0	0	0	0.1	0	0	0	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBR
Lane Configurations	
Traffic Vol, veh/h	0
Future Vol, veh/h	0
Peak Hour Factor	1.00
Heavy Vehicles, %	2
Mvmt Flow	0
Number of Lanes	0

Approach	
Opposing Approach	
Opposing Lanes	
Conflicting Approach Left	
Conflicting Lanes Left	
Conflicting Approach Right	
Conflicting Lanes Right	
HCM Control Delay	
HCM LOS	

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	0	0	0	0	24
Future Vol, veh/h	8	0	0	0	0	24
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	0	0	0	0	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	16	16	26	0	-	0
Stage 1	14	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	1000	1059	1587	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	996	1055	1584	-	-	-
Mov Cap-2 Maneuver	996	-	-	-	-	-
Stage 1	1005	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1584	-	996	-	-	-
HCM Lane V/C Ratio	-	-	0.008	-	-	-
HCM Control Delay (s)	0	-	8.6	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-	-

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	0	0	0	0	24
Future Vol, veh/h	8	0	0	0	0	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	0	0	0	0	24
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.8	0	6.7
HCM LOS	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	8	0	0	24
LT Vol	0	0	8	0	0	0
Through Vol	0	0	0	0	0	0
RT Vol	0	0	0	0	0	24
Lane Flow Rate	0	0	8	0	0	24
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0	0	0.011	0	0	0.026
Departure Headway (Hd)	4.559	4.559	5.076	4.576	4.548	3.848
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	708	0	0	934
Service Time	2.27	2.27	2.786	2.285	2.256	1.556
HCM Lane V/C Ratio	0	0	0.011	0	0	0.026
HCM Control Delay	7.3	7.3	7.8	7.3	7.3	6.7
HCM Lane LOS	N	N	A	N	N	A
HCM 95th-tile Q	0	0	0	0	0	0.1

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	0	0	24	0
Future Vol, veh/h	0	8	0	0	24	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	0	8	0	0	24	0
Number of Lanes	1	0	0	1	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	6.4	0	7.3
HCM LOS	A	-	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	8	24
LT Vol	0	0	24
Through Vol	0	0	0
RT Vol	0	8	0
Lane Flow Rate	0	8	24
Geometry Grp	1	1	1
Degree of Util (X)	0	0.007	0.028
Departure Headway (Hd)	3.931	3.341	4.148
Convergence, Y/N	Yes	Yes	Yes
Cap	0	1073	868
Service Time	1.937	1.355	2.148
HCM Lane V/C Ratio	0	0.007	0.028
HCM Control Delay	6.9	6.4	7.3
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0	0.1

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	79	0	0	0	0	29
Future Vol, veh/h	79	0	0	0	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	0	0	0	0	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	159	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	158	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	832	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	791	1084
Mov Cap-2 Maneuver	-	-	-	-	791	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	871	-

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	1084
HCM Lane V/C Ratio	0.049	-	-	-	0.027
HCM Control Delay (s)	7.3	-	-	-	8.4
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (veh/h)	26	152	338	148	3	281	452	401	75	217	1117	186
Future Volume (veh/h)	26	152	338	148	3	281	452	401	75	217	1117	186
Initial Q (Qb), veh		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
Parking Bus, Adj		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	
Adj Sat Flow, veh/h/ln		1856	1811	1856		1856	1811	1856		1856	1856	1856
Adj Flow Rate, veh/h		152	338	148		281	452	401		217	1117	186
Peak Hour Factor		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Percent Heavy Veh, %		3	6	3		3	6	3		3	3	3
Cap, veh/h		211	848	387		351	1421	451		281	1528	473
Arrive On Green		0.06	0.25	0.25		0.10	0.29	0.29		0.08	0.30	0.30
Sat Flow, veh/h		3428	3441	1569		3428	4944	1569		3428	5066	1569
Grp Volume(v), veh/h		152	338	148		281	452	401		217	1117	186
Grp Sat Flow(s),veh/h/ln		1714	1721	1569		1714	1648	1569		1714	1689	1569
Q Serve(g_s), s		4.9	9.3	8.8		9.0	8.1	27.6		7.0	22.3	10.6
Cycle Q Clear(g_c), s		4.9	9.3	8.8		9.0	8.1	27.6		7.0	22.3	10.6
Prop In Lane		1.00		1.00		1.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h		211	848	387		351	1421	451		281	1528	473
V/C Ratio(X)		0.72	0.40	0.38		0.80	0.32	0.89		0.77	0.73	0.39
Avail Cap(c_a), veh/h		259	848	387		484	1500	476		380	1550	480
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		52.0	35.5	35.3		49.5	31.5	38.5		50.7	35.3	31.2
Incr Delay (d2), s/veh		7.4	0.3	0.6		6.6	0.1	17.8		6.6	1.8	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		4.1	6.8	6.0		7.3	5.6	18.1		5.7	13.9	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		59.3	35.8	36.0		56.1	31.6	56.2		57.3	37.0	31.7
LnGrp LOS		E	D	D		E	C	E		E	D	C
Approach Vol, veh/h			638				1134				1520	
Approach Delay, s/veh			41.4				46.4				39.3	
Approach LOS			D				D				D	

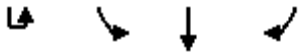
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.1	40.0	17.0	33.6	14.8	47.4	12.4	38.2
Change Period (Y+Rc), s	5.5	* 6	5.5	* 5.8	5.5	6.0	5.5	5.8
Max Green Setting (Gmax), s	20.5	* 35	15.9	* 27	12.5	42.0	8.5	34.2
Max Q Clear Time (g_c+I1), s	15.7	24.3	11.0	11.3	9.0	31.6	6.9	29.6
Green Ext Time (p_c), s	0.9	8.7	0.5	4.9	0.3	9.7	0.1	2.8

Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (veh/h)	26	429	1486	187
Future Volume (veh/h)	26	429	1486	187
Initial Q (Qb), veh		0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00
Work Zone On Approach			No	
Adj Sat Flow, veh/h/ln		1856	1856	1856
Adj Flow Rate, veh/h		429	1486	187
Peak Hour Factor		1.00	1.00	1.00
Percent Heavy Veh, %		3	3	3
Cap, veh/h		505	1858	576
Arrive On Green		0.15	0.37	0.37
Sat Flow, veh/h		3428	5066	1570
Grp Volume(v), veh/h		429	1486	187
Grp Sat Flow(s),veh/h/ln		1714	1689	1570
Q Serve(g_s), s		13.7	29.6	9.7
Cycle Q Clear(g_c), s		13.7	29.6	9.7
Prop In Lane		1.00		1.00
Lane Grp Cap(c), veh/h		505	1858	576
V/C Ratio(X)		0.85	0.80	0.32
Avail Cap(c_a), veh/h		623	1887	585
HCM Platoon Ratio		1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00
Uniform Delay (d), s/veh		46.8	32.0	25.7
Incr Delay (d2), s/veh		9.1	2.5	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		10.4	17.5	6.3
Unsig. Movement Delay, s/veh				
LnGrp Delay(d),s/veh		55.9	34.5	26.0
LnGrp LOS		E	C	C
Approach Vol, veh/h			2102	
Approach Delay, s/veh			38.1	
Approach LOS			D	
Timer - Assigned Phs				

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (veh/h)	4	301	24	198	27	36	80	10	275	1192	5	5
Future Volume (veh/h)	4	301	24	198	27	36	80	10	275	1192	5	5
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		0.99		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	
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870		1870	1856	1870	
Adj Flow Rate, veh/h		301	24	198	27	36	80		275	1192	5	
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Percent Heavy Veh, %		2	2	2	2	2	2		2	3	2	
Cap, veh/h		408	382	569	33	51	114		355	2658	11	
Arrive On Green		0.12	0.20	0.20	0.02	0.10	0.10		0.10	0.51	0.51	
Sat Flow, veh/h		3456	1870	2782	1781	514	1142		3456	5207	22	
Grp Volume(v), veh/h		301	24	198	27	0	116		275	773	424	
Grp Sat Flow(s),veh/h/ln		1728	1870	1391	1781	0	1657		1728	1689	1852	
Q Serve(g_s), s		7.3	0.9	5.3	1.3	0.0	5.9		6.8	12.7	12.7	
Cycle Q Clear(g_c), s		7.3	0.9	5.3	1.3	0.0	5.9		6.8	12.7	12.7	
Prop In Lane		1.00		1.00	1.00		0.69		1.00		0.01	
Lane Grp Cap(c), veh/h		408	382	569	33	0	166		355	1724	945	
V/C Ratio(X)		0.74	0.06	0.35	0.83	0.00	0.70		0.77	0.45	0.45	
Avail Cap(c_a), veh/h		814	971	1444	125	0	559		417	1724	945	
HCM Platoon Ratio		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	0.00	1.00		1.00	1.00	1.00	
Uniform Delay (d), s/veh		37.1	27.9	29.7	42.6	0.0	37.9		38.1	13.5	13.5	
Incr Delay (d2), s/veh		2.6	0.1	0.4	38.5	0.0	5.3		7.6	0.2	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	
%ile BackOfQ(95%),veh/ln		5.5	0.7	3.1	1.6	0.0	4.6		5.6	7.6	8.2	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		39.7	28.0	30.0	81.1	0.0	43.2		45.6	13.7	13.9	
LnGrp LOS		D	C	C	F	A	D		D	B	B	
Approach Vol, veh/h			523			143				1472		
Approach Delay, s/veh			35.5			50.4				19.7		
Approach LOS			D			D				B		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	49.9	6.7	23.4	14.4	42.5	15.8	14.3
Change Period (Y+Rc), s	* 4.7	5.5	* 5.1	* 5.6	5.5	* 5.5	5.5	5.6
Max Green Setting (Gmax), s	* 14	35.3	* 6.1	* 45	10.5	* 38	20.5	29.4
Max Q Clear Time (g_c+I1), s	3.8	14.7	3.3	7.3	8.8	24.9	9.3	7.9
Green Ext Time (p_c), s	0.0	16.4	0.0	1.1	0.2	12.2	1.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	38	1588	311
Future Volume (veh/h)	38	1588	311
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1870	1856	1870
Adj Flow Rate, veh/h	38	1588	311
Peak Hour Factor	1.00	1.00	1.00
Percent Heavy Veh, %	2	3	2
Cap, veh/h	48	2155	673
Arrive On Green	0.03	0.43	0.43
Sat Flow, veh/h	1781	5066	1583
Grp Volume(v), veh/h	38	1588	311
Grp Sat Flow(s),veh/h/ln	1781	1689	1583
Q Serve(g_s), s	1.8	22.9	12.2
Cycle Q Clear(g_c), s	1.8	22.9	12.2
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	48	2155	673
V/C Ratio(X)	0.79	0.74	0.46
Avail Cap(c_a), veh/h	276	2193	685
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	20.9	17.9
Incr Delay (d2), s/veh	24.9	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	13.0	7.7
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	67.0	22.3	18.4
LnGrp LOS	E	C	B
Approach Vol, veh/h		1937	
Approach Delay, s/veh		22.5	
Approach LOS		C	
Timer - Assigned Phs			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	111	19	15	124	5	51	9	5	1119	60	45	30
Future Volume (veh/h)	111	19	15	124	5	51	9	5	1119	60	45	30
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0		0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99		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
Work Zone On Approach		No			No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1856	1870		1870
Adj Flow Rate, veh/h	125	0	15	128	0	51		5	1119	60		30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	3	2		2
Cap, veh/h	228	0	100	239	0	106		7	2943	158		37
Arrive On Green	0.06	0.00	0.06	0.07	0.00	0.07		0.00	0.60	0.60		0.02
Sat Flow, veh/h	3563	0	1570	3563	0	1571		1781	4921	264		1781
Grp Volume(v), veh/h	125	0	15	128	0	51		5	768	411		30
Grp Sat Flow(s),veh/h/ln	1781	0	1570	1781	0	1571		1781	1689	1808		1781
Q Serve(g_s), s	2.8	0.0	0.8	2.9	0.0	2.6		0.2	9.8	9.8		1.4
Cycle Q Clear(g_c), s	2.8	0.0	0.8	2.9	0.0	2.6		0.2	9.8	9.8		1.4
Prop In Lane	1.00		1.00	1.00		1.00		1.00		0.15		1.00
Lane Grp Cap(c), veh/h	228	0	100	239	0	106		7	2020	1081		37
V/C Ratio(X)	0.55	0.00	0.15	0.53	0.00	0.48		0.71	0.38	0.38		0.82
Avail Cap(c_a), veh/h	878	0	387	801	0	353		111	2020	1081		264
HCM Platoon Ratio	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	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	37.7	0.0	36.8	37.5	0.0	37.4		41.4	8.7	8.7		40.6
Incr Delay (d2), s/veh	2.1	0.0	0.7	1.9	0.0	3.4		83.7	0.1	0.2		33.9
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
%ile BackOfQ(95%),veh/ln	2.3	0.0	0.5	2.3	0.0	1.9		0.5	5.2	5.6		1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	37.5	39.4	0.0	40.8		125.1	8.8	8.9		74.5
LnGrp LOS	D	A	D	D	A	D		F	A	A		E
Approach Vol, veh/h		140			179				1184			
Approach Delay, s/veh		39.6			39.8				9.3			
Approach LOS		D			D				A			

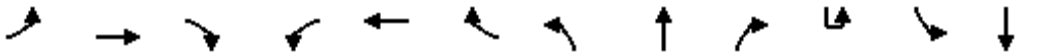
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	54.8		10.8	5.1	56.1		11.1				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	* 4.8	5.1		5.5				
Max Green Setting (Gmax), s	* 12	47.7		20.5	* 5.2	54.7		18.7				
Max Q Clear Time (g_c+I1), s	3.4	11.8		4.8	2.2	17.8		4.9				
Green Ext Time (p_c), s	0.0	25.3		0.4	0.0	33.2		0.5				

Intersection Summary		
HCM 6th Ctrl Delay	13.0	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	1695	23
Future Volume (veh/h)	1695	23
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1856	1870
Adj Flow Rate, veh/h	1695	23
Peak Hour Factor	1.00	1.00
Percent Heavy Veh, %	3	2
Cap, veh/h	3160	43
Arrive On Green	0.61	0.61
Sat Flow, veh/h	5150	70
Grp Volume(v), veh/h	1111	607
Grp Sat Flow(s),veh/h/ln	1689	1843
Q Serve(g_s), s	15.8	15.8
Cycle Q Clear(g_c), s	15.8	15.8
Prop In Lane		0.04
Lane Grp Cap(c), veh/h	2072	1131
V/C Ratio(X)	0.54	0.54
Avail Cap(c_a), veh/h	2222	1212
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	9.3	9.3
Incr Delay (d2), s/veh	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	8.6
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	9.5	9.7
LnGrp LOS	A	A
Approach Vol, veh/h	1748	
Approach Delay, s/veh	10.6	
Approach LOS	B	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	183	3	43	54	0	9	10	899	3	34	3	1819
Future Volume (veh/h)	183	3	43	54	0	9	10	899	3	34	3	1819
Initial Q (Qb), veh	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	
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
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
Adj Flow Rate, veh/h	183	3	43	54	0	9	10	899	3		3	1819
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	242	4	218	87	0	77	22	2807	9		7	2736
Arrive On Green	0.14	0.14	0.14	0.05	0.00	0.05	0.01	0.53	0.53		0.00	0.53
Sat Flow, veh/h	1754	29	1585	1781	0	1585	1781	5254	18		1781	5204
Grp Volume(v), veh/h	186	0	43	54	0	9	10	582	320		3	1190
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1781	0	1585	1781	1702	1867		1781	1702
Q Serve(g_s), s	7.5	0.0	1.8	2.2	0.0	0.4	0.4	7.2	7.2		0.1	19.1
Cycle Q Clear(g_c), s	7.5	0.0	1.8	2.2	0.0	0.4	0.4	7.2	7.2		0.1	19.1
Prop In Lane	0.98		1.00	1.00		1.00	1.00		0.01		1.00	
Lane Grp Cap(c), veh/h	246	0	218	87	0	77	22	1819	998		7	1790
V/C Ratio(X)	0.76	0.00	0.20	0.62	0.00	0.12	0.45	0.32	0.32		0.42	0.66
Avail Cap(c_a), veh/h	517	0	459	431	0	383	121	2396	1314		164	2478
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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	31.1	0.0	28.6	34.9	0.0	34.1	36.7	9.8	9.8		37.2	12.9
Incr Delay (d2), s/veh	4.7	0.0	0.4	7.1	0.0	0.7	13.4	0.1	0.2		34.2	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
%ile BackOfQ(95%),veh/ln	6.2	0.0	1.2	2.0	0.0	0.3	0.5	4.3	4.8		0.2	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	29.0	42.0	0.0	34.7	50.1	9.9	10.0		71.4	13.4
LnGrp LOS	D	A	C	D	A	C	D	A	A		E	B
Approach Vol, veh/h		229			63			912				1843
Approach Delay, s/veh		34.5			41.0			10.4				13.6
Approach LOS		C			D			B				B

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	45.1		15.8	5.4	44.5		9.2				
Change Period (Y+Rc), s	4.5	5.1		5.5	4.5	5.1		5.5				
Max Green Setting (Gmax), s	6.9	52.7		21.7	5.1	54.5		18.1				
Max Q Clear Time (g_c+I1), s	2.1	9.2		9.5	2.4	21.1		4.2				
Green Ext Time (p_c), s	0.0	7.2		0.9	0.0	18.3		0.2				

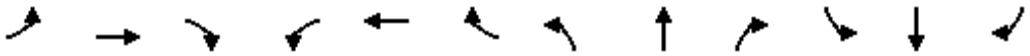
Intersection Summary			
HCM 6th Ctrl Delay		14.8	
HCM 6th LOS		B	

Notes

User approved ignoring U-Turning movement.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	21
Future Volume (veh/h)	21
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	21
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	32
Arrive On Green	0.53
Sat Flow, veh/h	60
Grp Volume(v), veh/h	650
Grp Sat Flow(s),veh/h/ln	1860
Q Serve(g_s), s	19.1
Cycle Q Clear(g_c), s	19.1
Prop In Lane	0.03
Lane Grp Cap(c), veh/h	978
V/C Ratio(X)	0.67
Avail Cap(c_a), veh/h	1354
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	12.9
Incr Delay (d2), s/veh	0.8
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	11.6
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	13.7
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	546	19	13	657	0	68	0	23	1	0	4
Future Volume (veh/h)	3	546	19	13	657	0	68	0	23	1	0	4
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	0.99		0.99	0.99		0.99
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	1811	1870	1870	1811	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	546	19	13	657	0	68	0	23	1	0	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	6	2	2	6	2	2	2	2	2	2	2
Cap, veh/h	4	1826	63	18	1879	0	271	0	119	113	9	95
Arrive On Green	0.00	0.54	0.54	0.01	0.55	0.00	0.08	0.00	0.08	0.08	0.00	0.08
Sat Flow, veh/h	1781	3392	118	1781	3532	0	1402	0	1573	199	113	1250
Grp Volume(v), veh/h	3	277	288	13	657	0	68	0	23	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1721	1790	1781	1721	0	1402	0	1573	1562	0	0
Q Serve(g_s), s	0.1	3.9	3.9	0.3	4.7	0.0	1.9	0.0	0.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	3.9	3.9	0.3	4.7	0.0	2.0	0.0	0.6	0.1	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	4	926	964	18	1879	0	271	0	119	217	0	0
V/C Ratio(X)	0.69	0.30	0.30	0.73	0.35	0.00	0.25	0.00	0.19	0.02	0.00	0.00
Avail Cap(c_a), veh/h	264	2448	2546	304	4974	0	1234	0	1199	1267	0	0
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	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.9	5.6	5.6	21.7	5.6	0.0	19.7	0.0	19.0	18.8	0.0	0.0
Incr Delay (d2), s/veh	109.5	0.2	0.2	43.2	0.1	0.0	0.5	0.0	0.8	0.0	0.0	0.0
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(95%),veh/ln	0.3	1.3	1.4	0.6	1.5	0.0	1.1	0.0	0.4	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.4	5.8	5.8	64.9	5.7	0.0	20.2	0.0	19.8	18.9	0.0	0.0
LnGrp LOS	F	A	A	E	A	A	C	A	B	B	A	A
Approach Vol, veh/h		568			670			91			5	
Approach Delay, s/veh		6.4			6.9			20.1			18.9	
Approach LOS		A			A			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		8.8	5.9	29.2		8.8	5.6	29.5				
Change Period (Y+Rc), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		33.5	7.5	62.5		33.5	6.5	63.5				
Max Q Clear Time (g_c+I1), s		4.0	2.3	5.9		2.1	2.1	6.7				
Green Ext Time (p_c), s		0.3	0.0	13.4		0.0	0.0	17.3				

Intersection Summary												
HCM 6th Ctrl Delay			7.6									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	4	430	112	18	344	30	1	204	43	30	20	51
Future Volume (veh/h)	4	430	112	18	344	30	1	204	43	30	20	51
Initial Q (Qb), veh	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	
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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1811	1870	1870	1811	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	430	112	18	344	30		204	43	30	20	51
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	6	2	2	6	2		2	2	2	2	2
Cap, veh/h	6	1019	468	24	980	85		295	170	119	147	77
Arrive On Green	0.00	0.30	0.30	0.01	0.31	0.31		0.17	0.17	0.17	0.08	0.08
Sat Flow, veh/h	1781	3441	1580	1781	3203	278		1781	1024	715	1781	934
Grp Volume(v), veh/h	4	430	112	18	184	190		204	0	73	20	0
Grp Sat Flow(s),veh/h/ln	1781	1721	1580	1781	1721	1760		1781	0	1739	1781	0
Q Serve(g_s), s	0.1	5.0	2.7	0.5	4.1	4.2		5.4	0.0	1.8	0.5	0.0
Cycle Q Clear(g_c), s	0.1	5.0	2.7	0.5	4.1	4.2		5.4	0.0	1.8	0.5	0.0
Prop In Lane	1.00		1.00	1.00		0.16		1.00		0.41	1.00	
Lane Grp Cap(c), veh/h	6	1019	468	24	527	539		295	0	288	147	0
V/C Ratio(X)	0.69	0.42	0.24	0.76	0.35	0.35		0.69	0.00	0.25	0.14	0.00
Avail Cap(c_a), veh/h	269	2110	969	304	1090	1115		1307	0	1276	806	0
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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.8	14.1	13.3	24.5	13.4	13.4		19.5	0.0	18.1	21.2	0.0
Incr Delay (d2), s/veh	91.3	0.3	0.3	38.5	0.4	0.4		2.9	0.0	0.5	0.4	0.0
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
%ile BackOfQ(95%),veh/ln	0.3	2.8	1.4	0.8	2.3	2.4		3.9	0.0	1.2	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.1	14.4	13.5	63.0	13.8	13.8		22.4	0.0	18.5	21.6	0.0
LnGrp LOS	F	B	B	E	B	B		C	A	B	C	A
Approach Vol, veh/h		546			392				277			114
Approach Delay, s/veh		14.9			16.1				21.4			26.3
Approach LOS		B			B				C			C

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	13.8	6.2	20.2	9.6	5.7	20.7
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	36.5	8.5	30.5	22.5	7.5	31.5
Max Q Clear Time (g_c+I1), s	7.4	2.5	7.0	4.6	2.1	6.2
Green Ext Time (p_c), s	0.9	0.0	7.6	0.3	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	43
Future Volume (veh/h)	43
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	43
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	65
Arrive On Green	0.08
Sat Flow, veh/h	788
Grp Volume(v), veh/h	94
Grp Sat Flow(s),veh/h/ln	1722
Q Serve(g_s), s	2.6
Cycle Q Clear(g_c), s	2.6
Prop In Lane	0.46
Lane Grp Cap(c), veh/h	142
V/C Ratio(X)	0.66
Avail Cap(c_a), veh/h	779
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	22.1
Incr Delay (d2), s/veh	5.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	2.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	27.3
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	10	55	57	10	128
Future Vol, veh/h	40	10	55	57	10	128
Conflicting Peds, #/hr	2	2	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	10	55	57	10	128

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	236	88	0	0	114	0
Stage 1	86	-	-	-	-	-
Stage 2	150	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	752	970	-	-	1475	-
Stage 1	937	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	744	966	-	-	1472	-
Mov Cap-2 Maneuver	744	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	780	1472	-
HCM Lane V/C Ratio	-	-	0.064	0.007	-
HCM Control Delay (s)	-	-	9.9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	14	35	23	4	31	9	15	67	1	4	58	8
Future Vol, veh/h	14	35	23	4	31	9	15	67	1	4	58	8
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	35	23	4	31	9	15	67	1	4	58	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	192	172	66	201	176	72	68	0	0	70	0	0
Stage 1	72	72	-	100	100	-	-	-	-	-	-	-
Stage 2	120	100	-	101	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	768	721	998	757	717	990	1533	-	-	1531	-	-
Stage 1	938	835	-	906	812	-	-	-	-	-	-	-
Stage 2	884	812	-	905	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	726	709	994	702	705	986	1530	-	-	1528	-	-
Mov Cap-2 Maneuver	726	709	-	702	705	-	-	-	-	-	-	-
Stage 1	927	831	-	895	802	-	-	-	-	-	-	-
Stage 2	832	802	-	843	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.1	1.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1530	-	-	784	748	1528	-	-
HCM Lane V/C Ratio	0.01	-	-	0.092	0.059	0.003	-	-
HCM Control Delay (s)	7.4	0	-	10.1	10.1	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	-	-

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	0	211	56	7	137	28	4
Future Volume (veh/h)	0	211	56	7	137	28	4
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1811	1870	1870	1811	1870	1870
Adj Flow Rate, veh/h		211	56	7	137	28	4
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		6	2	2	6	2	2
Cap, veh/h		1010	464	20	1806	83	47
Arrive On Green		0.29	0.29	0.01	0.52	0.02	0.02
Sat Flow, veh/h		3532	1580	3456	3532	3456	1585
Grp Volume(v), veh/h		211	56	7	137	28	4
Grp Sat Flow(s),veh/h/ln		1721	1580	1728	1721	1728	1585
Q Serve(g_s), s		1.1	0.6	0.0	0.5	0.2	0.1
Cycle Q Clear(g_c), s		1.1	0.6	0.0	0.5	0.2	0.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1010	464	20	1806	83	47
V/C Ratio(X)		0.21	0.12	0.36	0.08	0.34	0.09
Avail Cap(c_a), veh/h		7409	3401	3047	9738	4181	1927
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		6.5	6.3	12.1	2.9	11.7	11.5
Incr Delay (d2), s/veh		0.1	0.1	10.5	0.0	2.4	0.8
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.3	0.2	0.1	0.0	0.1	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		6.6	6.4	22.6	2.9	14.1	12.3
LnGrp LOS		A	A	C	A	B	B
Approach Vol, veh/h		267			144	32	
Approach Delay, s/veh		6.5			3.8	13.9	
Approach LOS		A			A	B	

Timer - Assigned Phs	2	3	4				8
Phs Duration (G+Y+Rc), s	6.1	5.6	12.7				18.3
Change Period (Y+Rc), s	5.5	5.5	5.5				5.5
Max Green Setting (Gmax), s	29.5	21.5	52.5				69.0
Max Q Clear Time (g_c+I1), s	2.2	2.0	3.1				2.5
Green Ext Time (p_c), s	0.1	0.0	4.4				2.9

Intersection Summary	
HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	16	4	0	14	27	0	7	35	28	0	0
Future Vol, veh/h	0	0	16	4	0	14	27	0	7	35	28	0	0
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	16	4	0	14	27	0	7	35	28	0	0

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	184	191	4	188	188	8	2	0	0	7	9	0	0
Stage 1	128	128	-	60	60	-	-	-	-	-	-	-	-
Stage 2	56	63	-	128	128	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	6.44	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.52	2.22	-	-
Pot Cap-1 Maneuver	760	703	1078	755	706	1072	1619	-	-	1414	1609	-	-
Stage 1	862	789	-	944	844	-	-	-	-	-	-	-	-
Stage 2	949	842	-	862	789	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	714	659	1074	707	662	1068	1616	-	-	1482	1482	-	-
Mov Cap-2 Maneuver	714	659	-	707	662	-	-	-	-	-	-	-	-
Stage 1	846	753	-	926	828	-	-	-	-	-	-	-	-
Stage 2	919	826	-	811	753	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	8.8	5.8	7.5
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1616	-	-	-	1074	707	1068	1482	-	-
HCM Lane V/C Ratio	0.017	-	-	-	0.015	0.006	0.013	0.043	-	-
HCM Control Delay (s)	7.3	-	-	0	8.4	10.1	8.4	7.5	-	-
HCM Lane LOS	A	-	-	A	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0	0	0.1	-	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Vol, veh/h	0	0	16	4	0	14	27	0	7	35	28	0
Future Vol, veh/h	0	0	16	4	0	14	27	0	7	35	28	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	16	4	0	14	27	0	7	35	28	0
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	6.9	7.1	7.8	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	7	0	16	4	14	63	0
LT Vol	27	0	0	0	4	0	63	0
Through Vol	0	0	0	0	0	0	0	0
RT Vol	0	7	0	16	0	14	0	0
Lane Flow Rate	27	7	0	16	4	14	63	0
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.038	0.008	0	0.018	0.006	0.016	0.089	0
Departure Headway (Hd)	5.124	3.923	4.71	4.009	5.209	4.007	5.109	4.609
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	698	909	0	877	679	878	702	0
Service Time	2.863	1.661	2.509	1.807	3.006	1.803	2.838	2.338
HCM Lane V/C Ratio	0.039	0.008	0	0.018	0.006	0.016	0.09	0
HCM Control Delay	8.1	6.7	7.5	6.9	8	6.9	8.3	7.3
HCM Lane LOS	A	A	N	A	A	A	A	N
HCM 95th-tile Q	0.1	0	0	0.1	0	0	0.3	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBR
Lane Configurations	
Traffic Vol, veh/h	0
Future Vol, veh/h	0
Peak Hour Factor	1.00
Heavy Vehicles, %	2
Mvmt Flow	0
Number of Lanes	0

Approach	
Opposing Approach	
Opposing Lanes	
Conflicting Approach Left	
Conflicting Lanes Left	
Conflicting Approach Right	
Conflicting Lanes Right	
HCM Control Delay	
HCM LOS	

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	0	0	0	0	20
Future Vol, veh/h	34	0	0	0	0	20
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	0	0	0	0	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	14	14	22	0	-	0
Stage 1	12	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	1003	1062	1592	-	-	-
Stage 1	1009	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	999	1058	1589	-	-	-
Mov Cap-2 Maneuver	999	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1589	-	999	-	-	-
HCM Lane V/C Ratio	-	-	0.034	-	-	-
HCM Control Delay (s)	0	-	8.7	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	0	0	0	0	20
Future Vol, veh/h	34	0	0	0	0	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	0	0	0	0	20
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	8	0	6.7
HCM LOS	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	34	0	0	20
LT Vol	0	0	34	0	0	0
Through Vol	0	0	0	0	0	0
RT Vol	0	0	0	0	0	20
Lane Flow Rate	0	0	34	0	0	20
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0	0	0.048	0	0	0.022
Departure Headway (Hd)	4.604	4.604	5.07	4.57	4.593	3.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	710	0	0	917
Service Time	2.342	2.342	2.778	2.277	2.329	1.628
HCM Lane V/C Ratio	0	0	0.048	0	0	0.022
HCM Control Delay	7.3	7.3	8	7.3	7.3	6.7
HCM Lane LOS	N	N	A	N	N	A
HCM 95th-tile Q	0	0	0.2	0	0	0.1

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	27	0	0	16	0
Future Vol, veh/h	0	27	0	0	16	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	0	27	0	0	16	0
Number of Lanes	1	0	0	1	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	6.4	0	7.3
HCM LOS	A	-	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	27	16
LT Vol	0	0	16
Through Vol	0	0	0
RT Vol	0	27	0
Lane Flow Rate	0	27	16
Geometry Grp	1	1	1
Degree of Util (X)	0	0.025	0.019
Departure Headway (Hd)	3.959	3.327	4.181
Convergence, Y/N	Yes	Yes	Yes
Cap	0	1079	861
Service Time	1.965	1.337	2.183
HCM Lane V/C Ratio	0	0.025	0.019
HCM Control Delay	7	6.4	7.3
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0.1	0.1

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	0	0	0	0	63
Future Vol, veh/h	9	0	0	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	0	0	0	0	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	19	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	18	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	998	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1622	-	-	-	992	1084
Mov Cap-2 Maneuver	-	-	-	-	992	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1005	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	1084
HCM Lane V/C Ratio	0.006	-	-	-	0.058
HCM Control Delay (s)	7.2	-	-	-	8.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Build (2023)

(2023 With Project)

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (veh/h)	61	145	384	85	172	244	337	50	184	1230	146	40
Future Volume (veh/h)	61	145	384	85	172	244	337	50	184	1230	146	40
Initial Q (Qb), veh		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	
Parking Bus, Adj		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		
Adj Sat Flow, veh/h/ln		1826	1722	1826	1826	1722	1826		1826	1841	1826	
Adj Flow Rate, veh/h		145	384	85	172	244	337		184	1230	146	
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Percent Heavy Veh, %		5	12	5	5	12	5		5	4	5	
Cap, veh/h		212	749	353	240	1116	366		257	1709	525	
Arrive On Green		0.06	0.23	0.23	0.07	0.24	0.24		0.08	0.34	0.34	
Sat Flow, veh/h		3374	3272	1543	3374	4701	1543		3374	5025	1545	
Grp Volume(v), veh/h		145	384	85	172	244	337		184	1230	146	
Grp Sat Flow(s),veh/h/ln		1687	1636	1543	1687	1567	1543		1687	1675	1545	
Q Serve(g_s), s		4.2	10.2	4.5	5.0	4.2	21.3		5.3	21.4	6.9	
Cycle Q Clear(g_c), s		4.2	10.2	4.5	5.0	4.2	21.3		5.3	21.4	6.9	
Prop In Lane		1.00		1.00	1.00		1.00		1.00		1.00	
Lane Grp Cap(c), veh/h		212	749	353	240	1116	366		257	1709	525	
V/C Ratio(X)		0.68	0.51	0.24	0.72	0.22	0.92		0.72	0.72	0.28	
Avail Cap(c_a), veh/h		355	803	379	345	1140	374		436	1787	549	
HCM Platoon Ratio		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	
Uniform Delay (d), s/veh		45.8	33.6	31.4	45.4	30.6	37.1		45.1	28.8	24.0	
Incr Delay (d2), s/veh		3.9	0.5	0.3	4.0	0.1	27.2		3.7	1.4	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	
%ile BackOfQ(95%),veh/ln		3.3	7.1	2.9	3.9	2.7	15.6		4.1	12.9	4.3	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		49.7	34.2	31.8	49.4	30.7	64.3		48.8	30.2	24.3	
LnGrp LOS		D	C	C	D	C	E		D	C	C	
Approach Vol, veh/h			614			753				1560		
Approach Delay, s/veh			37.5			50.0				31.8		
Approach LOS			D			D				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	40.0	12.6	28.7	13.1	45.5	11.8	29.5
Change Period (Y+Rc), s	5.5	* 6	5.5	* 5.8	5.5	6.0	5.5	5.8
Max Green Setting (Gmax), s	17.5	* 36	10.2	* 25	12.9	39.6	10.5	24.2
Max Q Clear Time (g_c+I1), s	12.4	23.4	7.0	12.2	7.3	19.6	6.2	23.3
Green Ext Time (p_c), s	0.7	10.6	0.2	4.6	0.3	15.8	0.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	361	1136	145
Future Volume (veh/h)	361	1136	145
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1826	1841	1826
Adj Flow Rate, veh/h	361	1136	145
Peak Hour Factor	1.00	1.00	1.00
Percent Heavy Veh, %	5	4	5
Cap, veh/h	443	1987	611
Arrive On Green	0.13	0.40	0.40
Sat Flow, veh/h	3374	5025	1545
Grp Volume(v), veh/h	361	1136	145
Grp Sat Flow(s),veh/h/ln	1687	1675	1545
Q Serve(g_s), s	10.4	17.6	6.3
Cycle Q Clear(g_c), s	10.4	17.6	6.3
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	443	1987	611
V/C Ratio(X)	0.81	0.57	0.24
Avail Cap(c_a), veh/h	591	1993	613
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	23.6	20.1
Incr Delay (d2), s/veh	6.4	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	10.7	3.9
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	48.6	24.0	20.3
LnGrp LOS	D	C	C
Approach Vol, veh/h		1642	
Approach Delay, s/veh		29.1	
Approach LOS		C	
Timer - Assigned Phs			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	179	52	269	7	16	38	6	217	1438	15	85	975
Future Volume (veh/h)	179	52	269	7	16	38	6	217	1438	15	85	975
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99		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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1841	1870	1870	1841
Adj Flow Rate, veh/h	179	52	269	7	16	38		217	1438	15	85	975
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	4	2	2	4
Cap, veh/h	307	300	446	10	35	83		286	2351	25	109	2136
Arrive On Green	0.09	0.16	0.16	0.01	0.07	0.07		0.08	0.46	0.46	0.06	0.43
Sat Flow, veh/h	3456	1870	2779	1781	489	1161		3456	5128	53	1781	5025
Grp Volume(v), veh/h	179	52	269	7	0	54		217	940	513	85	975
Grp Sat Flow(s),veh/h/ln	1728	1870	1390	1781	0	1650		1728	1675	1831	1781	1675
Q Serve(g_s), s	3.3	1.6	6.0	0.3	0.0	2.1		4.1	14.0	14.0	3.1	9.2
Cycle Q Clear(g_c), s	3.3	1.6	6.0	0.3	0.0	2.1		4.1	14.0	14.0	3.1	9.2
Prop In Lane	1.00		1.00	1.00		0.70		1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	307	300	446	10	0	117		286	1536	839	109	2136
V/C Ratio(X)	0.58	0.17	0.60	0.72	0.00	0.46		0.76	0.61	0.61	0.78	0.46
Avail Cap(c_a), veh/h	1066	1319	1960	118	0	730		286	1617	884	180	2472
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
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	24.1	25.9	33.0	0.0	29.7		29.8	13.6	13.6	30.8	13.6
Incr Delay (d2), s/veh	1.8	0.3	1.3	66.6	0.0	2.8		11.2	0.6	1.2	11.2	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
%ile BackOfQ(95%),veh/ln	2.4	1.2	3.5	0.5	0.0	1.6		3.6	7.8	8.5	2.8	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	24.4	27.3	99.7	0.0	32.4		41.0	14.2	14.7	41.9	13.8
LnGrp LOS	C	C	C	F	A	C		D	B	B	D	B
Approach Vol, veh/h		500			61				1670			1325
Approach Delay, s/veh		28.3			40.2				17.8			15.5
Approach LOS		C			D				B			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	36.0	5.5	16.3	11.0	33.8	11.4	10.3
Change Period (Y+Rc), s	* 4.7	5.5	* 5.1	* 5.6	5.5	* 5.5	5.5	5.6
Max Green Setting (Gmax), s	* 6.7	32.1	* 4.4	* 47	5.5	* 33	20.5	29.4
Max Q Clear Time (g_c+I1), s	5.1	16.0	2.3	8.0	6.1	11.2	5.3	4.1
Green Ext Time (p_c), s	0.0	14.4	0.0	1.8	0.0	15.5	0.6	0.1

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	265
Future Volume (veh/h)	265
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	265
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	673
Arrive On Green	0.43
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	265
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	7.7
Cycle Q Clear(g_c), s	7.7
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	673
V/C Ratio(X)	0.39
Avail Cap(c_a), veh/h	778
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	13.2
Incr Delay (d2), s/veh	0.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	4.4
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	13.6
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	34	3	1	50	4	68	3	7	1589	84	93	887
Future Volume (veh/h)	34	3	1	50	4	68	3	7	1589	84	93	887
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99		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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1841	1870	1870	1841
Adj Flow Rate, veh/h	36	0	1	53	0	68		7	1589	84	93	887
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	4	2	2	4
Cap, veh/h	93	0	41	250	0	110		10	2715	143	120	2999
Arrive On Green	0.03	0.00	0.03	0.07	0.00	0.07		0.01	0.56	0.56	0.07	0.62
Sat Flow, veh/h	3563	0	1562	3563	0	1572		1781	4886	258	1781	4867
Grp Volume(v), veh/h	36	0	1	53	0	68		7	1089	584	93	610
Grp Sat Flow(s),veh/h/ln	1781	0	1562	1781	0	1572		1781	1675	1794	1781	1675
Q Serve(g_s), s	0.7	0.0	0.0	1.0	0.0	3.1		0.3	15.9	15.9	3.8	6.3
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.0	0.0	3.1		0.3	15.9	15.9	3.8	6.3
Prop In Lane	1.00		1.00	1.00		1.00		1.00		0.14	1.00	
Lane Grp Cap(c), veh/h	93	0	41	250	0	110		10	1862	997	120	2064
V/C Ratio(X)	0.39	0.00	0.02	0.21	0.00	0.62		0.72	0.59	0.59	0.78	0.30
Avail Cap(c_a), veh/h	985	0	432	870	0	384		115	1957	1048	175	2065
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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	0.0	35.2	32.5	0.0	33.5		36.8	10.8	10.8	34.0	6.7
Incr Delay (d2), s/veh	2.6	0.0	0.2	0.4	0.0	5.5		68.0	0.4	0.8	12.3	0.1
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
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.0	0.8	0.0	2.3		0.5	8.1	8.7	3.5	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	35.4	32.9	0.0	39.0		104.8	11.3	11.6	46.3	6.8
LnGrp LOS	D	A	D	C	A	D		F	B	B	D	A
Approach Vol, veh/h		37			121				1680			1030
Approach Delay, s/veh		38.0			36.3				11.8			10.4
Approach LOS		D			D				B			B

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	46.3		7.4	5.2	50.8		10.7				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	* 4.8	5.1		5.5				
Max Green Setting (Gmax), s	* 7.3	43.3		20.5	* 4.8	45.7		18.1				
Max Q Clear Time (g_c+I1), s	5.8	17.9		2.7	2.3	8.4		5.1				
Green Ext Time (p_c), s	0.0	23.3		0.1	0.0	20.8		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		12.6	
HCM 6th LOS		B	

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	50
Future Volume (veh/h)	50
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	50
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	169
Arrive On Green	0.62
Sat Flow, veh/h	274
Grp Volume(v), veh/h	327
Grp Sat Flow(s),veh/h/ln	1791
Q Serve(g_s), s	6.4
Cycle Q Clear(g_c), s	6.4
Prop In Lane	0.15
Lane Grp Cap(c), veh/h	1104
V/C Ratio(X)	0.30
Avail Cap(c_a), veh/h	1104
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	6.7
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	3.2
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	6.8
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	46	1	0	23	0	7	1	13	1689	72	22	7
Future Volume (veh/h)	46	1	0	23	0	7	1	13	1689	72	22	7
Initial Q (Qb), veh	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
Parking Bus, Adj	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			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870		1870
Adj Flow Rate, veh/h	46	1	0	23	0	7		13	1689	72		7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2		2
Cap, veh/h	80	2	73	59	0	52		29	2775	118		16
Arrive On Green	0.05	0.05	0.00	0.03	0.00	0.03		0.02	0.55	0.55		0.01
Sat Flow, veh/h	1745	38	1585	1781	0	1585		1781	5022	214		1781
Grp Volume(v), veh/h	47	0	0	23	0	7		13	1145	616		7
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1781	0	1585		1781	1702	1832		1781
Q Serve(g_s), s	1.5	0.0	0.0	0.7	0.0	0.2		0.4	13.1	13.1		0.2
Cycle Q Clear(g_c), s	1.5	0.0	0.0	0.7	0.0	0.2		0.4	13.1	13.1		0.2
Prop In Lane	0.98		1.00	1.00		1.00		1.00		0.12		1.00
Lane Grp Cap(c), veh/h	82	0	73	59	0	52		29	1881	1012		16
V/C Ratio(X)	0.58	0.00	0.00	0.39	0.00	0.13		0.45	0.61	0.61		0.43
Avail Cap(c_a), veh/h	558	0	496	557	0	496		160	2759	1485		188
HCM Platoon Ratio	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	0.00	0.00	1.00	0.00	1.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	27.1	0.0	0.0	27.4	0.0	27.2		28.2	8.7	8.7		28.5
Incr Delay (d2), s/veh	6.2	0.0	0.0	4.2	0.0	1.1		10.4	0.3	0.6		16.6
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
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0	0.7	0.0	0.2		0.5	6.8	7.5		0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	0.0	0.0	31.6	0.0	28.3		38.6	9.1	9.3		45.2
LnGrp LOS	C	A	A	C	A	C		D	A	A		D
Approach Vol, veh/h		47			30				1774			
Approach Delay, s/veh		33.3			30.8				9.4			
Approach LOS		C			C				A			

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	37.1		8.2	5.7	36.6		7.4				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	* 4.8	5.1		5.5				
Max Green Setting (Gmax), s	* 6.1	46.9		18.1	* 5.2	47.7		18.1				
Max Q Clear Time (g_c+I1), s	2.2	15.1		3.5	2.4	7.9		2.7				
Green Ext Time (p_c), s	0.0	16.8		0.1	0.0	7.8		0.1				

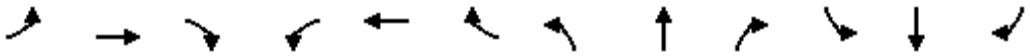
Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

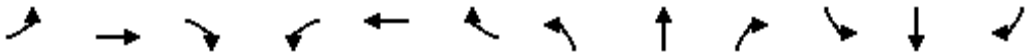
Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	883	71
Future Volume (veh/h)	883	71
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	883	71
Peak Hour Factor	1.00	1.00
Percent Heavy Veh, %	2	2
Cap, veh/h	2620	210
Arrive On Green	0.54	0.54
Sat Flow, veh/h	4819	386
Grp Volume(v), veh/h	623	331
Grp Sat Flow(s),veh/h/ln	1702	1801
Q Serve(g_s), s	5.9	5.9
Cycle Q Clear(g_c), s	5.9	5.9
Prop In Lane		0.21
Lane Grp Cap(c), veh/h	1851	979
V/C Ratio(X)	0.34	0.34
Avail Cap(c_a), veh/h	2806	1484
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	7.4	7.4
Incr Delay (d2), s/veh	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	3.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	7.5	7.6
LnGrp LOS	A	A
Approach Vol, veh/h	961	
Approach Delay, s/veh	7.8	
Approach LOS	A	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	661	29	4	564	1	13	0	18	0	0	1
Future Volume (veh/h)	0	661	29	4	564	1	13	0	18	0	0	1
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	0.98		0.99	1.00		0.99
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	1722	1870	1870	1722	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	661	29	4	564	1	13	0	18	0	0	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	12	2	2	12	2	2	2	2	2	2	2
Cap, veh/h	4	1824	80	6	2365	4	215	0	50	0	0	50
Arrive On Green	0.00	0.57	0.57	0.00	0.71	0.71	0.03	0.00	0.03	0.00	0.00	0.03
Sat Flow, veh/h	1781	3193	140	1781	3351	6	1390	0	1572	0	0	1572
Grp Volume(v), veh/h	0	339	351	4	275	290	13	0	18	0	0	1
Grp Sat Flow(s),veh/h/ln	1781	1636	1697	1781	1636	1721	1390	0	1572	0	0	1572
Q Serve(g_s), s	0.0	4.7	4.7	0.1	2.5	2.5	0.4	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.7	4.7	0.1	2.5	2.5	0.4	0.0	0.5	0.0	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	4	935	969	6	1155	1215	215	0	50	0	0	50
V/C Ratio(X)	0.00	0.36	0.36	0.69	0.24	0.24	0.06	0.00	0.36	0.00	0.00	0.02
Avail Cap(c_a), veh/h	174	2362	2449	276	2455	2583	1050	0	994	0	0	994
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.9	4.9	20.9	2.2	2.2	19.9	0.0	19.9	0.0	0.0	19.7
Incr Delay (d2), s/veh	0.0	0.2	0.2	90.4	0.1	0.1	0.1	0.0	4.3	0.0	0.0	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(95%),veh/ln	0.0	1.2	1.2	0.3	0.1	0.1	0.2	0.0	0.4	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.1	5.1	111.2	2.3	2.3	20.0	0.0	24.2	0.0	0.0	19.8
LnGrp LOS	A	A	A	F	A	A	B	A	C	A	A	B
Approach Vol, veh/h		690			569			31			1	
Approach Delay, s/veh		5.1			3.1			22.4			19.8	
Approach LOS		A			A			C			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	6.8	5.6	29.4	6.8	0.0	35.1
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	26.5	6.5	60.5	26.5	4.1	62.9
Max Q Clear Time (g_c+I1), s	2.5	2.1	6.7	2.0	0.0	4.5
Green Ext Time (p_c), s	0.1	0.0	17.2	0.0	0.0	13.5

Intersection Summary	
HCM 6th Ctrl Delay	4.6
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	352	161	19	353	31	136	70	21	15	15	24
Future Volume (veh/h)	81	352	161	19	353	31	136	70	21	15	15	24
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		0.99
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	1722	1870	1870	1722	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	352	161	19	353	31	136	70	21	15	15	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	12	2	2	12	2	2	2	2	2	2	2
Cap, veh/h	104	1013	489	25	807	70	231	179	54	69	25	40
Arrive On Green	0.06	0.31	0.31	0.01	0.27	0.27	0.13	0.13	0.13	0.04	0.04	0.04
Sat Flow, veh/h	1781	3272	1580	1781	3043	266	1781	1380	414	1781	644	1030
Grp Volume(v), veh/h	81	352	161	19	189	195	136	0	91	15	0	39
Grp Sat Flow(s),veh/h/ln	1781	1636	1580	1781	1636	1673	1781	0	1794	1781	0	1674
Q Serve(g_s), s	1.9	3.6	3.4	0.5	4.2	4.2	3.1	0.0	2.0	0.4	0.0	1.0
Cycle Q Clear(g_c), s	1.9	3.6	3.4	0.5	4.2	4.2	3.1	0.0	2.0	0.4	0.0	1.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.23	1.00		0.62
Lane Grp Cap(c), veh/h	104	1013	489	25	434	443	231	0	232	69	0	65
V/C Ratio(X)	0.78	0.35	0.33	0.75	0.44	0.44	0.59	0.00	0.39	0.22	0.00	0.60
Avail Cap(c_a), veh/h	597	2229	1076	309	850	869	1296	0	1305	802	0	754
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	11.6	11.5	21.3	13.2	13.2	17.8	0.0	17.3	20.2	0.0	20.5
Incr Delay (d2), s/veh	11.5	0.2	0.4	35.7	0.7	0.7	2.4	0.0	1.1	1.6	0.0	8.6
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(95%),veh/ln	1.8	1.7	1.6	0.7	2.2	2.3	2.2	0.0	1.4	0.3	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	11.8	11.9	57.0	13.9	13.9	20.2	0.0	18.4	21.7	0.0	29.1
LnGrp LOS	C	B	B	E	B	B	C	A	B	C	A	C
Approach Vol, veh/h		594			403			227			54	
Approach Delay, s/veh		14.5			15.9			19.4			27.1	
Approach LOS		B			B			B			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.1	6.1	18.9		7.2	8.0	17.0				
Change Period (Y+Rc), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		31.5	7.5	29.5		19.5	14.5	22.5				
Max Q Clear Time (g_c+I1), s		5.1	2.5	5.6		3.0	3.9	6.2				
Green Ext Time (p_c), s		0.7	0.0	6.4		0.1	0.1	5.1				

Intersection Summary												
HCM 6th Ctrl Delay			16.4									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	24	109	80	13	22
Future Vol, veh/h	77	24	109	80	13	22
Conflicting Peds, #/hr	2	2	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	24	109	80	13	22

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	201	153	0	0	191	0
Stage 1	151	-	-	-	-	-
Stage 2	50	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	788	893	-	-	1383	-
Stage 1	877	-	-	-	-	-
Stage 2	972	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	777	890	-	-	1380	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	960	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	2.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	801	1380	-
HCM Lane V/C Ratio	-	-	0.126	0.009	-
HCM Control Delay (s)	-	-	10.1	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	13	49	38	2	75	0	15	32	6	10	46	28
Future Vol, veh/h	13	49	38	2	75	0	15	32	6	10	46	28
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	49	38	2	75	0	15	32	6	10	46	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	187	152	64	193	163	39	76	0	0	40	0	0
Stage 1	82	82	-	67	67	-	-	-	-	-	-	-
Stage 2	105	70	-	126	96	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	774	740	1000	767	729	1033	1523	-	-	1570	-	-
Stage 1	926	827	-	943	839	-	-	-	-	-	-	-
Stage 2	901	837	-	878	815	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	700	724	996	688	714	1029	1520	-	-	1567	-	-
Mov Cap-2 Maneuver	700	724	-	688	714	-	-	-	-	-	-	-
Stage 1	915	820	-	932	829	-	-	-	-	-	-	-
Stage 2	810	827	-	787	808	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.7	2.1	0.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1520	-	-	804	713	1567	-	-
HCM Lane V/C Ratio	0.01	-	-	0.124	0.108	0.006	-	-
HCM Control Delay (s)	7.4	0	-	10.1	10.7	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.4	0	-	-

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	0	133	67	7	161	20	3
Future Volume (veh/h)	0	133	67	7	161	20	3
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1722	1870	1870	1722	1870	1870
Adj Flow Rate, veh/h		133	67	7	161	20	3
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		12	2	2	12	2	2
Cap, veh/h		749	361	20	1583	62	37
Arrive On Green		0.23	0.23	0.01	0.48	0.02	0.02
Sat Flow, veh/h		3358	1578	3456	3358	3456	1585
Grp Volume(v), veh/h		133	67	7	161	20	3
Grp Sat Flow(s),veh/h/ln		1636	1578	1728	1636	1728	1585
Q Serve(g_s), s		0.7	0.8	0.0	0.6	0.1	0.0
Cycle Q Clear(g_c), s		0.7	0.8	0.0	0.6	0.1	0.0
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		749	361	20	1583	62	37
V/C Ratio(X)		0.18	0.19	0.35	0.10	0.32	0.08
Avail Cap(c_a), veh/h		9415	4541	783	9415	3915	1805
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		6.8	6.9	10.9	3.1	10.7	10.5
Incr Delay (d2), s/veh		0.1	0.2	10.5	0.0	3.0	0.9
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.2	0.2	0.1	0.0	0.1	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		7.0	7.1	21.4	3.1	13.7	11.4
LnGrp LOS		A	A	C	A	B	B
Approach Vol, veh/h		200			168	23	
Approach Delay, s/veh		7.0			3.9	13.4	
Approach LOS		A			A	B	

Timer - Assigned Phs	2	3	4			8
Phs Duration (G+Y+Rc), s	5.9	5.6	10.5			16.2
Change Period (Y+Rc), s	5.5	5.5	5.5			5.5
Max Green Setting (Gmax), s	25.0	5.0	63.5			63.5
Max Q Clear Time (g_c+I1), s	2.1	2.0	2.8			2.6
Green Ext Time (p_c), s	0.0	0.0	2.7			3.4

Intersection Summary	
HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	0	24	0	0	0	8	0	0	0	44	30
Future Vol, veh/h	24	0	24	0	0	0	8	0	0	0	44	30
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	24	0	0	0	8	0	0	0	44	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	79	79	41	42	94	4	76	0	0	2	0	0
Stage 1	61	61	-	18	18	-	-	-	-	-	-	-
Stage 2	18	18	-	24	76	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	901	811	1021	956	795	1078	1521	-	-	1619	-	-
Stage 1	943	843	-	999	880	-	-	-	-	-	-	-
Stage 2	999	880	-	991	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	894	804	1017	926	788	1074	1518	-	-	1616	-	-
Mov Cap-2 Maneuver	894	804	-	926	788	-	-	-	-	-	-	-
Stage 1	936	841	-	992	874	-	-	-	-	-	-	-
Stage 2	992	874	-	966	829	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	0	7.4	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1518	-	-	894	1017	-	-	1616	-	-
HCM Lane V/C Ratio	0.005	-	-	0.027	0.024	-	-	-	-	-
HCM Control Delay (s)	7.4	-	-	9.1	8.6	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Vol, veh/h	24	0	24	0	0	0	8	0	0	0	0	44
Future Vol, veh/h	24	0	24	0	0	0	8	0	0	0	0	44
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	24	0	0	0	8	0	0	0	0	44
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	7.5	0	8	7.5
HCM LOS	A	-	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	100%	100%	59%
Vol Right, %	0%	0%	0%	100%	0%	0%	0%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	0	24	24	0	0	0	74
LT Vol	8	0	24	0	0	0	0	0
Through Vol	0	0	0	0	0	0	0	44
RT Vol	0	0	0	24	0	0	0	30
Lane Flow Rate	8	0	24	24	0	0	0	74
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.011	0	0.035	0.027	0	0	0	0.089
Departure Headway (Hd)	5.154	4.653	5.178	3.976	4.703	4.703	4.62	4.336
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	692	0	689	894	0	0	0	824
Service Time	2.907	2.406	2.93	1.729	2.47	2.47	2.361	2.076
HCM Lane V/C Ratio	0.012	0	0.035	0.027	0	0	0	0.09
HCM Control Delay	8	7.4	8.1	6.8	7.5	7.5	7.4	7.5
HCM Lane LOS	A	N	A	A	N	N	N	A
HCM 95th-tile Q	0	0	0.1	0.1	0	0	0	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBR
Lane Configurations	
Traffic Vol, veh/h	30
Future Vol, veh/h	30
Peak Hour Factor	1.00
Heavy Vehicles, %	2
Mvmt Flow	30
Number of Lanes	0

Approach	
Opposing Approach	
Opposing Lanes	
Conflicting Approach Left	
Conflicting Lanes Left	
Conflicting Approach Right	
Conflicting Lanes Right	
HCM Control Delay	
HCM LOS	

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	0	0	0	0	34
Future Vol, veh/h	8	0	0	0	0	34
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	0	0	0	0	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	21	21	36	0	-	0
Stage 1	19	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	993	1051	1573	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	989	1047	1570	-	-	-
Mov Cap-2 Maneuver	989	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1570	-	989	-	-	-
HCM Lane V/C Ratio	-	-	0.008	-	-	-
HCM Control Delay (s)	0	-	8.7	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-	-

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	0	0	0	0	34
Future Vol, veh/h	8	0	0	0	0	34
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	0	0	0	0	34
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	7.9	0	6.7
HCM LOS	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	8	0	0	34
LT Vol	0	0	8	0	0	0
Through Vol	0	0	0	0	0	0
RT Vol	0	0	0	0	0	34
Lane Flow Rate	0	0	8	0	0	34
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0	0	0.011	0	0	0.036
Departure Headway (Hd)	4.564	4.564	5.094	4.593	4.548	3.848
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	705	0	0	934
Service Time	2.275	2.275	2.805	2.305	2.256	1.556
HCM Lane V/C Ratio	0	0	0.011	0	0	0.036
HCM Control Delay	7.3	7.3	7.9	7.3	7.3	6.7
HCM Lane LOS	N	N	A	N	N	A
HCM 95th-tile Q	0	0	0	0	0	0.1

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	8	0	12	24	0
Future Vol, veh/h	30	8	0	12	24	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	30	8	0	12	24	0
Number of Lanes	1	0	0	1	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.2	6.4	7.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	79%	100%
Vol Thru, %	0%	0%	0%
Vol Right, %	100%	21%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	12	38	24
LT Vol	0	30	24
Through Vol	0	0	0
RT Vol	12	8	0
Lane Flow Rate	12	38	24
Geometry Grp	1	1	1
Degree of Util (X)	0.011	0.042	0.028
Departure Headway (Hd)	3.384	3.994	4.211
Convergence, Y/N	Yes	Yes	Yes
Cap	1057	899	852
Service Time	1.406	2.008	2.226
HCM Lane V/C Ratio	0.011	0.042	0.028
HCM Control Delay	6.4	7.2	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	36	0	0	38	0	12
Future Vol, veh/h	36	0	0	38	0	12
Conflicting Peds, #/hr	0	2	2	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	0
Mvmt Flow	36	0	0	38	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	40
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	1037
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	1033
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1033	-	-	-
HCM Lane V/C Ratio	0.012	-	-	-
HCM Control Delay (s)	8.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	8	46	22
Future Vol, veh/h	0	5	0	8	46	22
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	5	0	8	46	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	38	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	1032	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1028	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	1028	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s)	-	8.5	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	8	29	22
Future Vol, veh/h	0	5	0	8	29	22
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	5	0	8	29	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	30	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	1044	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1040	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	1040	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s)	-	8.5	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

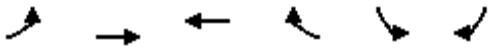
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	8	0	0	34	0	0	0	0	0	0	36
Future Vol, veh/h	0	8	0	0	34	0	0	0	0	0	0	36
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	0	2	2	2	2	2	2	2	2	0
Mvmt Flow	0	8	0	0	34	0	0	0	0	0	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	12	-	-	36
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.22	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.318	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	1069	0	0	1042
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	1065	-	-	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	8.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	-	-	-	-	1040
HCM Lane V/C Ratio	-	-	-	-	0.035
HCM Control Delay (s)	0	-	-	-	8.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	8	70	0	0	0
Future Volume (Veh/h)	36	8	70	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	36	8	70	0	0	0
Pedestrians		2	2		2	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	72				154	74
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	72				154	74
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1541				816	986

Direction, Lane #	EB 1	WB 1
Volume Total	44	70
Volume Left	36	0
Volume Right	0	0
cSH	1541	1700
Volume to Capacity	0.02	0.04
Queue Length 95th (ft)	2	0
Control Delay (s)	6.1	0.0
Lane LOS	A	
Approach Delay (s)	6.1	0.0
Approach LOS		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	19.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	81	0	0	0	0	31
Future Vol, veh/h	81	0	0	0	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	0	0	0	0	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	163	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	162	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	828	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	867	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	787	1084
Mov Cap-2 Maneuver	-	-	-	-	787	-
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	867	-

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	1084
HCM Lane V/C Ratio	0.05	-	-	-	0.029
HCM Control Delay (s)	7.3	-	-	-	8.4
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (veh/h)	26	152	356	148	3	281	533	563	75	217	1136	213
Future Volume (veh/h)	26	152	356	148	3	281	533	563	75	217	1136	213
Initial Q (Qb), veh		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
Parking Bus, Adj		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	
Adj Sat Flow, veh/h/ln		1856	1811	1856		1856	1811	1856		1856	1856	1856
Adj Flow Rate, veh/h		152	356	148		281	533	563		217	1136	213
Peak Hour Factor		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Percent Heavy Veh, %		3	6	3		3	6	3		3	3	3
Cap, veh/h		209	880	401		349	1465	465		280	1465	454
Arrive On Green		0.06	0.26	0.26		0.10	0.30	0.30		0.08	0.29	0.29
Sat Flow, veh/h		3428	3441	1569		3428	4944	1569		3428	5066	1569
Grp Volume(v), veh/h		152	356	148		281	533	563		217	1136	213
Grp Sat Flow(s),veh/h/ln		1714	1721	1569		1714	1648	1569		1714	1689	1569
Q Serve(g_s), s		5.0	9.9	8.9		9.3	9.8	34.2		7.2	23.7	12.9
Cycle Q Clear(g_c), s		5.0	9.9	8.9		9.3	9.8	34.2		7.2	23.7	12.9
Prop In Lane		1.00		1.00		1.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h		209	880	401		349	1465	465		280	1465	454
V/C Ratio(X)		0.73	0.40	0.37		0.81	0.36	1.21		0.78	0.78	0.47
Avail Cap(c_a), veh/h		253	880	401		472	1465	465		371	1514	469
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		53.2	35.7	35.3		50.7	32.0	40.6		52.0	37.6	33.7
Incr Delay (d2), s/veh		8.0	0.3	0.6		7.2	0.2	113.3		7.2	2.5	0.8
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		4.2	7.3	6.1		7.6	6.8	40.0		5.9	14.9	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		61.3	36.0	35.9		57.9	32.2	153.9		59.2	40.1	34.5
LnGrp LOS		E	D	D		E	C	F		E	D	C
Approach Vol, veh/h			656				1377				1566	
Approach Delay, s/veh			41.8				87.2				42.0	
Approach LOS			D				F				D	

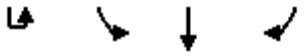
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	39.4	17.2	35.3	14.9	47.9	12.5	40.0
Change Period (Y+Rc), s	5.5	* 6	5.5	* 5.8	5.5	6.0	5.5	5.8
Max Green Setting (Gmax), s	20.5	* 35	15.9	* 27	12.5	42.0	8.5	34.2
Max Q Clear Time (g_c+I1), s	17.3	25.7	11.3	11.9	9.2	33.2	7.0	36.2
Green Ext Time (p_c), s	0.7	7.7	0.5	5.0	0.3	8.3	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.2
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (veh/h)	26	465	1510	187
Future Volume (veh/h)	26	465	1510	187
Initial Q (Qb), veh		0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00
Work Zone On Approach			No	
Adj Sat Flow, veh/h/ln		1856	1856	1856
Adj Flow Rate, veh/h		465	1510	187
Peak Hour Factor		1.00	1.00	1.00
Percent Heavy Veh, %		3	3	3
Cap, veh/h		534	1841	570
Arrive On Green		0.16	0.36	0.36
Sat Flow, veh/h		3428	5066	1570
Grp Volume(v), veh/h		465	1510	187
Grp Sat Flow(s),veh/h/ln		1714	1689	1570
Q Serve(g_s), s		15.3	31.2	9.9
Cycle Q Clear(g_c), s		15.3	31.2	9.9
Prop In Lane		1.00		1.00
Lane Grp Cap(c), veh/h		534	1841	570
V/C Ratio(X)		0.87	0.82	0.33
Avail Cap(c_a), veh/h		609	1844	571
HCM Platoon Ratio		1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00
Uniform Delay (d), s/veh		47.6	33.3	26.5
Incr Delay (d2), s/veh		11.9	3.1	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		11.6	18.4	6.5
Unsig. Movement Delay, s/veh				
LnGrp Delay(d),s/veh		59.4	36.4	26.9
LnGrp LOS		E	D	C
Approach Vol, veh/h			2162	
Approach Delay, s/veh			40.5	
Approach LOS			D	
Timer - Assigned Phs				

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (veh/h)	4	319	24	198	27	36	80	10	356	1220	5	5
Future Volume (veh/h)	4	319	24	198	27	36	80	10	356	1220	5	5
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		0.99		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	
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870		1870	1856	1870	
Adj Flow Rate, veh/h		319	24	198	27	36	80		356	1220	5	
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Percent Heavy Veh, %		2	2	2	2	2	2		2	3	2	
Cap, veh/h		424	389	578	33	51	113		405	2676	11	
Arrive On Green		0.12	0.21	0.21	0.02	0.10	0.10		0.12	0.51	0.51	
Sat Flow, veh/h		3456	1870	2782	1781	514	1142		3456	5207	21	
Grp Volume(v), veh/h		319	24	198	27	0	116		356	791	434	
Grp Sat Flow(s),veh/h/ln		1728	1870	1391	1781	0	1657		1728	1689	1852	
Q Serve(g_s), s		8.0	0.9	5.4	1.4	0.0	6.1		9.1	13.3	13.3	
Cycle Q Clear(g_c), s		8.0	0.9	5.4	1.4	0.0	6.1		9.1	13.3	13.3	
Prop In Lane		1.00		1.00	1.00		0.69		1.00		0.01	
Lane Grp Cap(c), veh/h		424	389	578	33	0	164		405	1735	951	
V/C Ratio(X)		0.75	0.06	0.34	0.83	0.00	0.71		0.88	0.46	0.46	
Avail Cap(c_a), veh/h		790	943	1402	121	0	543		405	1735	951	
HCM Platoon Ratio		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	0.00	1.00		1.00	1.00	1.00	
Uniform Delay (d), s/veh		38.0	28.5	30.3	43.9	0.0	39.1		39.0	13.8	13.8	
Incr Delay (d2), s/veh		2.7	0.1	0.3	38.0	0.0	5.5		19.5	0.2	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	
%ile BackOfQ(95%),veh/ln		6.1	0.7	3.2	1.7	0.0	4.8		8.3	7.9	8.6	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		40.8	28.6	30.6	81.9	0.0	44.6		58.5	14.0	14.2	
LnGrp LOS		D	C	C	F	A	D		E	B	B	
Approach Vol, veh/h			541			143				1581		
Approach Delay, s/veh			36.5			51.6				24.1		
Approach LOS			D			D				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	51.6	6.7	24.2	16.0	42.7	16.5	14.5
Change Period (Y+Rc), s	* 4.7	5.5	* 5.1	* 5.6	5.5	* 5.5	5.5	5.6
Max Green Setting (Gmax), s	* 14	35.3	* 6.1	* 45	10.5	* 38	20.5	29.4
Max Q Clear Time (g_c+I1), s	3.9	15.3	3.4	7.4	11.1	26.5	10.0	8.1
Green Ext Time (p_c), s	0.0	16.2	0.0	1.1	0.0	10.7	1.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	38	1612	311
Future Volume (veh/h)	38	1612	311
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1870	1856	1870
Adj Flow Rate, veh/h	38	1612	311
Peak Hour Factor	1.00	1.00	1.00
Percent Heavy Veh, %	2	3	2
Cap, veh/h	48	2101	656
Arrive On Green	0.03	0.41	0.41
Sat Flow, veh/h	1781	5066	1583
Grp Volume(v), veh/h	38	1612	311
Grp Sat Flow(s),veh/h/ln	1781	1689	1583
Q Serve(g_s), s	1.9	24.5	12.8
Cycle Q Clear(g_c), s	1.9	24.5	12.8
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	48	2101	656
V/C Ratio(X)	0.79	0.77	0.47
Avail Cap(c_a), veh/h	268	2129	665
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	22.5	19.1
Incr Delay (d2), s/veh	24.6	1.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	13.9	8.0
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	68.0	24.2	19.6
LnGrp LOS	E	C	B
Approach Vol, veh/h		1961	
Approach Delay, s/veh		24.4	
Approach LOS		C	
Timer - Assigned Phs			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	111	19	15	165	5	151	9	5	1128	61	45	54
Future Volume (veh/h)	111	19	15	165	5	151	9	5	1128	61	45	54
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0		0
Ped-Bike Adj(A_pbT)	1.00		0.99	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
Work Zone On Approach		No			No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1856	1870		1870
Adj Flow Rate, veh/h	125	0	15	169	0	151		5	1128	61		54
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	3	2		2
Cap, veh/h	222	0	98	446	0	197		7	2661	144		70
Arrive On Green	0.06	0.00	0.06	0.13	0.00	0.13		0.00	0.54	0.54		0.04
Sat Flow, veh/h	3563	0	1570	3563	0	1577		1781	4918	266		1781
Grp Volume(v), veh/h	125	0	15	169	0	151		5	774	415		54
Grp Sat Flow(s),veh/h/ln	1781	0	1570	1781	0	1577		1781	1689	1807		1781
Q Serve(g_s), s	3.1	0.0	0.8	3.9	0.0	8.3		0.3	12.2	12.2		2.7
Cycle Q Clear(g_c), s	3.1	0.0	0.8	3.9	0.0	8.3		0.3	12.2	12.2		2.7
Prop In Lane	1.00		1.00	1.00		1.00		1.00		0.15		1.00
Lane Grp Cap(c), veh/h	222	0	98	446	0	197		7	1827	978		70
V/C Ratio(X)	0.56	0.00	0.15	0.38	0.00	0.77		0.72	0.42	0.42		0.77
Avail Cap(c_a), veh/h	815	0	359	744	0	329		103	1827	978		245
HCM Platoon Ratio	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	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	40.8	0.0	39.7	36.0	0.0	37.9		44.6	12.2	12.2		42.6
Incr Delay (d2), s/veh	2.2	0.0	0.7	0.5	0.0	6.1		84.6	0.2	0.3		16.4
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
%ile BackOfQ(95%),veh/ln	2.5	0.0	0.6	3.0	0.0	6.2		0.5	7.2	7.7		2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	0.0	40.5	36.5	0.0	44.0		129.2	12.4	12.5		59.1
LnGrp LOS	D	A	D	D	A	D		F	B	B		E
Approach Vol, veh/h		140			320				1194			
Approach Delay, s/veh		42.7			40.0				12.9			
Approach LOS		D			D				B			

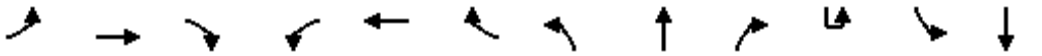
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	53.6		11.1	5.2	56.6		16.7				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	* 4.8	5.1		5.5				
Max Green Setting (Gmax), s	* 12	47.7		20.5	* 5.2	54.7		18.7				
Max Q Clear Time (g_c+I1), s	4.7	14.2		5.1	2.3	20.7		10.3				
Green Ext Time (p_c), s	0.1	24.2		0.4	0.0	30.8		0.7				

Intersection Summary		
HCM 6th Ctrl Delay	17.2	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	1695	23
Future Volume (veh/h)	1695	23
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1856	1870
Adj Flow Rate, veh/h	1695	23
Peak Hour Factor	1.00	1.00
Percent Heavy Veh, %	3	2
Cap, veh/h	2962	40
Arrive On Green	0.58	0.58
Sat Flow, veh/h	5150	70
Grp Volume(v), veh/h	1111	607
Grp Sat Flow(s),veh/h/ln	1689	1843
Q Serve(g_s), s	18.7	18.7
Cycle Q Clear(g_c), s	18.7	18.7
Prop In Lane		0.04
Lane Grp Cap(c), veh/h	1942	1060
V/C Ratio(X)	0.57	0.57
Avail Cap(c_a), veh/h	2062	1125
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	12.0	12.0
Incr Delay (d2), s/veh	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	10.7
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	12.4	12.7
LnGrp LOS	B	B
Approach Vol, veh/h	1772	
Approach Delay, s/veh	13.9	
Approach LOS	B	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	183	3	43	55	0	9	10	909	4	34	3	1860
Future Volume (veh/h)	183	3	43	55	0	9	10	909	4	34	3	1860
Initial Q (Qb), veh	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	
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
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
Adj Flow Rate, veh/h	183	3	43	55	0	9	10	909	4		3	1860
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	240	4	216	86	0	76	22	2788	12		7	2715
Arrive On Green	0.14	0.14	0.14	0.05	0.00	0.05	0.01	0.53	0.53		0.00	0.52
Sat Flow, veh/h	1754	29	1585	1781	0	1585	1781	5247	23		1781	5205
Grp Volume(v), veh/h	186	0	43	55	0	9	10	590	323		3	1216
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1781	0	1585	1781	1702	1866		1781	1702
Q Serve(g_s), s	7.8	0.0	1.9	2.4	0.0	0.4	0.4	7.6	7.6		0.1	20.7
Cycle Q Clear(g_c), s	7.8	0.0	1.9	2.4	0.0	0.4	0.4	7.6	7.6		0.1	20.7
Prop In Lane	0.98		1.00	1.00		1.00	1.00		0.01		1.00	
Lane Grp Cap(c), veh/h	243	0	216	86	0	76	22	1808	991		7	1775
V/C Ratio(X)	0.76	0.00	0.20	0.64	0.00	0.12	0.45	0.33	0.33		0.42	0.69
Avail Cap(c_a), veh/h	497	0	442	414	0	369	114	2304	1263		153	2331
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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	29.8	36.4	0.0	35.5	38.2	10.3	10.3		38.7	13.9
Incr Delay (d2), s/veh	4.9	0.0	0.4	7.7	0.0	0.7	13.5	0.1	0.2		34.3	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
%ile BackOfQ(95%),veh/ln	6.5	0.0	1.3	2.1	0.0	0.3	0.5	4.7	5.2		0.2	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	0.0	30.3	44.1	0.0	36.1	51.7	10.4	10.5		73.0	14.4
LnGrp LOS	D	A	C	D	A	D	D	B	B		E	B
Approach Vol, veh/h		229			64			923				1884
Approach Delay, s/veh		36.0			43.0			10.9				14.7
Approach LOS		D			D			B				B

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	47.5		16.1	5.8	46.7		9.2				
Change Period (Y+Rc), s	* 4.7	* 6.1		5.5	* 4.8	6.1		5.5				
Max Green Setting (Gmax), s	* 6.7	* 53		21.7	* 5	53.3		18.1				
Max Q Clear Time (g_c+I1), s	2.1	9.6		9.8	2.4	22.7		4.4				
Green Ext Time (p_c), s	0.0	7.3		0.9	0.0	17.9		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

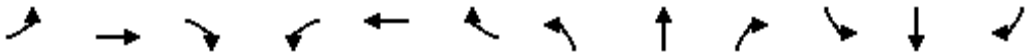
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	21
Future Volume (veh/h)	21
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	21
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	31
Arrive On Green	0.52
Sat Flow, veh/h	59
Grp Volume(v), veh/h	665
Grp Sat Flow(s),veh/h/ln	1860
Q Serve(g_s), s	20.7
Cycle Q Clear(g_c), s	20.7
Prop In Lane	0.03
Lane Grp Cap(c), veh/h	970
V/C Ratio(X)	0.69
Avail Cap(c_a), veh/h	1273
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	13.9
Incr Delay (d2), s/veh	1.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	12.6
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	14.9
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	627	19	13	899	0	68	0	23	1	0	4
Future Volume (veh/h)	3	627	19	13	899	0	68	0	23	1	0	4
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	0.99		0.99	0.99		0.99
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	1811	1870	1870	1811	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	627	19	13	899	0	68	0	23	1	0	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	6	2	2	6	2	2	2	2	2	2	2
Cap, veh/h	4	2111	64	17	2156	0	236	0	118	90	11	95
Arrive On Green	0.00	0.62	0.62	0.01	0.63	0.00	0.08	0.00	0.08	0.08	0.00	0.08
Sat Flow, veh/h	1781	3410	103	1781	3532	0	1401	0	1572	164	150	1259
Grp Volume(v), veh/h	3	316	330	13	899	0	68	0	23	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1721	1792	1781	1721	0	1401	0	1572	1573	0	0
Q Serve(g_s), s	0.1	4.8	4.8	0.4	7.4	0.0	2.4	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	4.8	4.8	0.4	7.4	0.0	2.6	0.0	0.8	0.2	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	4	1065	1110	17	2156	0	236	0	118	196	0	0
V/C Ratio(X)	0.69	0.30	0.30	0.74	0.42	0.00	0.29	0.00	0.19	0.03	0.00	0.00
Avail Cap(c_a), veh/h	208	1928	2009	240	3918	0	972	0	945	1000	0	0
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	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.8	5.0	5.0	27.5	5.3	0.0	25.0	0.0	24.2	23.9	0.0	0.0
Incr Delay (d2), s/veh	110.7	0.2	0.1	46.1	0.1	0.0	0.7	0.0	0.8	0.1	0.0	0.0
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(95%),veh/ln	0.3	1.7	1.8	0.7	2.5	0.0	1.5	0.0	0.5	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	138.5	5.1	5.1	73.7	5.4	0.0	25.7	0.0	25.0	24.0	0.0	0.0
LnGrp LOS	F	A	A	E	A	A	C	A	C	C	A	A
Approach Vol, veh/h		649			912			91			5	
Approach Delay, s/veh		5.7			6.4			25.5			24.0	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.7	6.0	40.0		9.7	5.6	40.4				
Change Period (Y+Rc), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		33.5	7.5	62.5		33.5	6.5	63.5				
Max Q Clear Time (g_c+I1), s		4.6	2.4	6.8		2.2	2.1	9.4				
Green Ext Time (p_c), s		0.3	0.0	15.9		0.0	0.0	25.6				

Intersection Summary												
HCM 6th Ctrl Delay			7.2									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	4	511	112	18	586	30	1	204	43	30	20	51
Future Volume (veh/h)	4	511	112	18	586	30	1	204	43	30	20	51
Initial Q (Qb), veh	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	
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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1811	1870	1870	1811	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	511	112	18	586	30		204	43	30	20	51
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	6	2	2	6	2		2	2	2	2	2
Cap, veh/h	6	1185	544	23	1180	60		288	166	116	146	76
Arrive On Green	0.00	0.34	0.34	0.01	0.35	0.35		0.16	0.16	0.16	0.08	0.08
Sat Flow, veh/h	1781	3441	1580	1781	3330	170		1781	1024	714	1781	934
Grp Volume(v), veh/h	4	511	112	18	302	314		204	0	73	20	0
Grp Sat Flow(s),veh/h/ln	1781	1721	1580	1781	1721	1780		1781	0	1739	1781	0
Q Serve(g_s), s	0.1	6.3	2.8	0.6	7.6	7.6		6.0	0.0	2.0	0.6	0.0
Cycle Q Clear(g_c), s	0.1	6.3	2.8	0.6	7.6	7.6		6.0	0.0	2.0	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.10		1.00		0.41	1.00	
Lane Grp Cap(c), veh/h	6	1185	544	23	609	630		288	0	281	146	0
V/C Ratio(X)	0.69	0.43	0.21	0.77	0.50	0.50		0.71	0.00	0.26	0.14	0.00
Avail Cap(c_a), veh/h	242	1904	874	275	983	1017		1179	0	1151	727	0
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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.5	13.9	12.8	27.1	13.9	14.0		21.9	0.0	20.2	23.5	0.0
Incr Delay (d2), s/veh	92.0	0.2	0.2	40.3	0.6	0.6		3.2	0.0	0.5	0.4	0.0
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
%ile BackOfQ(95%),veh/ln	0.3	3.6	1.5	0.8	4.4	4.5		4.5	0.0	1.4	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.4	14.2	12.9	67.4	14.6	14.6		25.1	0.0	20.7	23.9	0.0
LnGrp LOS	F	B	B	E	B	B		C	A	C	C	A
Approach Vol, veh/h		627			634				277			114
Approach Delay, s/veh		14.6			16.1				23.9			28.9
Approach LOS		B			B				C			C

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.4	6.2	24.5		10.0	5.7	25.0				
Change Period (Y+Rc), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		36.5	8.5	30.5		22.5	7.5	31.5				
Max Q Clear Time (g_c+I1), s		8.0	2.6	8.3		4.9	2.1	9.6				
Green Ext Time (p_c), s		0.9	0.0	8.8		0.3	0.0	9.9				

Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Notes

User approved ignoring U-Turning movement.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	43
Future Volume (veh/h)	43
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	43
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	64
Arrive On Green	0.08
Sat Flow, veh/h	788
Grp Volume(v), veh/h	94
Grp Sat Flow(s),veh/h/ln	1722
Q Serve(g_s), s	2.9
Cycle Q Clear(g_c), s	2.9
Prop In Lane	0.46
Lane Grp Cap(c), veh/h	141
V/C Ratio(X)	0.67
Avail Cap(c_a), veh/h	703
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	24.6
Incr Delay (d2), s/veh	5.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	2.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	29.9
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	181	10	55	83	10	128
Future Vol, veh/h	181	10	55	83	10	128
Conflicting Peds, #/hr	2	2	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	181	10	55	83	10	128

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	249	101	0	0	140	0
Stage 1	99	-	-	-	-	-
Stage 2	150	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	739	954	-	-	1443	-
Stage 1	925	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	731	950	-	-	1440	-
Mov Cap-2 Maneuver	731	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	740	1440	-
HCM Lane V/C Ratio	-	-	0.258	0.007	-
HCM Control Delay (s)	-	-	11.5	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	61	23	5	172	9	15	67	2	4	58	8
Future Vol, veh/h	14	61	23	5	172	9	15	67	2	4	58	8
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	61	23	5	172	9	15	67	2	4	58	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	263	173	66	214	176	72	68	0	0	71	0	0
Stage 1	72	72	-	100	100	-	-	-	-	-	-	-
Stage 2	191	101	-	114	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	690	720	998	743	717	990	1533	-	-	1529	-	-
Stage 1	938	835	-	906	812	-	-	-	-	-	-	-
Stage 2	811	811	-	891	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	548	708	994	669	705	986	1530	-	-	1526	-	-
Mov Cap-2 Maneuver	548	708	-	669	705	-	-	-	-	-	-	-
Stage 1	927	831	-	895	802	-	-	-	-	-	-	-
Stage 2	624	801	-	803	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	11.8	1.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1530	-	-	727	714	1526	-	-
HCM Lane V/C Ratio	0.01	-	-	0.135	0.261	0.003	-	-
HCM Control Delay (s)	7.4	0	-	10.7	11.8	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	1	0	-	-

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	0	211	137	16	137	270	44
Future Volume (veh/h)	0	211	137	16	137	270	44
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1811	1870	1870	1811	1870	1870
Adj Flow Rate, veh/h		211	137	16	137	270	44
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		6	2	2	6	2	2
Cap, veh/h		963	442	43	1627	574	283
Arrive On Green		0.28	0.28	0.01	0.47	0.17	0.17
Sat Flow, veh/h		3532	1579	3456	3532	3456	1585
Grp Volume(v), veh/h		211	137	16	137	270	44
Grp Sat Flow(s),veh/h/ln		1721	1579	1728	1721	1728	1585
Q Serve(g_s), s		1.4	2.1	0.1	0.7	2.2	0.7
Cycle Q Clear(g_c), s		1.4	2.1	0.1	0.7	2.2	0.7
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		963	442	43	1627	574	283
V/C Ratio(X)		0.22	0.31	0.37	0.08	0.47	0.16
Avail Cap(c_a), veh/h		5929	2721	2438	7793	3346	1554
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		8.4	8.7	14.9	4.4	11.5	10.6
Incr Delay (d2), s/veh		0.1	0.4	5.2	0.0	0.6	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.5	0.8	0.1	0.1	1.0	0.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		8.5	9.0	20.2	4.4	12.1	10.8
LnGrp LOS		A	A	C	A	B	B
Approach Vol, veh/h		348			153	314	
Approach Delay, s/veh		8.7			6.1	11.9	
Approach LOS		A			A	B	

Timer - Assigned Phs	2	3	4			8
Phs Duration (G+Y+Rc), s	10.6	5.9	14.0			19.9
Change Period (Y+Rc), s	5.5	5.5	5.5			5.5
Max Green Setting (Gmax), s	29.5	21.5	52.5			69.0
Max Q Clear Time (g_c+I1), s	4.2	2.1	4.1			2.7
Green Ext Time (p_c), s	1.3	0.0	4.4			2.9

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	10.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	283	0	16	4	0	14	27	0	7	35	28	54	36
Future Vol, veh/h	283	0	16	4	0	14	27	0	7	35	28	54	36
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	283	0	16	4	0	14	27	0	7	35	28	54	36

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	256	263	49	215	278	8	92	0	0	7	9	0	0
Stage 1	200	200	-	60	60	-	-	-	-	-	-	-	-
Stage 2	56	63	-	155	218	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	6.44	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.52	2.22	-	-
Pot Cap-1 Maneuver	676	641	1009	723	629	1072	1501	-	-	1414	1609	-	-
Stage 1	783	735	-	944	844	-	-	-	-	-	-	-	-
Stage 2	949	842	-	832	721	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	634	600	1005	677	589	1068	1498	-	-	1482	1482	-	-
Mov Cap-2 Maneuver	634	600	-	677	589	-	-	-	-	-	-	-	-
Stage 1	767	702	-	925	827	-	-	-	-	-	-	-	-
Stage 2	918	825	-	782	689	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	8.8	5.9	3.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1498	-	-	634	1005	677	1068	1482	-	-
HCM Lane V/C Ratio	0.018	-	-	0.446	0.016	0.006	0.013	0.043	-	-
HCM Control Delay (s)	7.4	-	-	15.2	8.6	10.3	8.4	7.5	-	-
HCM Lane LOS	A	-	-	C	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.3	0	0	0	0.1	-	-

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Vol, veh/h	283	0	16	4	0	14	27	0	7	35	28	54
Future Vol, veh/h	283	0	16	4	0	14	27	0	7	35	28	54
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	283	0	16	4	0	14	27	0	7	35	28	54
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12.2	7.7	8.8	9
HCM LOS	B	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	0%	0%	0%	0%	0%	0%	60%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	7	283	16	4	14	63	90
LT Vol	27	0	283	0	4	0	63	0
Through Vol	0	0	0	0	0	0	0	54
RT Vol	0	7	0	16	0	14	0	36
Lane Flow Rate	27	7	283	16	4	14	63	90
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.046	0.01	0.436	0.019	0.007	0.018	0.104	0.129
Departure Headway (Hd)	6.102	4.893	5.552	4.348	5.854	4.645	5.958	5.173
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	586	729	648	822	610	767	602	692
Service Time	3.851	2.641	3.287	2.083	3.605	2.396	3.695	2.91
HCM Lane V/C Ratio	0.046	0.01	0.437	0.019	0.007	0.018	0.105	0.13
HCM Control Delay	9.1	7.7	12.5	7.2	8.6	7.5	9.4	8.7
HCM Lane LOS	A	A	B	A	A	A	A	A
HCM 95th-tile Q	0.1	0	2.2	0.1	0	0.1	0.3	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBR
Lane Configurations	
Traffic Vol, veh/h	36
Future Vol, veh/h	36
Peak Hour Factor	1.00
Heavy Vehicles, %	2
Mvmt Flow	36
Number of Lanes	0

Approach	
Opposing Approach	
Opposing Lanes	
Conflicting Approach Left	
Conflicting Lanes Left	
Conflicting Approach Right	
Conflicting Lanes Right	
HCM Control Delay	
HCM LOS	

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	0	0	0	0	141
Future Vol, veh/h	34	0	0	0	0	141
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	0	0	0	0	141

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	75	75	143	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	920	971	1437	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	916	967	1434	-	-	-
Mov Cap-2 Maneuver	916	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1434	-	916	-	-	-
HCM Lane V/C Ratio	-	-	0.037	-	-	-
HCM Control Delay (s)	0	-	9.1	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	0	0	0	0	141
Future Vol, veh/h	34	0	0	0	0	141
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	0	0	0	0	141
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	8.3	0	7.3
HCM LOS	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	34	0	0	141
LT Vol	0	0	34	0	0	0
Through Vol	0	0	0	0	0	0
RT Vol	0	0	0	0	0	141
Lane Flow Rate	0	0	34	0	0	141
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0	0	0.05	0	0	0.152
Departure Headway (Hd)	4.664	4.664	5.282	4.781	4.593	3.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	675	0	0	918
Service Time	2.421	2.421	3.036	2.534	2.333	1.632
HCM Lane V/C Ratio	0	0	0.05	0	0	0.154
HCM Control Delay	7.4	7.4	8.3	7.5	7.3	7.3
HCM Lane LOS	N	N	A	N	N	A
HCM 95th-tile Q	0	0	0.2	0	0	0.5

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	27	0	141	16	0
Future Vol, veh/h	36	27	0	141	16	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	36	27	0	141	16	0
Number of Lanes	1	0	0	1	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.4	7	7.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	57%	100%
Vol Thru, %	0%	0%	0%
Vol Right, %	100%	43%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	141	63	16
LT Vol	0	36	16
Through Vol	0	0	0
RT Vol	141	27	0
Lane Flow Rate	141	63	16
Geometry Grp	1	1	1
Degree of Util (X)	0.134	0.07	0.019
Departure Headway (Hd)	3.422	4.027	4.352
Convergence, Y/N	Yes	Yes	Yes
Cap	1045	889	821
Service Time	1.454	2.054	2.388
HCM Lane V/C Ratio	0.135	0.071	0.019
HCM Control Delay	7	7.4	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.2	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	157	0	0	63	0	141
Future Vol, veh/h	157	0	0	63	0	141
Conflicting Peds, #/hr	0	2	2	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	0
Mvmt Flow	157	0	0	63	0	141

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	161
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	889
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	886
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	886	-	-	-
HCM Lane V/C Ratio	0.159	-	-	-
HCM Control Delay (s)	9.8	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	61	0	34	47	27
Future Vol, veh/h	0	61	0	34	47	27
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	61	0	34	47	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	41	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	1028	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1024	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	1024	-	-
HCM Lane V/C Ratio	-	0.06	-	-
HCM Control Delay (s)	-	8.7	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	61	0	34	81	27
Future Vol, veh/h	0	61	0	34	81	27
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	61	0	34	81	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	58	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	1002	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	998	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	998	-	-
HCM Lane V/C Ratio	-	0.061	-	-
HCM Control Delay (s)	-	8.8	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

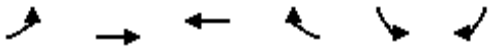
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	34	0	0	141	0	0	0	0	0	0	21
Future Vol, veh/h	0	34	0	0	141	0	0	0	0	0	0	21
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	0
Mvmt Flow	0	34	0	0	141	0	0	0	0	0	0	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	38	-	-	143
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.22	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.318	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	1034	0	0	910
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	1030	-	-	908
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	-	-	-	-	908
HCM Lane V/C Ratio	-	-	-	-	0.023
HCM Control Delay (s)	0	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	27	34	162	0	0	0
Future Volume (Veh/h)	27	34	162	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	27	34	162	0	0	0
Pedestrians		2	2		2	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	164				254	166
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	164				254	166
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1427				719	877

Direction, Lane #	EB 1	WB 1
Volume Total	61	162
Volume Left	27	0
Volume Right	0	0
cSH	1427	1700
Volume to Capacity	0.02	0.10
Queue Length 95th (ft)	1	0
Control Delay (s)	3.4	0.0
Lane LOS	A	
Approach Delay (s)	3.4	0.0
Approach LOS		

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	26.1%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	0	0	0	0	64
Future Vol, veh/h	10	0	0	0	0	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	0	0	0	0	64

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	21	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	20	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	996	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1622	-	-	-	990	1084
Mov Cap-2 Maneuver	-	-	-	-	990	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1003	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	1084
HCM Lane V/C Ratio	0.006	-	-	-	0.059
HCM Control Delay (s)	7.2	-	-	-	8.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Build+ (2023)

(2023 With Project + Potential Industrial Park)

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (veh/h)	61	145	384	135	172	244	355	50	193	1246	146	40
Future Volume (veh/h)	61	145	384	135	172	244	355	50	193	1246	146	40
Initial Q (Qb), veh		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	
Parking Bus, Adj		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		
Adj Sat Flow, veh/h/ln		1796	1648	1796	1796	1648	1796		1796	1841	1796	
Adj Flow Rate, veh/h		145	384	135	172	244	355		193	1246	146	
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Percent Heavy Veh, %		7	17	7	7	17	7		7	4	7	
Cap, veh/h		208	700	339	236	1043	352		261	1653	500	
Arrive On Green		0.06	0.22	0.22	0.07	0.23	0.23		0.08	0.33	0.33	
Sat Flow, veh/h		3319	3131	1518	3319	4499	1518		3319	5025	1519	
Grp Volume(v), veh/h		145	384	135	172	244	355		193	1246	146	
Grp Sat Flow(s),veh/h/ln		1659	1566	1518	1659	1500	1518		1659	1675	1519	
Q Serve(g_s), s		4.5	11.3	7.9	5.3	4.6	24.2		5.9	23.1	7.4	
Cycle Q Clear(g_c), s		4.5	11.3	7.9	5.3	4.6	24.2		5.9	23.1	7.4	
Prop In Lane		1.00		1.00	1.00		1.00		1.00		1.00	
Lane Grp Cap(c), veh/h		208	700	339	236	1043	352		261	1653	500	
V/C Ratio(X)		0.70	0.55	0.40	0.73	0.23	1.01		0.74	0.75	0.29	
Avail Cap(c_a), veh/h		334	735	356	324	1043	352		410	1709	517	
HCM Platoon Ratio		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	
Uniform Delay (d), s/veh		47.9	35.9	34.5	47.5	32.5	40.1		47.0	31.2	26.0	
Incr Delay (d2), s/veh		4.2	0.8	0.8	5.2	0.1	50.1		4.1	1.9	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	
%ile BackOfQ(95%),veh/ln		3.4	7.6	5.2	4.1	2.9	19.6		4.5	14.0	4.7	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		52.1	36.6	35.3	52.7	32.7	90.1		51.1	33.1	26.3	
LnGrp LOS		D	D	D	D	C	F		D	C	C	
Approach Vol, veh/h			664			771				1585		
Approach Delay, s/veh			39.7			63.6				34.7		
Approach LOS			D			E				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	40.3	12.9	29.1	13.7	48.6	12.0	30.0
Change Period (Y+Rc), s	5.5	* 6	5.5	* 5.8	5.5	6.0	5.5	5.8
Max Green Setting (Gmax), s	17.5	* 36	10.2	* 25	12.9	39.6	10.5	24.2
Max Q Clear Time (g_c+I1), s	16.2	25.1	7.3	13.3	7.9	20.3	6.5	26.2
Green Ext Time (p_c), s	0.3	9.2	0.2	4.4	0.3	15.5	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	461	1150	145
Future Volume (veh/h)	461	1150	145
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1796	1841	1796
Adj Flow Rate, veh/h	461	1150	145
Peak Hour Factor	1.00	1.00	1.00
Percent Heavy Veh, %	7	4	7
Cap, veh/h	524	2051	620
Arrive On Green	0.16	0.41	0.41
Sat Flow, veh/h	3319	5025	1520
Grp Volume(v), veh/h	461	1150	145
Grp Sat Flow(s),veh/h/ln	1659	1675	1520
Q Serve(g_s), s	14.2	18.3	6.5
Cycle Q Clear(g_c), s	14.2	18.3	6.5
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	524	2051	620
V/C Ratio(X)	0.88	0.56	0.23
Avail Cap(c_a), veh/h	557	2051	620
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	23.7	20.2
Incr Delay (d2), s/veh	14.4	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.8	11.1	4.0
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	57.4	24.0	20.4
LnGrp LOS	E	C	C
Approach Vol, veh/h		1756	
Approach Delay, s/veh		32.5	
Approach LOS		C	
Timer - Assigned Phs			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	179	52	269	7	16	88	6	226	1463	15	85	1039
Future Volume (veh/h)	179	52	269	7	16	88	6	226	1463	15	85	1039
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99		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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1841	1870	1870	1841
Adj Flow Rate, veh/h	179	52	269	7	16	88		226	1463	15	85	1039
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	4	2	2	4
Cap, veh/h	301	353	525	10	25	139		274	2274	23	109	2080
Arrive On Green	0.09	0.19	0.19	0.01	0.10	0.10		0.08	0.44	0.44	0.06	0.41
Sat Flow, veh/h	3456	1870	2781	1781	248	1366		3456	5129	53	1781	5025
Grp Volume(v), veh/h	179	52	269	7	0	104		226	956	522	85	1039
Grp Sat Flow(s),veh/h/ln	1728	1870	1390	1781	0	1615		1728	1675	1831	1781	1675
Q Serve(g_s), s	3.5	1.6	6.0	0.3	0.0	4.3		4.5	15.4	15.4	3.3	10.6
Cycle Q Clear(g_c), s	3.5	1.6	6.0	0.3	0.0	4.3		4.5	15.4	15.4	3.3	10.6
Prop In Lane	1.00		1.00	1.00		0.85		1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	301	353	525	10	0	164		274	1485	812	109	2080
V/C Ratio(X)	0.59	0.15	0.51	0.72	0.00	0.64		0.83	0.64	0.64	0.78	0.50
Avail Cap(c_a), veh/h	1020	1263	1878	113	0	684		274	1549	847	172	2367
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
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	23.5	25.3	34.5	0.0	30.0		31.5	15.1	15.1	32.1	15.0
Incr Delay (d2), s/veh	1.9	0.2	0.8	67.2	0.0	4.0		18.3	0.9	1.6	11.1	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
%ile BackOfQ(95%),veh/ln	2.5	1.2	3.5	0.5	0.0	3.2		4.3	8.6	9.5	2.9	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	23.7	26.1	101.6	0.0	34.0		49.8	15.9	16.6	43.3	15.2
LnGrp LOS	C	C	C	F	A	C		D	B	B	D	B
Approach Vol, veh/h		500			111				1704			1389
Approach Delay, s/veh		28.1			38.3				20.6			16.8
Approach LOS		C			D				C			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	36.3	5.5	18.7	11.0	34.2	11.5	12.6
Change Period (Y+Rc), s	* 4.7	5.5	* 5.1	* 5.6	5.5	* 5.5	5.5	5.6
Max Green Setting (Gmax), s	* 6.7	32.1	* 4.4	* 47	5.5	* 33	20.5	29.4
Max Q Clear Time (g_c+I1), s	5.3	17.4	2.3	8.0	6.5	12.6	5.5	6.3
Green Ext Time (p_c), s	0.0	13.4	0.0	1.8	0.0	15.3	0.6	0.3

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	265
Future Volume (veh/h)	265
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	265
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	655
Arrive On Green	0.41
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	265
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	8.2
Cycle Q Clear(g_c), s	8.2
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	655
V/C Ratio(X)	0.40
Avail Cap(c_a), veh/h	745
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	14.3
Incr Delay (d2), s/veh	0.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	4.8
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	14.7
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	34	3	1	56	4	102	3	7	1589	110	207	887
Future Volume (veh/h)	34	3	1	56	4	102	3	7	1589	110	207	887
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99		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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1841	1870	1870	1841
Adj Flow Rate, veh/h	36	0	1	59	0	102		7	1589	110	207	887
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	4	2	2	4
Cap, veh/h	92	0	40	333	0	147		10	2258	156	249	2939
Arrive On Green	0.03	0.00	0.03	0.09	0.00	0.09		0.01	0.47	0.47	0.14	0.60
Sat Flow, veh/h	3563	0	1561	3563	0	1575		1781	4798	332	1781	4867
Grp Volume(v), veh/h	36	0	1	59	0	102		7	1109	590	207	610
Grp Sat Flow(s),veh/h/ln	1781	0	1561	1781	0	1575		1781	1675	1780	1781	1675
Q Serve(g_s), s	0.8	0.0	0.0	1.2	0.0	4.8		0.3	20.2	20.2	8.7	6.8
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.2	0.0	4.8		0.3	20.2	20.2	8.7	6.8
Prop In Lane	1.00		1.00	1.00		1.00		1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	92	0	40	333	0	147		10	1576	838	249	2023
V/C Ratio(X)	0.39	0.00	0.02	0.18	0.00	0.69		0.73	0.70	0.70	0.83	0.30
Avail Cap(c_a), veh/h	949	0	416	833	0	368		109	1610	856	317	2023
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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	0.0	36.5	32.2	0.0	33.8		38.2	16.1	16.1	32.2	7.4
Incr Delay (d2), s/veh	2.7	0.0	0.2	0.3	0.0	5.7		68.5	1.4	2.6	13.7	0.1
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
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.0	0.9	0.0	3.6		0.6	11.0	11.9	7.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	36.8	32.4	0.0	39.6		106.7	17.5	18.7	45.9	7.5
LnGrp LOS	D	A	D	C	A	D		F	B	B	D	A
Approach Vol, veh/h		37			161				1706			1144
Approach Delay, s/veh		39.5			36.9				18.3			14.4
Approach LOS		D			D				B			B

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.5	41.3		7.5	5.2	51.6		12.7				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	* 4.8	5.1		5.5				
Max Green Setting (Gmax), s	* 14	37.0		20.5	* 4.7	45.9		18.0				
Max Q Clear Time (g_c+I1), s	10.7	22.2		2.8	2.3	8.8		6.8				
Green Ext Time (p_c), s	0.2	14.0		0.1	0.0	20.7		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		18.1	
HCM 6th LOS		B	

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	50
Future Volume (veh/h)	50
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	50
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	165
Arrive On Green	0.60
Sat Flow, veh/h	274
Grp Volume(v), veh/h	327
Grp Sat Flow(s),veh/h/ln	1791
Q Serve(g_s), s	6.8
Cycle Q Clear(g_c), s	6.8
Prop In Lane	0.15
Lane Grp Cap(c), veh/h	1081
V/C Ratio(X)	0.30
Avail Cap(c_a), veh/h	1081
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	7.4
Incr Delay (d2), s/veh	0.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	3.6
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	7.6
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	46	1	0	24	0	7	1	13	1715	73	22	7
Future Volume (veh/h)	46	1	0	24	0	7	1	13	1715	73	22	7
Initial Q (Qb), veh	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
Parking Bus, Adj	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			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870		1870
Adj Flow Rate, veh/h	46	1	0	24	0	7		13	1715	73		7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2		2
Cap, veh/h	82	2	74	61	0	54		29	2911	124		16
Arrive On Green	0.05	0.05	0.00	0.03	0.00	0.03		0.02	0.58	0.58		0.01
Sat Flow, veh/h	1745	38	1585	1781	0	1585		1781	5022	214		1781
Grp Volume(v), veh/h	47	0	0	24	0	7		13	1162	626		7
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1781	0	1585		1781	1702	1832		1781
Q Serve(g_s), s	1.4	0.0	0.0	0.7	0.0	0.2		0.4	11.9	11.9		0.2
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.7	0.0	0.2		0.4	11.9	11.9		0.2
Prop In Lane	0.98		1.00	1.00		1.00		1.00		0.12		1.00
Lane Grp Cap(c), veh/h	83	0	74	61	0	54		29	1973	1062		16
V/C Ratio(X)	0.56	0.00	0.00	0.39	0.00	0.13		0.45	0.59	0.59		0.43
Avail Cap(c_a), veh/h	625	0	555	624	0	555		180	2966	1596		206
HCM Platoon Ratio	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	0.00	0.00	1.00	0.00	1.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	25.4	0.0	0.0	25.8	0.0	25.5		26.6	7.3	7.3		26.9
Incr Delay (d2), s/veh	5.9	0.0	0.0	4.0	0.0	1.1		10.3	0.3	0.5		16.5
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
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.0	0.6	0.0	0.2		0.4	5.7	6.3		0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	0.0	0.0	29.8	0.0	26.6		36.8	7.6	7.8		43.4
LnGrp LOS	C	A	A	C	A	C		D	A	A		D
Approach Vol, veh/h		47			31				1801			
Approach Delay, s/veh		31.3			29.1				7.9			
Approach LOS		C			C				A			

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	36.1		7.0	5.4	35.7		6.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.3	47.5		19.1	5.5	48.3		19.1				
Max Q Clear Time (g_c+I1), s	2.2	13.9		3.4	2.4	7.3		2.7				
Green Ext Time (p_c), s	0.0	17.7		0.1	0.0	7.9		0.1				

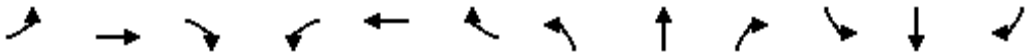
Intersection Summary		
HCM 6th Ctrl Delay	8.0	
HCM 6th LOS	A	

Notes

User approved ignoring U-Turning movement.



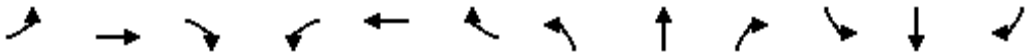
Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	889	71
Future Volume (veh/h)	889	71
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	889	71
Peak Hour Factor	1.00	1.00
Percent Heavy Veh, %	2	2
Cap, veh/h	2760	220
Arrive On Green	0.57	0.57
Sat Flow, veh/h	4821	384
Grp Volume(v), veh/h	627	333
Grp Sat Flow(s),veh/h/ln	1702	1801
Q Serve(g_s), s	5.3	5.3
Cycle Q Clear(g_c), s	5.3	5.3
Prop In Lane		0.21
Lane Grp Cap(c), veh/h	1948	1031
V/C Ratio(X)	0.32	0.32
Avail Cap(c_a), veh/h	3016	1596
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	6.1	6.1
Incr Delay (d2), s/veh	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	2.7
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	6.2	6.3
LnGrp LOS	A	A
Approach Vol, veh/h	967	
Approach Delay, s/veh	6.5	
Approach LOS	A	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	761	29	4	582	1	13	0	18	0	0	1
Future Volume (veh/h)	0	761	29	4	582	1	13	0	18	0	0	1
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	0.98		0.99	1.00		0.99
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	1648	1870	1870	1648	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	761	29	4	582	1	13	0	18	0	0	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	17	2	2	17	2	2	2	2	2	2	2
Cap, veh/h	4	1881	72	6	2350	4	197	0	49	0	0	49
Arrive On Green	0.00	0.61	0.61	0.00	0.73	0.73	0.03	0.00	0.03	0.00	0.00	0.03
Sat Flow, veh/h	1781	3075	117	1781	3207	6	1389	0	1570	0	0	1570
Grp Volume(v), veh/h	0	387	403	4	284	299	13	0	18	0	0	1
Grp Sat Flow(s),veh/h/ln	1781	1566	1627	1781	1566	1647	1389	0	1570	0	0	1570
Q Serve(g_s), s	0.0	6.0	6.0	0.1	2.8	2.8	0.4	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.0	6.0	0.1	2.8	2.8	0.5	0.0	0.5	0.0	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	4	958	995	6	1147	1207	197	0	49	0	0	49
V/C Ratio(X)	0.00	0.40	0.40	0.69	0.25	0.25	0.07	0.00	0.37	0.00	0.00	0.02
Avail Cap(c_a), veh/h	157	2031	2110	248	2112	2222	943	0	892	0	0	892
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.7	4.7	23.2	2.0	2.0	22.1	0.0	22.1	0.0	0.0	21.9
Incr Delay (d2), s/veh	0.0	0.3	0.3	90.9	0.1	0.1	0.1	0.0	4.5	0.0	0.0	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(95%),veh/ln	0.0	1.5	1.5	0.3	0.1	0.1	0.2	0.0	0.4	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.9	4.9	114.2	2.1	2.1	22.3	0.0	26.6	0.0	0.0	22.1
LnGrp LOS	A	A	A	F	A	A	C	A	C	A	A	C
Approach Vol, veh/h		790			587			31			1	
Approach Delay, s/veh		4.9			2.9			24.8			22.1	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	7.0	5.7	34.0	7.0	0.0	39.7
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	26.5	6.5	60.5	26.5	4.1	62.9
Max Q Clear Time (g_c+I1), s	2.5	2.1	8.0	2.0	0.0	4.8
Green Ext Time (p_c), s	0.1	0.0	20.6	0.0	0.0	14.1

Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	390	224	19	360	31	147	70	21	15	15	24
Future Volume (veh/h)	81	390	224	19	360	31	147	70	21	15	15	24
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		0.99
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	1648	1870	1870	1648	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	390	224	19	360	31	147	70	21	15	15	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	17	2	2	17	2	2	2	2	2	2	2
Cap, veh/h	105	997	503	25	799	68	242	187	56	69	25	40
Arrive On Green	0.06	0.32	0.32	0.01	0.27	0.27	0.14	0.14	0.14	0.04	0.04	0.04
Sat Flow, veh/h	1781	3131	1580	1781	2918	250	1781	1380	414	1781	644	1030
Grp Volume(v), veh/h	81	390	224	19	192	199	147	0	91	15	0	39
Grp Sat Flow(s),veh/h/ln	1781	1566	1580	1781	1566	1602	1781	0	1794	1781	0	1674
Q Serve(g_s), s	2.0	4.3	5.0	0.5	4.5	4.6	3.5	0.0	2.1	0.4	0.0	1.0
Cycle Q Clear(g_c), s	2.0	4.3	5.0	0.5	4.5	4.6	3.5	0.0	2.1	0.4	0.0	1.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.23	1.00		0.62
Lane Grp Cap(c), veh/h	105	997	503	25	429	438	242	0	243	69	0	65
V/C Ratio(X)	0.77	0.39	0.45	0.76	0.45	0.45	0.61	0.00	0.37	0.22	0.00	0.60
Avail Cap(c_a), veh/h	579	2071	1045	299	790	808	1258	0	1266	779	0	732
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	11.8	12.1	21.9	13.4	13.4	18.2	0.0	17.6	20.8	0.0	21.1
Incr Delay (d2), s/veh	11.4	0.3	0.6	36.1	0.7	0.7	2.5	0.0	1.0	1.6	0.0	8.6
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(95%),veh/ln	1.8	2.0	2.5	0.8	2.3	2.4	2.5	0.0	1.4	0.3	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	12.1	12.7	58.0	14.1	14.2	20.6	0.0	18.5	22.3	0.0	29.7
LnGrp LOS	C	B	B	E	B	B	C	A	B	C	A	C
Approach Vol, veh/h		695			410			238			54	
Approach Delay, s/veh		14.6			16.2			19.8			27.7	
Approach LOS		B			B			B			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.6	6.1	19.7		7.2	8.1	17.7				
Change Period (Y+Rc), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		31.5	7.5	29.5		19.5	14.5	22.5				
Max Q Clear Time (g_c+I1), s		5.5	2.5	7.0		3.0	4.0	6.6				
Green Ext Time (p_c), s		0.8	0.0	7.1		0.1	0.1	5.1				

Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	117	35	109	219	76	22
Future Vol, veh/h	117	35	109	219	76	22
Conflicting Peds, #/hr	2	2	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	117	35	109	219	76	22

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	397	223	0	0	330	0
Stage 1	221	-	-	-	-	-
Stage 2	176	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	608	817	-	-	1229	-
Stage 1	816	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	567	814	-	-	1227	-
Mov Cap-2 Maneuver	567	-	-	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	6.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	610	1227	-
HCM Lane V/C Ratio	-	-	0.249	0.062	-
HCM Control Delay (s)	-	-	12.8	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.2	-

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	251	38	3	126	0	15	32	7	10	46	28
Future Vol, veh/h	13	251	38	3	126	0	15	32	7	10	46	28
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	251	38	3	126	0	15	32	7	10	46	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	213	153	64	295	164	40	76	0	0	41	0	0
Stage 1	82	82	-	68	68	-	-	-	-	-	-	-
Stage 2	131	71	-	227	96	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	744	739	1000	657	729	1031	1523	-	-	1568	-	-
Stage 1	926	827	-	942	838	-	-	-	-	-	-	-
Stage 2	873	836	-	776	815	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	632	723	996	454	714	1027	1520	-	-	1565	-	-
Mov Cap-2 Maneuver	632	723	-	454	714	-	-	-	-	-	-	-
Stage 1	915	820	-	931	828	-	-	-	-	-	-	-
Stage 2	731	826	-	513	808	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	11.2	2.1	0.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1520	-	-	744	705	1565	-	-
HCM Lane V/C Ratio	0.01	-	-	0.406	0.183	0.006	-	-
HCM Control Delay (s)	7.4	0	-	13.1	11.2	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	2	0.7	0	-	-

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	0	133	105	32	161	27	8
Future Volume (veh/h)	0	133	105	32	161	27	8
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1648	1870	1870	1648	1870	1870
Adj Flow Rate, veh/h		133	105	32	161	27	8
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		17	2	2	17	2	2
Cap, veh/h		768	387	83	1579	90	80
Arrive On Green		0.25	0.25	0.02	0.50	0.03	0.03
Sat Flow, veh/h		3214	1579	3456	3214	3456	1585
Grp Volume(v), veh/h		133	105	32	161	27	8
Grp Sat Flow(s),veh/h/ln		1566	1579	1728	1566	1728	1585
Q Serve(g_s), s		0.8	1.3	0.2	0.6	0.2	0.1
Cycle Q Clear(g_c), s		0.8	1.3	0.2	0.6	0.2	0.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		768	387	83	1579	90	80
V/C Ratio(X)		0.17	0.27	0.38	0.10	0.30	0.10
Avail Cap(c_a), veh/h		8490	4280	738	8490	3689	1730
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		7.0	7.1	11.3	3.0	11.2	10.6
Incr Delay (d2), s/veh		0.1	0.4	2.9	0.0	1.8	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.2	0.3	0.1	0.0	0.1	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		7.1	7.5	14.1	3.1	13.0	11.2
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		238			193	35	
Approach Delay, s/veh		7.3			4.9	12.6	
Approach LOS		A			A	B	

Timer - Assigned Phs	2	3	4				8
Phs Duration (G+Y+Rc), s	6.1	6.1	11.2				17.3
Change Period (Y+Rc), s	5.5	5.5	5.5				5.5
Max Green Setting (Gmax), s	25.0	5.0	63.5				63.5
Max Q Clear Time (g_c+I1), s	2.2	2.2	3.3				2.6
Green Ext Time (p_c), s	0.1	0.0	2.8				3.4

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	0	24	0	0	0	8	11	0	0	107	30
Future Vol, veh/h	24	0	24	0	0	0	8	11	0	0	107	30
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	24	0	0	0	8	11	0	0	107	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	148	153	73	85	168	10	139	0	0	13	0	0
Stage 1	124	124	-	29	29	-	-	-	-	-	-	-
Stage 2	24	29	-	56	139	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	806	738	974	892	724	1069	1442	-	-	1604	-	-
Stage 1	867	792	-	984	870	-	-	-	-	-	-	-
Stage 2	991	870	-	949	781	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	800	731	970	863	717	1065	1439	-	-	1601	-	-
Mov Cap-2 Maneuver	800	731	-	863	717	-	-	-	-	-	-	-
Stage 1	861	790	-	977	863	-	-	-	-	-	-	-
Stage 2	984	863	-	924	779	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	0	3.2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1439	-	-	800	970	-	-	1601	-	-
HCM Lane V/C Ratio	0.006	-	-	0.03	0.025	-	-	-	-	-
HCM Control Delay (s)	7.5	-	-	9.6	8.8	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Vol, veh/h	24	0	24	0	0	0	8	11	0	0	0	107
Future Vol, veh/h	24	0	24	0	0	0	8	11	0	0	0	107
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	24	0	0	0	8	11	0	0	0	107
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	7.7	0	7.7	8.1
HCM LOS	A	-	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	100%	100%	78%
Vol Right, %	0%	0%	0%	100%	0%	0%	0%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	11	24	24	0	0	0	137
LT Vol	8	0	24	0	0	0	0	0
Through Vol	0	11	0	0	0	0	0	107
RT Vol	0	0	0	24	0	0	0	30
Lane Flow Rate	8	11	24	24	0	0	0	137
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.012	0.014	0.036	0.028	0	0	0	0.17
Departure Headway (Hd)	5.186	4.685	5.411	4.208	4.957	4.957	4.626	4.472
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	685	757	666	856	0	0	0	799
Service Time	2.959	2.457	3.111	1.908	2.658	2.658	2.374	2.22
HCM Lane V/C Ratio	0.012	0.015	0.036	0.028	0	0	0	0.171
HCM Control Delay	8	7.5	8.3	7	7.7	7.7	7.4	8.1
HCM Lane LOS	A	A	A	A	N	N	N	A
HCM 95th-tile Q	0	0	0.1	0.1	0	0	0	0.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBR
Lane Configurations	
Traffic Vol, veh/h	30
Future Vol, veh/h	30
Peak Hour Factor	1.00
Heavy Vehicles, %	2
Mvmt Flow	30
Number of Lanes	0

Approach	
Opposing Approach	
Opposing Lanes	
Conflicting Approach Left	
Conflicting Lanes Left	
Conflicting Approach Right	
Conflicting Lanes Right	
HCM Control Delay	
HCM LOS	

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	0	0	0	0	97
Future Vol, veh/h	19	0	0	0	0	97
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	0	0	0	0	97

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	53	53	99	0	-	0
Stage 1	51	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	949	1003	1492	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	945	999	1489	-	-	-
Mov Cap-2 Maneuver	945	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1489	-	945	-	-	-
HCM Lane V/C Ratio	-	-	0.02	-	-	-
HCM Control Delay (s)	0	-	8.9	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	0	0	0	0	97
Future Vol, veh/h	19	0	0	0	0	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	0	0	0	0	97
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	8.1	0	7
HCM LOS	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	19	0	0	97
LT Vol	0	0	19	0	0	0
Through Vol	0	0	0	0	0	0
RT Vol	0	0	0	0	0	97
Lane Flow Rate	0	0	19	0	0	97
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0	0	0.027	0	0	0.104
Departure Headway (Hd)	4.615	4.615	5.205	4.704	4.568	3.867
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	687	0	0	927
Service Time	2.346	2.346	2.941	2.44	2.287	1.587
HCM Lane V/C Ratio	0	0	0.028	0	0	0.105
HCM Control Delay	7.3	7.3	8.1	7.4	7.3	7
HCM Lane LOS	N	N	A	N	N	A
HCM 95th-tile Q	0	0	0.1	0	0	0.3

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	8	0	12	24	0
Future Vol, veh/h	30	8	0	12	24	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	30	8	0	12	24	0
Number of Lanes	1	0	0	1	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.2	6.4	7.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	79%	100%
Vol Thru, %	0%	0%	0%
Vol Right, %	100%	21%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	12	38	24
LT Vol	0	30	24
Through Vol	0	0	0
RT Vol	12	8	0
Lane Flow Rate	12	38	24
Geometry Grp	1	1	1
Degree of Util (X)	0.011	0.042	0.028
Departure Headway (Hd)	3.384	3.994	4.211
Convergence, Y/N	Yes	Yes	Yes
Cap	1057	899	852
Service Time	1.406	2.008	2.226
HCM Lane V/C Ratio	0.011	0.042	0.028
HCM Control Delay	6.4	7.2	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	36	0	0	38	0	12
Future Vol, veh/h	36	0	0	38	0	12
Conflicting Peds, #/hr	0	2	2	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	0
Mvmt Flow	36	0	0	38	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	40
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	1037
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	1033
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1033	-	-	-
HCM Lane V/C Ratio	0.012	-	-	-
HCM Control Delay (s)	8.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	19	109	22
Future Vol, veh/h	0	5	0	19	109	22
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	5	0	19	109	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	70	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	985	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	981	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	981	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s)	-	8.7	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	19	92	22
Future Vol, veh/h	0	5	0	19	92	22
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	5	0	19	92	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	61	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	998	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	994	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	994	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s)	-	8.6	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-

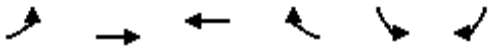
Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	17	4	0	97	0	0	0	2	0	0	36
Future Vol, veh/h	0	17	4	0	97	0	0	0	2	0	0	36
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	0
Mvmt Flow	0	17	4	0	97	0	0	0	2	0	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	23	-	-	99
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.22	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.318	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	1054	0	0	962
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	1050	-	-	960
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.4	8.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	1050	-	-	-	960
HCM Lane V/C Ratio	0.002	-	-	-	0.038
HCM Control Delay (s)	8.4	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	211	122	0	0	0
Future Volume (Veh/h)	36	211	122	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	36	211	122	0	0	0
Pedestrians		2	2		2	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	124				409	126
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	124				409	126
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1475				583	923

Direction, Lane #	EB 1	WB 1
Volume Total	247	122
Volume Left	36	0
Volume Right	0	0
cSH	1475	1700
Volume to Capacity	0.02	0.07
Queue Length 95th (ft)	2	0
Control Delay (s)	1.3	0.0
Lane LOS	A	
Approach Delay (s)	1.3	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	81	0	0	0	0	31
Future Vol, veh/h	81	0	0	0	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	0	0	0	0	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	163	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	162	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	828	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	867	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	787	1084
Mov Cap-2 Maneuver	-	-	-	-	787	-
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	867	-

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	1084
HCM Lane V/C Ratio	0.05	-	-	-	0.029
HCM Control Delay (s)	7.3	-	-	-	8.4
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (veh/h)	26	152	356	159	3	281	533	658	75	265	1155	213
Future Volume (veh/h)	26	152	356	159	3	281	533	658	75	265	1155	213
Initial Q (Qb), veh		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
Parking Bus, Adj		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	
Adj Sat Flow, veh/h/ln		1826	1767	1826		1826	1767	1826		1826	1856	1826
Adj Flow Rate, veh/h		152	356	159		281	533	658		265	1155	213
Peak Hour Factor		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Percent Heavy Veh, %		5	9	5		5	9	5		5	3	5
Cap, veh/h		207	843	388		346	1410	451		323	1462	446
Arrive On Green		0.06	0.25	0.25		0.10	0.29	0.29		0.10	0.29	0.29
Sat Flow, veh/h		3374	3357	1544		3374	4823	1544		3374	5066	1544
Grp Volume(v), veh/h		152	356	159		281	533	658		265	1155	213
Grp Sat Flow(s),veh/h/ln		1687	1678	1544		1687	1608	1544		1687	1689	1544
Q Serve(g_s), s		5.2	10.4	10.1		9.5	10.3	34.2		9.0	24.6	13.3
Cycle Q Clear(g_c), s		5.2	10.4	10.1		9.5	10.3	34.2		9.0	24.6	13.3
Prop In Lane		1.00		1.00		1.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h		207	843	388		346	1410	451		323	1462	446
V/C Ratio(X)		0.73	0.42	0.41		0.81	0.38	1.46		0.82	0.79	0.48
Avail Cap(c_a), veh/h		245	843	388		458	1410	451		360	1494	455
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		54.0	36.7	36.6		51.4	32.9	41.4		51.9	38.4	34.3
Incr Delay (d2), s/veh		8.9	0.3	0.7		8.1	0.2	218.1		12.9	2.9	0.8
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		4.3	7.5	6.8		7.7	7.0	60.8		7.7	15.4	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		62.9	37.0	37.3		59.5	33.1	259.5		64.9	41.2	35.1
LnGrp LOS		E	D	D		E	C	F		E	D	D
Approach Vol, veh/h			667				1472				1633	
Approach Delay, s/veh			43.0				139.3				44.3	
Approach LOS			D				F				D	

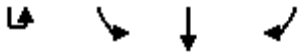
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.5	39.8	17.5	35.2	16.7	47.6	12.7	40.0
Change Period (Y+Rc), s	5.5	* 6	5.5	* 5.8	5.5	6.0	5.5	5.8
Max Green Setting (Gmax), s	20.5	* 35	15.9	* 27	12.5	42.0	8.5	34.2
Max Q Clear Time (g_c+I1), s	18.6	26.6	11.5	12.4	11.0	34.3	7.2	36.2
Green Ext Time (p_c), s	0.5	7.0	0.5	4.9	0.2	7.3	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	67.1
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (veh/h)	26	488	1521	187
Future Volume (veh/h)	26	488	1521	187
Initial Q (Qb), veh		0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00
Work Zone On Approach			No	
Adj Sat Flow, veh/h/ln		1826	1856	1826
Adj Flow Rate, veh/h		488	1521	187
Peak Hour Factor		1.00	1.00	1.00
Percent Heavy Veh, %		5	3	5
Cap, veh/h		549	1802	550
Arrive On Green		0.16	0.36	0.36
Sat Flow, veh/h		3374	5066	1545
Grp Volume(v), veh/h		488	1521	187
Grp Sat Flow(s),veh/h/ln		1687	1689	1545
Q Serve(g_s), s		16.6	32.3	10.4
Cycle Q Clear(g_c), s		16.6	32.3	10.4
Prop In Lane		1.00		1.00
Lane Grp Cap(c), veh/h		549	1802	550
V/C Ratio(X)		0.89	0.84	0.34
Avail Cap(c_a), veh/h		591	1818	554
HCM Platoon Ratio		1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00
Uniform Delay (d), s/veh		48.0	34.7	27.6
Incr Delay (d2), s/veh		14.7	3.8	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		12.5	19.2	6.8
Unsig. Movement Delay, s/veh				
LnGrp Delay(d),s/veh		62.7	38.5	28.0
LnGrp LOS		E	D	C
Approach Vol, veh/h			2196	
Approach Delay, s/veh			43.0	
Approach LOS			D	
Timer - Assigned Phs				

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (veh/h)	4	319	24	198	27	36	91	10	404	1287	5	5
Future Volume (veh/h)	4	319	24	198	27	36	91	10	404	1287	5	5
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		0.99		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	
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870		1870	1856	1870	
Adj Flow Rate, veh/h		319	24	198	27	36	91		404	1287	5	
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Percent Heavy Veh, %		2	2	2	2	2	2		2	3	2	
Cap, veh/h		423	400	595	33	49	125		401	2655	10	
Arrive On Green		0.12	0.21	0.21	0.02	0.11	0.11		0.12	0.51	0.51	
Sat Flow, veh/h		3456	1870	2782	1781	468	1182		3456	5209	20	
Grp Volume(v), veh/h		319	24	198	27	0	127		404	834	458	
Grp Sat Flow(s),veh/h/ln		1728	1870	1391	1781	0	1650		1728	1689	1852	
Q Serve(g_s), s		8.1	0.9	5.5	1.4	0.0	6.8		10.5	14.6	14.6	
Cycle Q Clear(g_c), s		8.1	0.9	5.5	1.4	0.0	6.8		10.5	14.6	14.6	
Prop In Lane		1.00		1.00	1.00		0.72		1.00		0.01	
Lane Grp Cap(c), veh/h		423	400	595	33	0	174		401	1722	944	
V/C Ratio(X)		0.75	0.06	0.33	0.83	0.00	0.73		1.01	0.48	0.48	
Avail Cap(c_a), veh/h		783	934	1389	120	0	536		401	1722	944	
HCM Platoon Ratio		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	0.00	1.00		1.00	1.00	1.00	
Uniform Delay (d), s/veh		38.4	28.3	30.1	44.3	0.0	39.2		40.0	14.4	14.4	
Incr Delay (d2), s/veh		2.8	0.1	0.3	37.9	0.0	5.7		47.0	0.2	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	
%ile BackOfQ(95%),veh/ln		6.1	0.7	3.2	1.7	0.0	5.3		11.2	8.5	9.2	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		41.2	28.4	30.4	82.2	0.0	44.9		87.0	14.7	14.8	
LnGrp LOS		D	C	C	F	A	D		F	B	B	
Approach Vol, veh/h			541			154				1696		
Approach Delay, s/veh			36.7			51.5				31.9		
Approach LOS			D			D				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	51.7	6.8	25.0	16.0	42.8	16.6	15.2
Change Period (Y+Rc), s	* 4.7	5.5	* 5.1	* 5.6	5.5	* 5.5	5.5	5.6
Max Green Setting (Gmax), s	* 14	35.3	* 6.1	* 45	10.5	* 38	20.5	29.4
Max Q Clear Time (g_c+I1), s	3.9	16.6	3.4	7.5	12.5	27.4	10.1	8.8
Green Ext Time (p_c), s	0.0	15.8	0.0	1.1	0.0	9.9	1.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	38	1634	311
Future Volume (veh/h)	38	1634	311
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1870	1856	1870
Adj Flow Rate, veh/h	38	1634	311
Peak Hour Factor	1.00	1.00	1.00
Percent Heavy Veh, %	2	3	2
Cap, veh/h	48	2086	652
Arrive On Green	0.03	0.41	0.41
Sat Flow, veh/h	1781	5066	1583
Grp Volume(v), veh/h	38	1634	311
Grp Sat Flow(s),veh/h/ln	1781	1689	1583
Q Serve(g_s), s	1.9	25.4	13.0
Cycle Q Clear(g_c), s	1.9	25.4	13.0
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	48	2086	652
V/C Ratio(X)	0.79	0.78	0.48
Avail Cap(c_a), veh/h	266	2110	659
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	23.1	19.5
Incr Delay (d2), s/veh	24.5	2.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	14.4	8.1
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	68.3	25.1	20.0
LnGrp LOS	E	C	C
Approach Vol, veh/h		1983	
Approach Delay, s/veh		25.1	
Approach LOS		C	
Timer - Assigned Phs			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (veh/h)	111	19	15	190	5	265	9	5	1128	68	45	88
Future Volume (veh/h)	111	19	15	190	5	265	9	5	1128	68	45	88
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0		0
Ped-Bike Adj(A_pbT)	1.00		0.99	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
Work Zone On Approach		No			No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1856	1870		1870
Adj Flow Rate, veh/h	125	0	15	194	0	265		5	1128	68		88
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Percent Heavy Veh, %	2	2	2	2	2	2		2	3	2		2
Cap, veh/h	217	0	95	663	0	294		7	2325	140		113
Arrive On Green	0.06	0.00	0.06	0.19	0.00	0.19		0.00	0.48	0.48		0.06
Sat Flow, veh/h	3563	0	1569	3563	0	1580		1781	4885	294		1781
Grp Volume(v), veh/h	125	0	15	194	0	265		5	780	416		88
Grp Sat Flow(s),veh/h/ln	1781	0	1569	1781	0	1580		1781	1689	1802		1781
Q Serve(g_s), s	3.3	0.0	0.9	4.6	0.0	16.0		0.3	15.3	15.3		4.7
Cycle Q Clear(g_c), s	3.3	0.0	0.9	4.6	0.0	16.0		0.3	15.3	15.3		4.7
Prop In Lane	1.00		1.00	1.00		1.00		1.00		0.16		1.00
Lane Grp Cap(c), veh/h	217	0	95	663	0	294		7	1607	858		113
V/C Ratio(X)	0.58	0.00	0.16	0.29	0.00	0.90		0.72	0.49	0.49		0.78
Avail Cap(c_a), veh/h	750	0	330	684	0	303		95	1654	882		225
HCM Platoon Ratio	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	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	44.5	0.0	43.4	34.1	0.0	38.8		48.5	17.4	17.4		44.9
Incr Delay (d2), s/veh	2.4	0.0	0.8	0.2	0.0	27.6		85.8	0.2	0.4		10.7
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
%ile BackOfQ(95%),veh/ln	2.7	0.0	0.6	3.5	0.0	13.0		0.5	9.2	9.8		4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	0.0	44.1	34.4	0.0	66.4		134.3	17.6	17.8		55.7
LnGrp LOS	D	A	D	C	A	E		F	B	B		E
Approach Vol, veh/h		140			459				1201			
Approach Delay, s/veh		46.7			52.9				18.2			
Approach LOS		D			D				B			

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	51.5		11.4	5.2	57.2		23.6				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	* 4.8	5.1		5.5				
Max Green Setting (Gmax), s	* 12	47.7		20.5	* 5.2	54.7		18.7				
Max Q Clear Time (g_c+I1), s	6.7	17.3		5.3	2.3	24.2		18.0				
Green Ext Time (p_c), s	0.1	22.5		0.4	0.0	27.8		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	23.8	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	1695	23
Future Volume (veh/h)	1695	23
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1856	1870
Adj Flow Rate, veh/h	1695	23
Peak Hour Factor	1.00	1.00
Percent Heavy Veh, %	3	2
Cap, veh/h	2754	37
Arrive On Green	0.53	0.53
Sat Flow, veh/h	5150	70
Grp Volume(v), veh/h	1111	607
Grp Sat Flow(s),veh/h/ln	1689	1843
Q Serve(g_s), s	22.2	22.2
Cycle Q Clear(g_c), s	22.2	22.2
Prop In Lane		0.04
Lane Grp Cap(c), veh/h	1806	985
V/C Ratio(X)	0.62	0.62
Avail Cap(c_a), veh/h	1896	1035
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	15.7	15.7
Incr Delay (d2), s/veh	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	13.2
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	16.3	16.7
LnGrp LOS	B	B
Approach Vol, veh/h	1806	
Approach Delay, s/veh	18.4	
Approach LOS	B	
Timer - Assigned Phs		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	183	3	43	56	0	9	10	916	5	34	3	1885
Future Volume (veh/h)	183	3	43	56	0	9	10	916	5	34	3	1885
Initial Q (Qb), veh	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	
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
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
Adj Flow Rate, veh/h	183	3	43	56	0	9	10	916	5		3	1885
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	239	4	216	89	0	79	22	2760	15		7	2712
Arrive On Green	0.14	0.14	0.14	0.05	0.00	0.05	0.01	0.53	0.53		0.00	0.52
Sat Flow, veh/h	1754	29	1585	1781	0	1585	1781	5241	29		1781	5206
Grp Volume(v), veh/h	186	0	43	56	0	9	10	595	326		3	1232
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1781	0	1585	1781	1702	1865		1781	1702
Q Serve(g_s), s	7.4	0.0	1.8	2.3	0.0	0.4	0.4	7.4	7.4		0.1	20.0
Cycle Q Clear(g_c), s	7.4	0.0	1.8	2.3	0.0	0.4	0.4	7.4	7.4		0.1	20.0
Prop In Lane	0.98		1.00	1.00		1.00	1.00		0.02		1.00	
Lane Grp Cap(c), veh/h	243	0	216	89	0	79	22	1793	982		7	1773
V/C Ratio(X)	0.77	0.00	0.20	0.63	0.00	0.11	0.45	0.33	0.33		0.42	0.70
Avail Cap(c_a), veh/h	439	0	390	439	0	390	133	2172	1190		148	2209
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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	30.6	0.0	28.2	34.2	0.0	33.4	36.0	10.0	10.0		36.5	13.2
Incr Delay (d2), s/veh	5.0	0.0	0.4	7.1	0.0	0.6	13.3	0.1	0.2		34.1	0.7
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
%ile BackOfQ(95%),veh/ln	6.1	0.0	1.2	2.0	0.0	0.3	0.5	4.4	4.9		0.2	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	0.0	28.6	41.4	0.0	34.0	49.4	10.1	10.2		70.7	13.9
LnGrp LOS	D	A	C	D	A	C	D	B	B		E	B
Approach Vol, veh/h		229			65			931				1909
Approach Delay, s/veh		34.3			40.3			10.5				14.2
Approach LOS		C			D			B				B

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	43.8		15.5	5.4	43.4		9.2				
Change Period (Y+Rc), s	* 4.7	5.1		5.5	4.5	5.1		5.5				
Max Green Setting (Gmax), s	* 6.1	46.9		18.1	5.5	47.7		18.1				
Max Q Clear Time (g_c+I1), s	2.1	9.4		9.4	2.4	22.0		4.3				
Green Ext Time (p_c), s	0.0	7.3		0.7	0.0	16.3		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

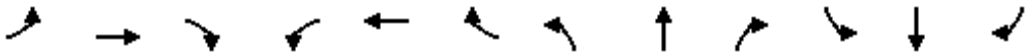
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	21
Future Volume (veh/h)	21
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	21
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	30
Arrive On Green	0.52
Sat Flow, veh/h	58
Grp Volume(v), veh/h	674
Grp Sat Flow(s),veh/h/ln	1860
Q Serve(g_s), s	20.0
Cycle Q Clear(g_c), s	20.0
Prop In Lane	0.03
Lane Grp Cap(c), veh/h	969
V/C Ratio(X)	0.70
Avail Cap(c_a), veh/h	1207
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	13.2
Incr Delay (d2), s/veh	1.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	12.2
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	14.5
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	650	19	13	994	0	68	0	23	1	0	4
Future Volume (veh/h)	3	650	19	13	994	0	68	0	23	1	0	4
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	0.99		0.99	0.99		0.99
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	1767	1870	1870	1767	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	650	19	13	994	0	68	0	23	1	0	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	9	2	2	9	2	2	2	2	2	2	2
Cap, veh/h	4	2144	63	17	2185	0	224	0	118	83	12	94
Arrive On Green	0.00	0.64	0.64	0.01	0.65	0.00	0.07	0.00	0.07	0.07	0.00	0.07
Sat Flow, veh/h	1781	3330	97	1781	3445	0	1401	0	1572	154	161	1261
Grp Volume(v), veh/h	3	327	342	13	994	0	68	0	23	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1678	1749	1781	1678	0	1401	0	1572	1576	0	0
Q Serve(g_s), s	0.1	5.2	5.3	0.4	8.9	0.0	2.6	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	5.2	5.3	0.4	8.9	0.0	2.8	0.0	0.8	0.2	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	4	1080	1126	17	2185	0	224	0	118	189	0	0
V/C Ratio(X)	0.69	0.30	0.30	0.75	0.45	0.00	0.30	0.00	0.20	0.03	0.00	0.00
Avail Cap(c_a), veh/h	191	1727	1800	220	3510	0	893	0	867	918	0	0
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	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.3	4.8	4.8	30.0	5.3	0.0	27.3	0.0	26.4	26.1	0.0	0.0
Incr Delay (d2), s/veh	111.2	0.2	0.2	47.4	0.1	0.0	0.8	0.0	0.8	0.1	0.0	0.0
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(95%),veh/ln	0.3	1.9	1.9	0.7	3.0	0.0	1.7	0.0	0.6	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	141.5	4.9	4.9	77.4	5.4	0.0	28.0	0.0	27.2	26.1	0.0	0.0
LnGrp LOS	F	A	A	E	A	A	C	A	C	C	A	A
Approach Vol, veh/h		672			1007			91			5	
Approach Delay, s/veh		5.6			6.3			27.8			26.1	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	6.1	44.6		10.0	5.6	45.0				
Change Period (Y+Rc), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		33.5	7.5	62.5		33.5	6.5	63.5				
Max Q Clear Time (g_c+I1), s		4.8	2.4	7.3		2.2	2.1	10.9				
Green Ext Time (p_c), s		0.3	0.0	16.6		0.0	0.0	28.6				

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	4	520	126	18	622	30	1	264	43	30	20	51
Future Volume (veh/h)	4	520	126	18	622	30	1	264	43	30	20	51
Initial Q (Qb), veh	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	
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
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1870	1767	1870	1870	1767	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	520	126	18	622	30		264	43	30	20	51
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	9	2	2	9	2		2	2	2	2	2
Cap, veh/h	6	1155	544	23	1153	56		345	199	139	145	76
Arrive On Green	0.00	0.34	0.34	0.01	0.35	0.35		0.19	0.19	0.19	0.08	0.08
Sat Flow, veh/h	1781	3357	1580	1781	3259	157		1781	1024	715	1781	934
Grp Volume(v), veh/h	4	520	126	18	320	332		264	0	73	20	0
Grp Sat Flow(s),veh/h/ln	1781	1678	1580	1781	1678	1738		1781	0	1739	1781	0
Q Serve(g_s), s	0.1	7.2	3.4	0.6	9.1	9.1		8.4	0.0	2.1	0.6	0.0
Cycle Q Clear(g_c), s	0.1	7.2	3.4	0.6	9.1	9.1		8.4	0.0	2.1	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.09		1.00		0.41	1.00	
Lane Grp Cap(c), veh/h	6	1155	544	23	594	615		345	0	337	145	0
V/C Ratio(X)	0.70	0.45	0.23	0.78	0.54	0.54		0.76	0.00	0.22	0.14	0.00
Avail Cap(c_a), veh/h	223	1711	806	253	884	915		1087	0	1061	670	0
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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.8	15.2	14.0	29.4	15.4	15.4		22.8	0.0	20.3	25.5	0.0
Incr Delay (d2), s/veh	92.5	0.3	0.2	41.9	0.8	0.7		3.5	0.0	0.3	0.4	0.0
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
%ile BackOfQ(95%),veh/ln	0.4	4.1	1.9	0.9	5.3	5.5		6.4	0.0	1.5	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.3	15.5	14.2	71.3	16.2	16.2		26.4	0.0	20.6	26.0	0.0
LnGrp LOS	F	B	B	E	B	B		C	A	C	C	A
Approach Vol, veh/h		650			670				337			114
Approach Delay, s/veh		15.9			17.7				25.1			31.1
Approach LOS		B			B				C			C

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	17.1	6.3	26.1	10.4	5.7	26.7
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	36.5	8.5	30.5	22.5	7.5	31.5
Max Q Clear Time (g_c+I1), s	10.4	2.6	9.2	5.2	2.1	11.1
Green Ext Time (p_c), s	1.1	0.0	8.8	0.3	0.0	10.0

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	43
Future Volume (veh/h)	43
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	43
Peak Hour Factor	1.00
Percent Heavy Veh, %	2
Cap, veh/h	64
Arrive On Green	0.08
Sat Flow, veh/h	788
Grp Volume(v), veh/h	94
Grp Sat Flow(s),veh/h/ln	1722
Q Serve(g_s), s	3.2
Cycle Q Clear(g_c), s	3.2
Prop In Lane	0.46
Lane Grp Cap(c), veh/h	140
V/C Ratio(X)	0.67
Avail Cap(c_a), veh/h	648
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	26.7
Incr Delay (d2), s/veh	5.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	2.6
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	32.2
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Intersection	
Int Delay, s/veh	8.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	320	70	55	123	24	128
Future Vol, veh/h	320	70	55	123	24	128
Conflicting Peds, #/hr	2	2	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	320	70	55	123	24	128

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	297	121	0	0	180	0
Stage 1	119	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	694	930	-	-	1396	-
Stage 1	906	-	-	-	-	-
Stage 2	853	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	678	926	-	-	1393	-
Mov Cap-2 Maneuver	678	-	-	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	835	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	712	1393	-
HCM Lane V/C Ratio	-	-	0.548	0.017	-
HCM Control Delay (s)	-	-	16	7.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	3.4	0.1	-

Intersection	
Int Delay, s/veh	11.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	14	115	23	6	371	9	15	67	3	4	58	8
Future Vol, veh/h	14	115	23	6	371	9	15	67	3	4	58	8
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	115	23	6	371	9	15	67	3	4	58	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	363	174	66	242	177	73	68	0	0	72	0	0
Stage 1	72	72	-	101	101	-	-	-	-	-	-	-
Stage 2	291	102	-	141	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	593	719	998	712	717	989	1533	-	-	1528	-	-
Stage 1	938	835	-	905	811	-	-	-	-	-	-	-
Stage 2	717	811	-	862	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	339	707	994	600	705	985	1530	-	-	1525	-	-
Mov Cap-2 Maneuver	339	707	-	600	705	-	-	-	-	-	-	-
Stage 1	927	831	-	894	801	-	-	-	-	-	-	-
Stage 2	377	801	-	722	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	16	1.3	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1530	-	-	669	708	1525	-	-
HCM Lane V/C Ratio	0.01	-	-	0.227	0.545	0.003	-	-
HCM Control Delay (s)	7.4	0	-	12	16	7.4	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	3.3	0	-	-

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	0	211	146	22	137	306	68
Future Volume (veh/h)	0	211	146	22	137	306	68
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1767	1870	1870	1767	1870	1870
Adj Flow Rate, veh/h		211	146	22	137	306	68
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		9	2	2	9	2	2
Cap, veh/h		935	440	58	1573	636	318
Arrive On Green		0.28	0.28	0.02	0.47	0.18	0.18
Sat Flow, veh/h		3445	1579	3456	3445	3456	1585
Grp Volume(v), veh/h		211	146	22	137	306	68
Grp Sat Flow(s),veh/h/ln		1678	1579	1728	1678	1728	1585
Q Serve(g_s), s		1.5	2.3	0.2	0.7	2.5	1.1
Cycle Q Clear(g_c), s		1.5	2.3	0.2	0.7	2.5	1.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		935	440	58	1573	636	318
V/C Ratio(X)		0.23	0.33	0.38	0.09	0.48	0.21
Avail Cap(c_a), veh/h		5564	2618	2346	7313	3219	1503
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		8.8	9.1	15.4	4.7	11.6	10.6
Incr Delay (d2), s/veh		0.1	0.4	4.1	0.0	0.6	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.6	0.9	0.2	0.2	1.2	0.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		8.9	9.5	19.5	4.7	12.1	10.9
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		357			159	374	
Approach Delay, s/veh		9.2			6.7	11.9	
Approach LOS		A			A	B	

Timer - Assigned Phs	2	3	4			8
Phs Duration (G+Y+Rc), s	11.3	6.0	14.3			20.3
Change Period (Y+Rc), s	5.5	5.5	5.5			5.5
Max Green Setting (Gmax), s	29.5	21.5	52.5			69.0
Max Q Clear Time (g_c+I1), s	4.5	2.2	4.3			2.7
Green Ext Time (p_c), s	1.5	0.0	4.4			2.9

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	283	0	16	4	0	14	27	60	7	35	28	68	36
Future Vol, veh/h	283	0	16	4	0	14	27	60	7	35	28	68	36
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	283	0	16	4	0	14	27	60	7	35	28	68	36

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	300	337	56	282	352	38	106	0	0	67	69	0	0
Stage 1	214	214	-	120	120	-	-	-	-	-	-	-	-
Stage 2	86	123	-	162	232	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	6.44	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.52	2.22	-	-
Pot Cap-1 Maneuver	630	583	999	648	571	1026	1483	-	-	1297	1530	-	-
Stage 1	768	724	-	872	796	-	-	-	-	-	-	-	-
Stage 2	912	793	-	824	711	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	589	544	995	605	533	1022	1480	-	-	1379	1379	-	-
Mov Cap-2 Maneuver	589	544	-	605	533	-	-	-	-	-	-	-	-
Stage 1	753	689	-	855	780	-	-	-	-	-	-	-	-
Stage 2	881	777	-	772	677	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.2	9.1	2.1	2.9
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1480	-	-	589	995	605	1022	1379	-	-
HCM Lane V/C Ratio	0.018	-	-	0.48	0.016	0.007	0.014	0.046	-	-
HCM Control Delay (s)	7.5	-	-	16.6	8.7	11	8.6	7.7	-	-
HCM Lane LOS	A	-	-	C	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.6	0	0	0	0.1	-	-

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Vol, veh/h	283	0	16	4	0	14	27	60	7	35	28	68
Future Vol, veh/h	283	0	16	4	0	14	27	60	7	35	28	68
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	283	0	16	4	0	14	27	60	7	35	28	68
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12.9	8	9.1	9.2
HCM LOS	B	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	90%	0%	0%	0%	0%	0%	65%
Vol Right, %	0%	10%	0%	100%	0%	100%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	67	283	16	4	14	63	104
LT Vol	27	0	283	0	4	0	63	0
Through Vol	0	60	0	0	0	0	0	68
RT Vol	0	7	0	16	0	14	0	36
Lane Flow Rate	27	67	283	16	4	14	63	104
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.046	0.104	0.451	0.02	0.007	0.019	0.106	0.153
Departure Headway (Hd)	6.143	5.565	5.742	4.537	6.085	4.874	6.054	5.307
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	580	641	625	784	584	727	590	673
Service Time	3.908	3.33	3.498	2.292	3.864	2.653	3.812	3.064
HCM Lane V/C Ratio	0.047	0.105	0.453	0.02	0.007	0.019	0.107	0.155
HCM Control Delay	9.2	9	13.2	7.4	8.9	7.7	9.5	9
HCM Lane LOS	A	A	B	A	A	A	A	A
HCM 95th-tile Q	0.1	0.3	2.3	0.1	0	0.1	0.4	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBR
Lane Configurations	
Traffic Vol, veh/h	36
Future Vol, veh/h	36
Peak Hour Factor	1.00
Heavy Vehicles, %	2
Mvmt Flow	36
Number of Lanes	0

Approach	
Opposing Approach	
Opposing Lanes	
Conflicting Approach Left	
Conflicting Lanes Left	
Conflicting Approach Right	
Conflicting Lanes Right	
HCM Control Delay	
HCM LOS	

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	94	0	0	0	0	155
Future Vol, veh/h	94	0	0	0	0	155
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	94	0	0	0	0	155

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	82	82	157	0	-	0
Stage 1	80	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	911	961	1420	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	907	957	1417	-	-	-
Mov Cap-2 Maneuver	907	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1417	-	907	-	-	-
HCM Lane V/C Ratio	-	-	0.104	-	-	-
HCM Control Delay (s)	0	-	9.4	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	94	0	0	0	0	155
Future Vol, veh/h	94	0	0	0	0	155
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	94	0	0	0	0	155
Number of Lanes	1	1	1	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9	0	7.7
HCM LOS	A	-	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	0%	0%
Vol Thru, %	100%	100%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	94	0	0	155
LT Vol	0	0	94	0	0	0
Through Vol	0	0	0	0	0	0
RT Vol	0	0	0	0	0	155
Lane Flow Rate	0	0	94	0	0	155
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0	0	0.139	0	0	0.177
Departure Headway (Hd)	4.92	4.92	5.308	4.807	4.809	4.107
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	0	670	0	0	879
Service Time	2.623	2.623	3.085	2.584	2.509	1.807
HCM Lane V/C Ratio	0	0	0.14	0	0	0.176
HCM Control Delay	7.6	7.6	9	7.6	7.5	7.7
HCM Lane LOS	N	N	A	N	N	A
HCM 95th-tile Q	0	0	0.5	0	0	0.6

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	27	0	141	16	0
Future Vol, veh/h	36	27	0	141	16	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	36	27	0	141	16	0
Number of Lanes	1	0	0	1	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.4	7	7.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	57%	100%
Vol Thru, %	0%	0%	0%
Vol Right, %	100%	43%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	141	63	16
LT Vol	0	36	16
Through Vol	0	0	0
RT Vol	141	27	0
Lane Flow Rate	141	63	16
Geometry Grp	1	1	1
Degree of Util (X)	0.134	0.07	0.019
Departure Headway (Hd)	3.422	4.027	4.352
Convergence, Y/N	Yes	Yes	Yes
Cap	1045	889	821
Service Time	1.454	2.054	2.388
HCM Lane V/C Ratio	0.135	0.071	0.019
HCM Control Delay	7	7.4	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.2	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	157	0	0	63	0	141
Future Vol, veh/h	157	0	0	63	0	141
Conflicting Peds, #/hr	0	2	2	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	0
Mvmt Flow	157	0	0	63	0	141

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	161
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	889
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	886
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	886	-	-	-
HCM Lane V/C Ratio	0.159	-	-	-
HCM Control Delay (s)	9.8	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	61	0	94	61	27
Future Vol, veh/h	0	61	0	94	61	27
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	61	0	94	61	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	48	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	1017	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1013	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	1013	-	-
HCM Lane V/C Ratio	-	0.06	-	-
HCM Control Delay (s)	-	8.8	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	61	0	94	95	27
Future Vol, veh/h	0	61	0	94	95	27
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	61	0	94	95	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	65	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	992	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	988	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	988	-	-
HCM Lane V/C Ratio	-	0.062	-	-
HCM Control Delay (s)	-	8.9	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

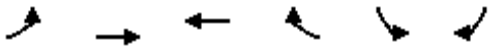
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	82	3	0	155	0	0	0	12	0	0	21
Future Vol, veh/h	0	82	3	0	155	0	0	0	12	0	0	21
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	0
Mvmt Flow	0	82	3	0	155	0	0	0	12	0	0	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	88	-	-	157
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.22	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.318	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	970	0	0	894
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	966	-	-	892
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.8	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	966	-	-	-	892
HCM Lane V/C Ratio	0.012	-	-	-	0.024
HCM Control Delay (s)	8.8	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	27	89	362	0	0	0
Future Volume (Veh/h)	27	89	362	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	27	89	362	0	0	0
Pedestrians		2	2		2	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	364				509	366
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	364				509	366
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1206				511	678

Direction, Lane #	EB 1	WB 1
Volume Total	116	362
Volume Left	27	0
Volume Right	0	0
cSH	1206	1700
Volume to Capacity	0.02	0.21
Queue Length 95th (ft)	2	0
Control Delay (s)	2.0	0.0
Lane LOS	A	
Approach Delay (s)	2.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	0	0	0	0	64
Future Vol, veh/h	10	0	0	0	0	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	0	0	0	0	64

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	21	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	20	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	996	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1622	-	-	-	990	1084
Mov Cap-2 Maneuver	-	-	-	-	990	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1003	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	1084
HCM Lane V/C Ratio	0.006	-	-	-	0.059
HCM Control Delay (s)	7.2	-	-	-	8.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Build+ (2023)

(2023 With Project + Potential Industrial Park)

White Rock Road at Sunrise Boulevard with Revised Westbound Lane Striping

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (veh/h)	61	145	384	135	172	244	355	50	193	1246	146	40
Future Volume (veh/h)	61	145	384	135	172	244	355	50	193	1246	146	40
Initial Q (Qb), veh		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	
Parking Bus, Adj		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		
Adj Sat Flow, veh/h/ln		1796	1648	1796	1796	1648	1796		1796	1841	1796	
Adj Flow Rate, veh/h		145	384	135	172	244	355		193	1246	146	
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Percent Heavy Veh, %		7	17	7	7	17	7		7	4	7	
Cap, veh/h		213	575	278	242	602	513		270	1676	507	
Arrive On Green		0.06	0.18	0.18	0.07	0.19	0.19		0.08	0.33	0.33	
Sat Flow, veh/h		3319	3131	1517	3319	3131	2671		3319	5025	1520	
Grp Volume(v), veh/h		145	384	135	172	244	355		193	1246	146	
Grp Sat Flow(s),veh/h/ln		1659	1566	1517	1659	1566	1335		1659	1675	1520	
Q Serve(g_s), s		4.0	10.8	7.5	4.8	6.4	11.7		5.3	20.7	6.7	
Cycle Q Clear(g_c), s		4.0	10.8	7.5	4.8	6.4	11.7		5.3	20.7	6.7	
Prop In Lane		1.00		1.00	1.00		1.00		1.00		1.00	
Lane Grp Cap(c), veh/h		213	575	278	242	602	513		270	1676	507	
V/C Ratio(X)		0.68	0.67	0.48	0.71	0.41	0.69		0.71	0.74	0.29	
Avail Cap(c_a), veh/h		335	804	390	335	804	686		482	1733	524	
HCM Platoon Ratio		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	
Uniform Delay (d), s/veh		43.2	35.8	34.5	42.7	33.3	35.5		42.2	27.8	23.2	
Incr Delay (d2), s/veh		3.8	1.4	1.3	4.3	0.4	1.9		3.5	1.7	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	
%ile BackOfQ(95%),veh/ln		3.1	7.2	4.9	3.6	4.3	6.7		4.0	12.6	4.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		47.0	37.2	35.8	47.0	33.8	37.4		45.7	29.5	23.5	
LnGrp LOS		D	D	D	D	C	D		D	C	C	
Approach Vol, veh/h			664			771				1585		
Approach Delay, s/veh			39.0			38.4				31.0		
Approach LOS			D			D				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	37.4	12.4	23.1	13.2	45.6	11.5	23.9
Change Period (Y+Rc), s	5.5	* 6	5.5	* 5.8	5.5	6.0	5.5	5.8
Max Green Setting (Gmax), s	21.5	* 33	9.5	* 24	13.7	39.8	9.5	24.2
Max Q Clear Time (g_c+I1), s	14.6	22.7	6.8	12.8	7.3	18.2	6.0	13.7
Green Ext Time (p_c), s	1.2	8.7	0.2	4.5	0.4	17.0	0.2	3.5

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	461	1150	145
Future Volume (veh/h)	461	1150	145
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1796	1841	1796
Adj Flow Rate, veh/h	461	1150	145
Peak Hour Factor	1.00	1.00	1.00
Percent Heavy Veh, %	7	4	7
Cap, veh/h	558	2112	639
Arrive On Green	0.17	0.42	0.42
Sat Flow, veh/h	3319	5025	1520
Grp Volume(v), veh/h	461	1150	145
Grp Sat Flow(s),veh/h/ln	1659	1675	1520
Q Serve(g_s), s	12.6	16.2	5.8
Cycle Q Clear(g_c), s	12.6	16.2	5.8
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	558	2112	639
V/C Ratio(X)	0.83	0.54	0.23
Avail Cap(c_a), veh/h	757	2122	642
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	20.5	17.5
Incr Delay (d2), s/veh	5.5	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.1	9.8	3.4
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	43.4	20.8	17.7
LnGrp LOS	D	C	B
Approach Vol, veh/h		1756	
Approach Delay, s/veh		26.5	
Approach LOS		C	
Timer - Assigned Phs			

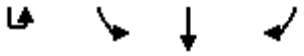
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (veh/h)	26	152	356	159	3	281	533	658	75	265	1155	213
Future Volume (veh/h)	26	152	356	159	3	281	533	658	75	265	1155	213
Initial Q (Qb), veh		0	0	0		0	0	0		0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00		1.00		1.00
Parking Bus, Adj		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	
Adj Sat Flow, veh/h/ln		1826	1767	1826		1826	1767	1826		1826	1856	1826
Adj Flow Rate, veh/h		152	356	159		281	533	658		265	1155	213
Peak Hour Factor		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Percent Heavy Veh, %		5	9	5		5	9	5		5	3	5
Cap, veh/h		213	696	320		345	827	669		337	1594	486
Arrive On Green		0.06	0.21	0.21		0.10	0.25	0.25		0.10	0.31	0.31
Sat Flow, veh/h		3374	3357	1543		3374	3357	2717		3374	5066	1544
Grp Volume(v), veh/h		152	356	159		281	533	658		265	1155	213
Grp Sat Flow(s),veh/h/ln		1687	1678	1543		1687	1678	1358		1687	1689	1544
Q Serve(g_s), s		4.9	10.4	10.1		9.0	15.7	26.6		8.5	22.4	12.1
Cycle Q Clear(g_c), s		4.9	10.4	10.1		9.0	15.7	26.6		8.5	22.4	12.1
Prop In Lane		1.00		1.00		1.00		1.00		1.00		1.00
Lane Grp Cap(c), veh/h		213	696	320		345	827	669		337	1594	486
V/C Ratio(X)		0.71	0.51	0.50		0.81	0.64	0.98		0.79	0.72	0.44
Avail Cap(c_a), veh/h		321	736	338		412	827	669		504	1675	511
HCM Platoon Ratio		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
Uniform Delay (d), s/veh		50.7	38.8	38.7		48.5	37.3	41.4		48.5	33.6	30.1
Incr Delay (d2), s/veh		4.4	0.6	1.2		10.2	1.7	30.5		4.8	1.5	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
%ile BackOfQ(95%),veh/ln		3.8	7.5	6.8		7.5	10.5	16.8		6.6	13.8	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		55.1	39.4	39.9		58.7	39.0	71.8		53.4	35.1	30.7
LnGrp LOS		E	D	D		E	D	E		D	D	C
Approach Vol, veh/h			667				1472				1633	
Approach Delay, s/veh			43.1				57.4				37.5	
Approach LOS			D				E				D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.2	40.7	16.8	28.7	16.5	48.4	12.5	33.0
Change Period (Y+Rc), s	5.5	* 6	5.5	* 5.8	5.5	6.0	5.5	5.8
Max Green Setting (Gmax), s	23.5	* 37	13.5	* 24	16.5	43.0	10.5	27.2
Max Q Clear Time (g_c+I1), s	17.5	24.4	11.0	12.4	10.5	31.2	6.9	28.6
Green Ext Time (p_c), s	1.2	10.4	0.3	4.3	0.6	11.1	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	42.5
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (veh/h)	26	488	1521	187
Future Volume (veh/h)	26	488	1521	187
Initial Q (Qb), veh		0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00
Work Zone On Approach			No	
Adj Sat Flow, veh/h/ln		1826	1856	1826
Adj Flow Rate, veh/h		488	1521	187
Peak Hour Factor		1.00	1.00	1.00
Percent Heavy Veh, %		5	3	5
Cap, veh/h		571	1946	593
Arrive On Green		0.17	0.38	0.38
Sat Flow, veh/h		3374	5066	1545
Grp Volume(v), veh/h		488	1521	187
Grp Sat Flow(s),veh/h/ln		1687	1689	1545
Q Serve(g_s), s		15.5	29.2	9.4
Cycle Q Clear(g_c), s		15.5	29.2	9.4
Prop In Lane		1.00		1.00
Lane Grp Cap(c), veh/h		571	1946	593
V/C Ratio(X)		0.85	0.78	0.32
Avail Cap(c_a), veh/h		718	1973	602
HCM Platoon Ratio		1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00
Uniform Delay (d), s/veh		44.5	29.9	23.8
Incr Delay (d2), s/veh		8.2	2.1	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		11.2	17.0	6.0
Unsig. Movement Delay, s/veh				
LnGrp Delay(d),s/veh		52.7	32.0	24.1
LnGrp LOS		D	C	C
Approach Vol, veh/h			2196	
Approach Delay, s/veh			35.9	
Approach LOS			D	
Timer - Assigned Phs				

Appendix F – Potential Traffic from Anticipated Industrial Park

Trip Generation

Industrial Park (130)

Based upon methodology from ITE's Trip Generation, 10th Edition (2017)

Project Land Use		Project Density	Project Trips			Variable	Equation Used[1]	In/Out Distribution	
			Total	Inbound	Outbound				
Industrial Park	Autos	819,000 SF				1000 S.F.			
	Daily		**2,335**	1,168	1,168		LN(T) = 0.52LN(X) + 4.45	50%	50%
	AM Peak Hour		**295**	250	45		T = 0.40(X)	81%	19%
	PM Peak Hour		**295**	57	238		T = 0.40(X)	21%	79%
	Trucks								
	Daily		**467**	234	234				
	AM Peak Hour		**33**	15	18				
	PM Peak Hour		**33**	12	21				
	All Vehicles								
	Daily		**2,802**	1,401	1,401				
	AM Peak Hour		**328**	265	63				
	PM Peak Hour		**328**	69	259				

Note:

[1] Where: T = Trips; X = Density by Variable

Trip Distribution and Traffic Volume Figures

Figure F - 1
Potential Industrial Trip Distribution - Passenger Vehicles

Project Sunrise
Rancho Cordova, CA

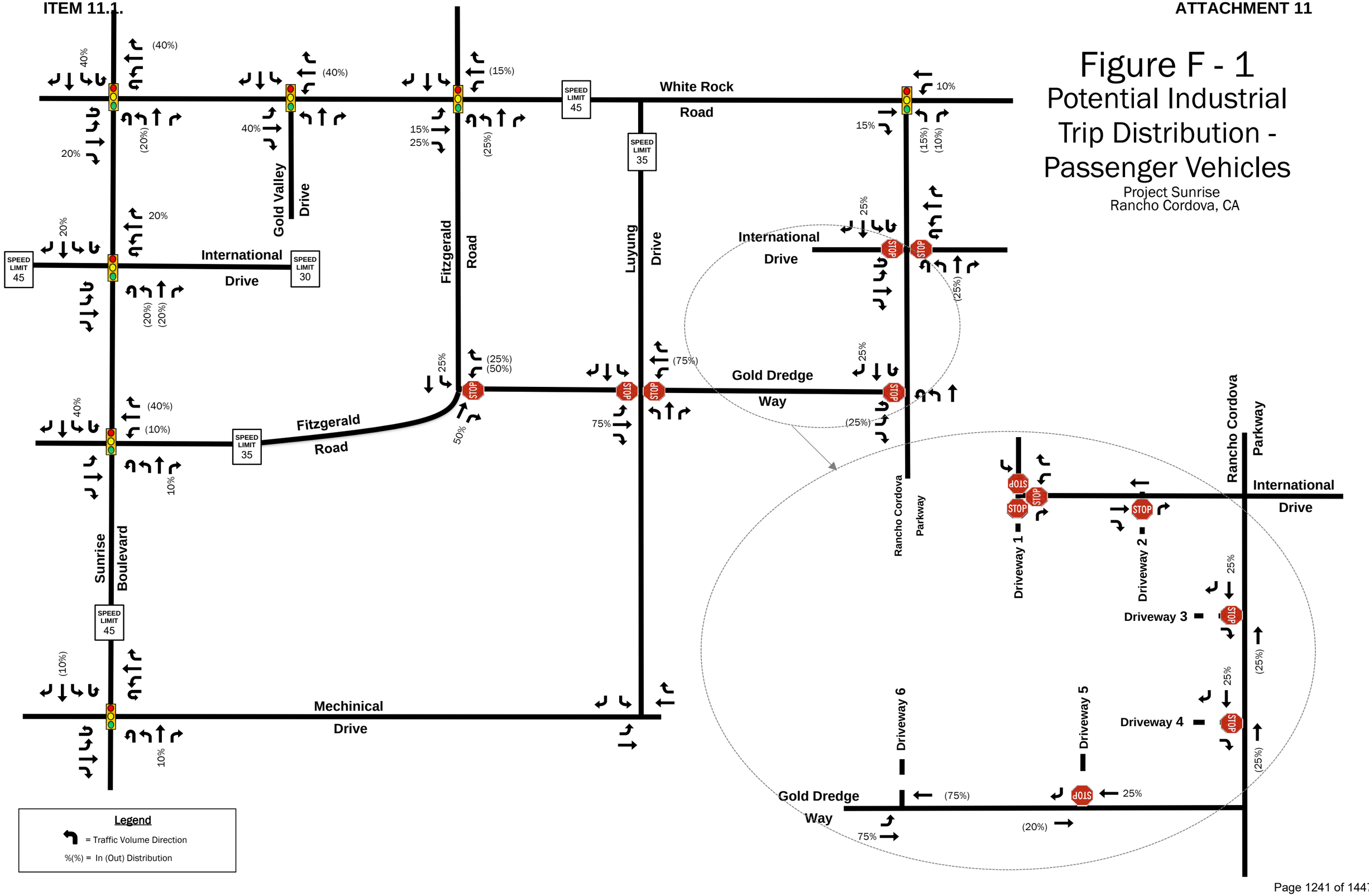


Figure F - 2
Potential Industrial Passenger Vehicle Trips

Project Sunrise
Rancho Cordova, CA

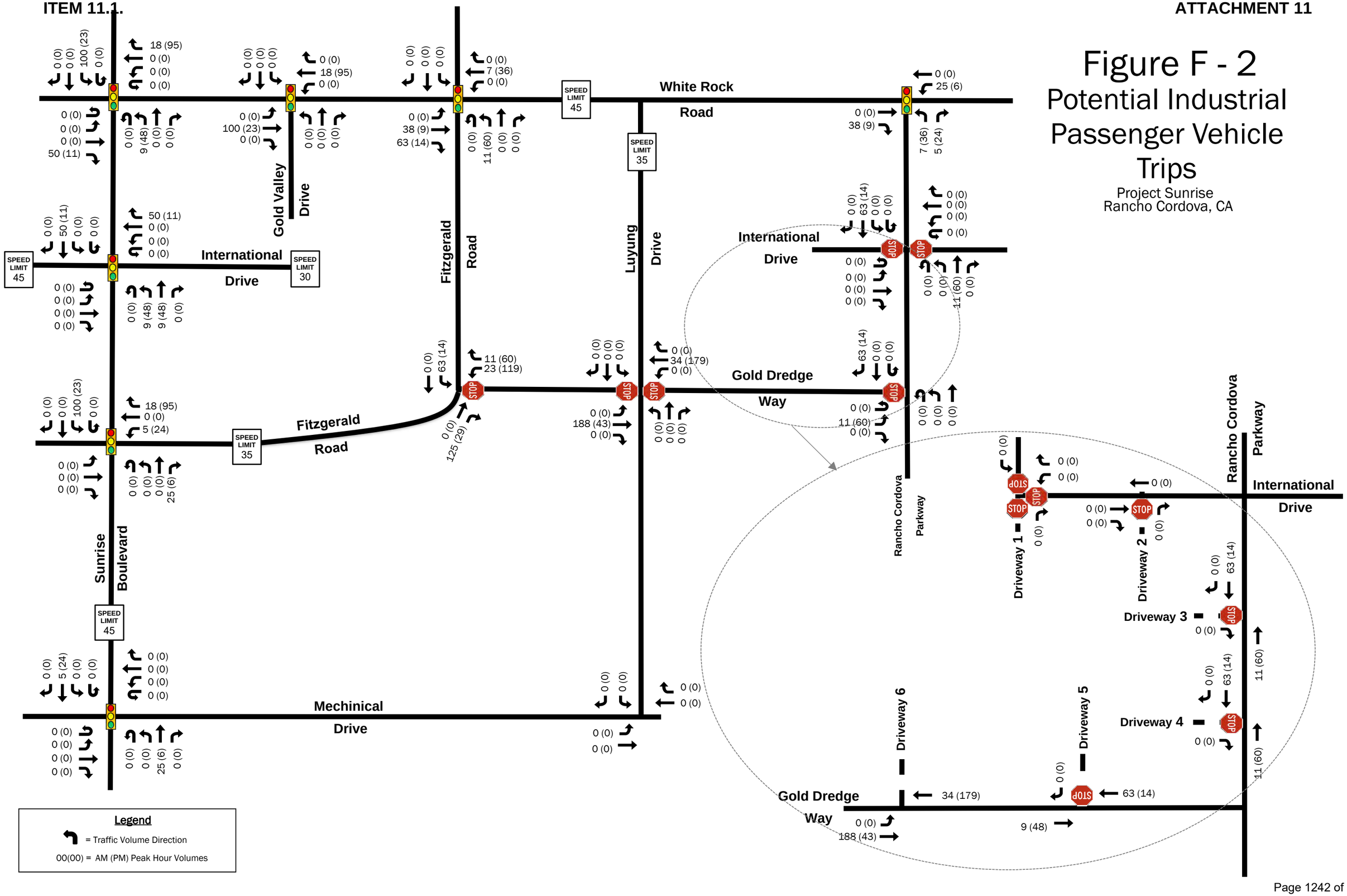


Figure F - 3
Potential Industrial Trip Distribution - Trucks

Project Sunrise
Rancho Cordova, CA

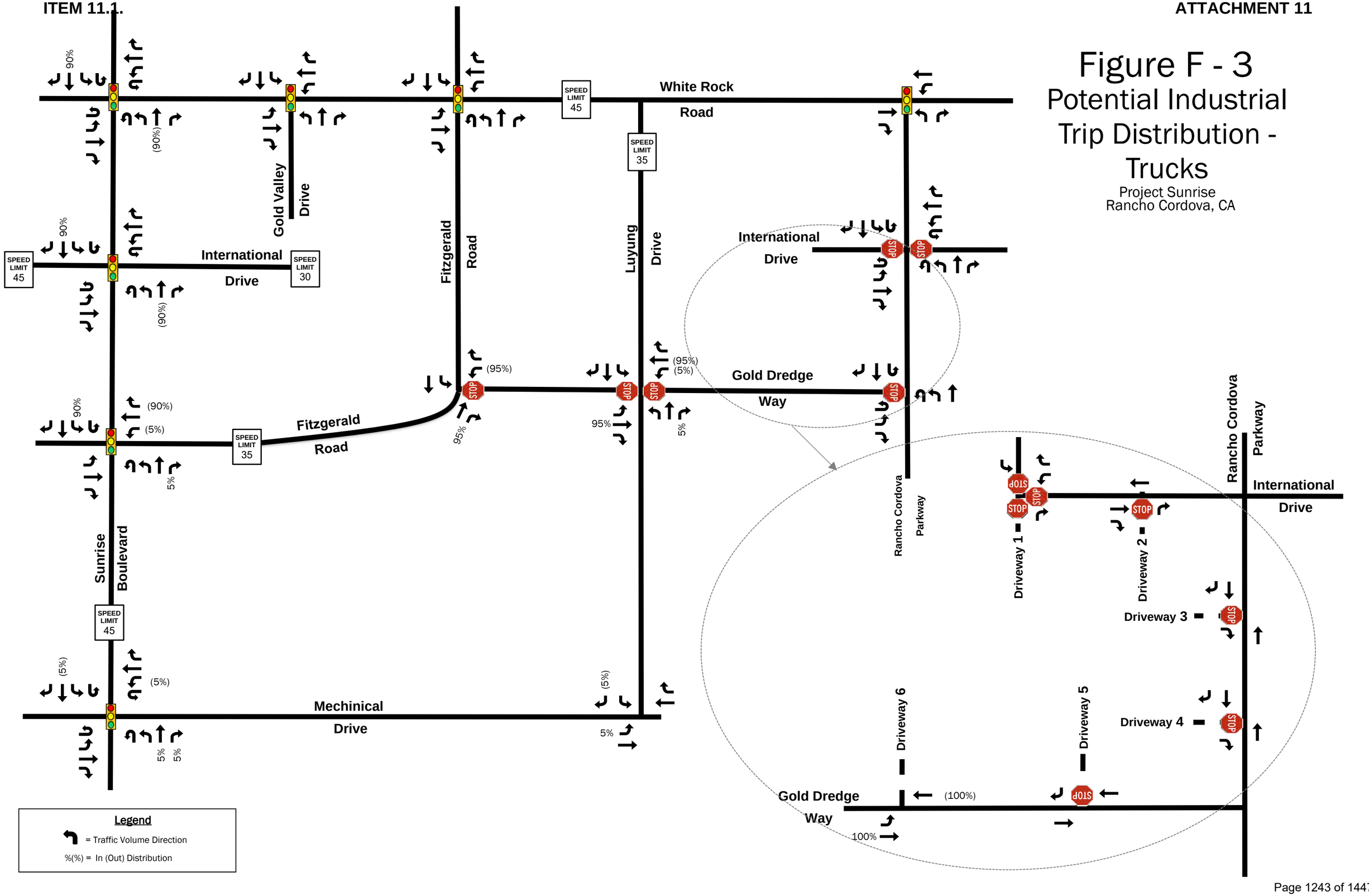


Figure F - 4

Potential Industrial Truck Trips

Project Sunrise
Rancho Cordova, CA

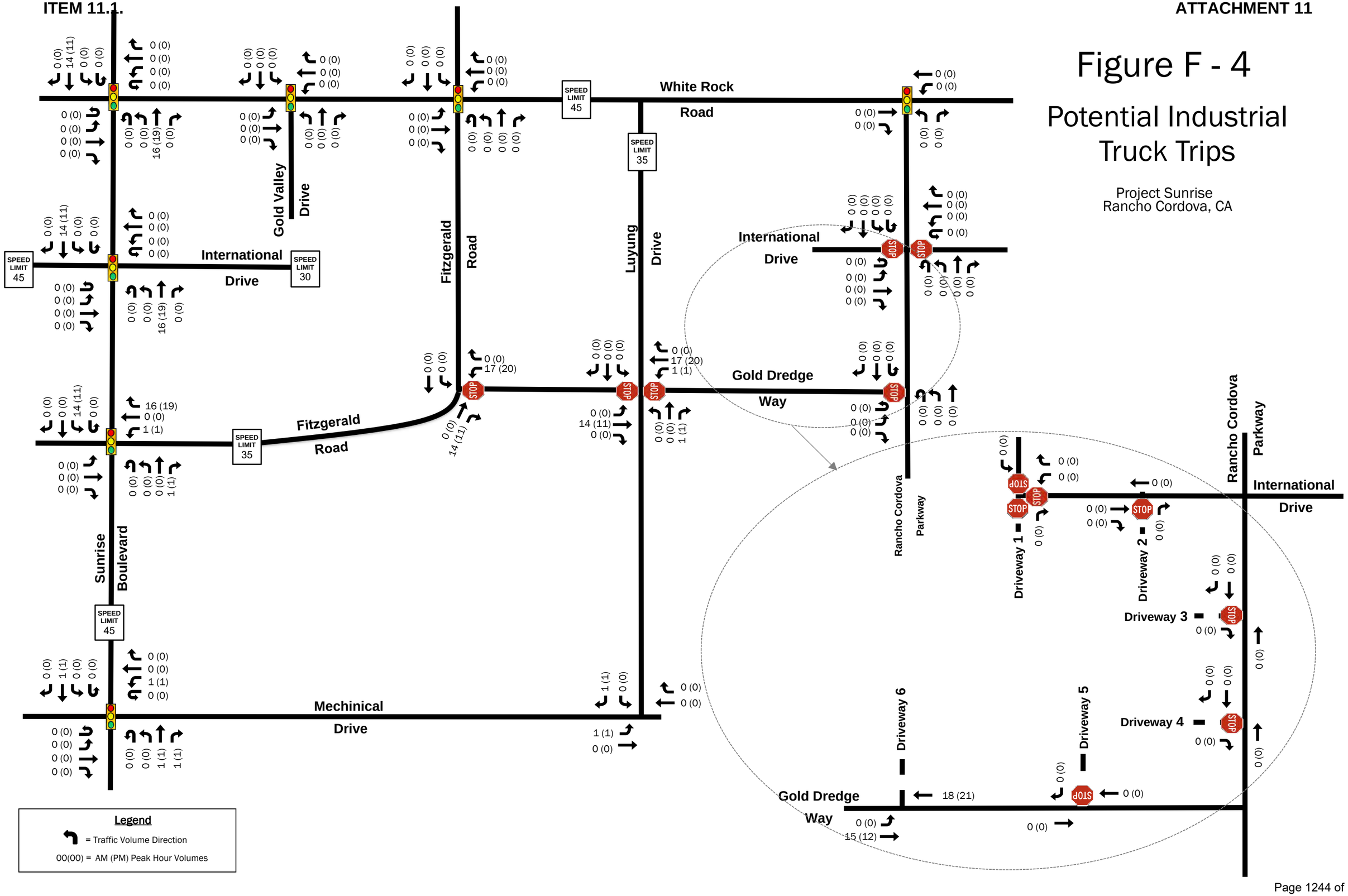
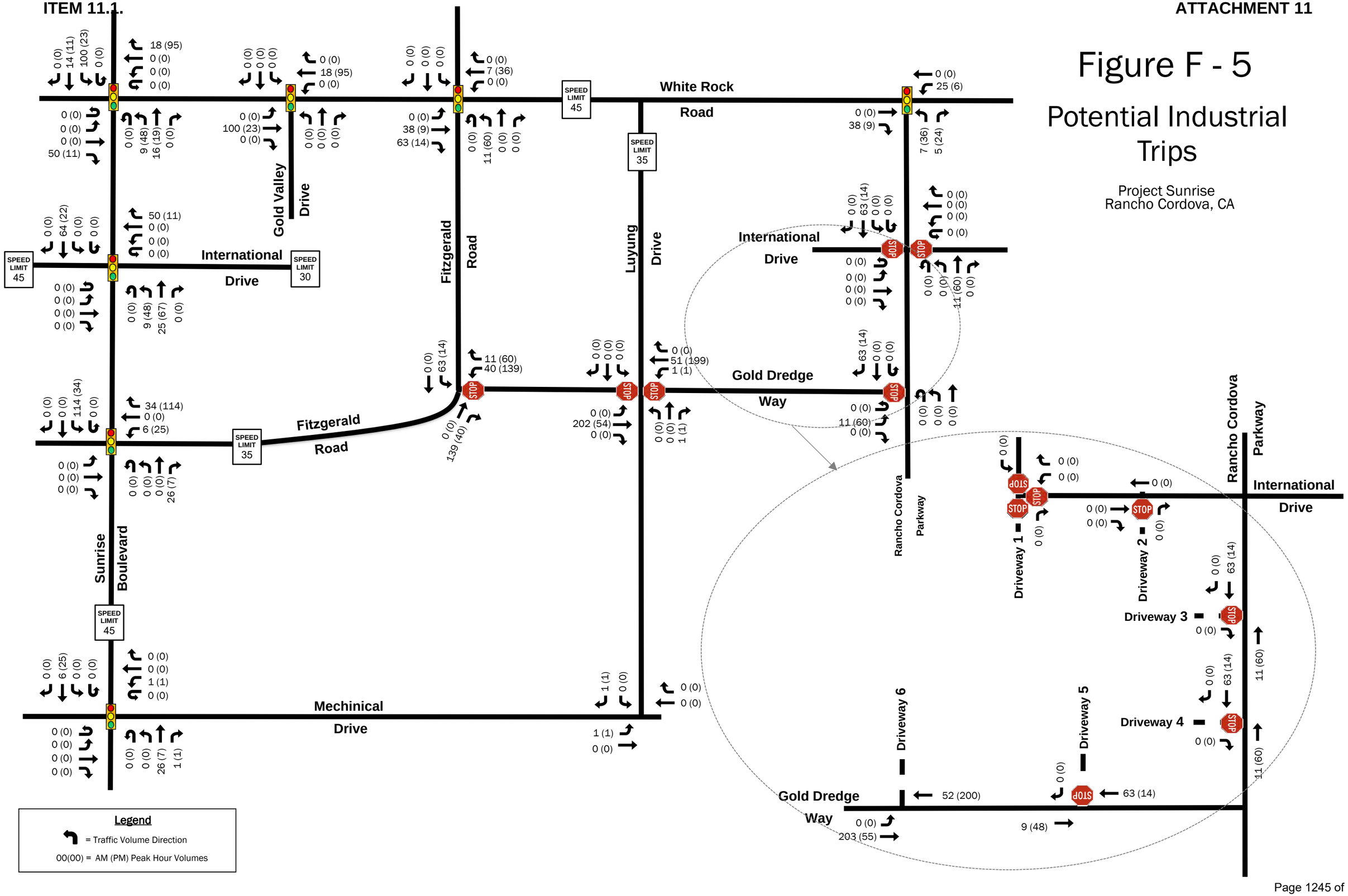


Figure F - 5

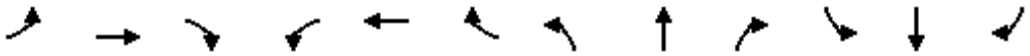
Potential Industrial Trips

Project Sunrise
Rancho Cordova, CA



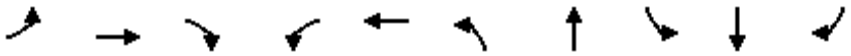
Appendix G – Queuing Results for Signalized Intersections

2023 No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	206	369	85	172	237	323	234	1198	124	371	1104	145
v/c Ratio	0.63	0.63	0.22	0.55	0.28	0.74	0.61	0.69	0.20	0.73	0.58	0.22
Control Delay	54.9	43.5	2.4	52.3	36.8	26.1	51.4	31.9	4.6	51.2	27.4	4.9
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	54.9	43.5	2.4	52.3	36.8	26.1	51.4	31.9	4.6	51.2	27.4	4.9
Queue Length 50th (ft)	68	120	0	56	50	75	76	249	0	121	211	0
Queue Length 95th (ft)	112	170	9	96	75	178	123	330	34	180	282	42
Internal Link Dist (ft)		1394			850			927			1359	
Turn Bay Length (ft)	400		700	275		185	385		190	380		175
Base Capacity (vph)	348	775	469	348	1114	516	437	1770	625	580	1949	680
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	0.59	0.48	0.18	0.49	0.21	0.63	0.54	0.68	0.20	0.64	0.57	0.21

Intersection Summary



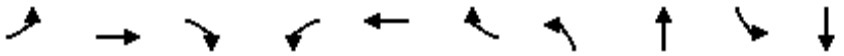
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	164	52	269	7	54	216	1414	85	943	265
v/c Ratio	0.38	0.13	0.34	0.06	0.29	0.81	0.62	0.51	0.41	0.31
Control Delay	32.8	23.5	4.8	36.6	20.2	59.1	17.6	45.4	14.5	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	23.5	4.8	36.6	20.2	59.1	17.6	45.4	14.5	3.2
Queue Length 50th (ft)	37	18	0	3	7	52	186	39	108	0
Queue Length 95th (ft)	67	50	32	16	40	#121	263	#100	158	43
Internal Link Dist (ft)		1427			723		1395		938	
Turn Bay Length (ft)	420		300	150		400		425		235
Base Capacity (vph)	1000	1242	1918	110	710	268	2272	168	2318	866
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	0.16	0.04	0.14	0.06	0.08	0.81	0.62	0.51	0.41	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Project Sunrise (Revised)

3: Sunrise Blvd & Fitzgerald Rd
2023 No Build AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	18	19	1	24	25	29	10	1664	61	937
v/c Ratio	0.12	0.12	0.00	0.15	0.16	0.11	0.08	0.52	0.36	0.25
Control Delay	38.6	38.7	0.0	38.5	38.5	0.9	40.6	12.5	42.8	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	38.7	0.0	38.5	38.5	0.9	40.6	12.5	42.8	6.4
Queue Length 50th (ft)	9	10	0	12	13	0	5	223	31	67
Queue Length 95th (ft)	31	32	0	37	38	0	21	298	72	134
Internal Link Dist (ft)		376			855			2083		1722
Turn Bay Length (ft)	150		150	140		140	250		245	
Base Capacity (vph)	497	502	548	439	443	498	122	3202	186	3724
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	0.04	0.04	0.00	0.05	0.06	0.06	0.08	0.52	0.33	0.25

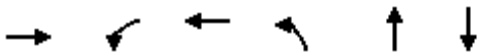
Intersection Summary



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	47	21	7	14	1750	29	949
v/c Ratio	0.21	0.11	0.02	0.08	0.46	0.16	0.24
Control Delay	37.0	38.5	0.1	40.6	9.4	40.3	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	38.5	0.1	40.6	9.4	40.3	6.0
Queue Length 50th (ft)	19	9	0	6	83	12	35
Queue Length 95th (ft)	59	34	0	27	320	44	142
Internal Link Dist (ft)	501	347			1611		2083
Turn Bay Length (ft)			150	215		240	
Base Capacity (vph)	577	575	598	165	3815	193	3922
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.04	0.01	0.08	0.46	0.15	0.24

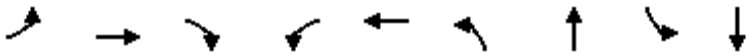
Intersection Summary

Queues
5: Gold Valley Dr & White Rock Rd



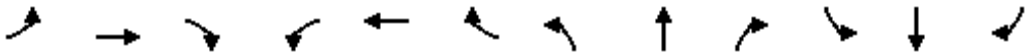
Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	623	4	545	13	18	1
v/c Ratio	0.22	0.01	0.18	0.02	0.03	0.00
Control Delay	3.3	15.5	1.3	14.3	0.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.3	15.5	1.3	14.3	0.1	0.0
Queue Length 50th (ft)	0	0	0	1	0	0
Queue Length 95th (ft)	100	9	44	17	0	0
Internal Link Dist (ft)	850		652		1122	258
Turn Bay Length (ft)		400		200		
Base Capacity (vph)	3210	560	3224	1663	1429	1458
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.01	0.17	0.01	0.01	0.00

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	285	161	19	364	136	91	15	39
v/c Ratio	0.20	0.17	0.18	0.06	0.27	0.29	0.19	0.05	0.12
Control Delay	27.0	12.8	4.0	30.2	19.0	25.4	21.6	29.6	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	12.8	4.0	30.2	19.0	25.4	21.6	29.6	18.9
Queue Length 50th (ft)	27	30	0	6	59	45	24	5	5
Queue Length 95th (ft)	75	85	39	29	115	110	71	24	34
Internal Link Dist (ft)		652			785		4269		119
Turn Bay Length (ft)	200			200		150		150	
Base Capacity (vph)	756	2150	1082	420	1770	1203	1222	894	858
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.13	0.15	0.05	0.21	0.11	0.07	0.02	0.05

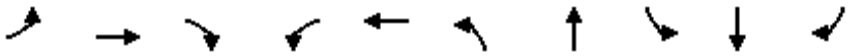
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	178	338	148	284	452	401	292	1117	186	455	1486	187
v/c Ratio	0.69	0.54	0.32	0.68	0.40	0.74	0.79	0.68	0.28	0.81	0.78	0.27
Control Delay	66.7	44.5	2.1	56.4	36.8	23.9	65.5	36.7	3.1	57.4	35.3	5.9
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	44.5	2.1	56.4	36.8	23.9	65.5	36.7	3.1	57.4	35.3	5.9
Queue Length 50th (ft)	66	117	0	103	101	107	108	267	0	163	352	6
Queue Length 95th (ft)	#122	166	3	155	133	223	#186	345	30	#235	449	56
Internal Link Dist (ft)		1394			850			927			1359	
Turn Bay Length (ft)	400		700	275		185	385		190	380		175
Base Capacity (vph)	259	821	544	486	1506	641	382	1639	653	627	1903	692
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	0.69	0.41	0.27	0.58	0.30	0.63	0.76	0.68	0.28	0.73	0.78	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



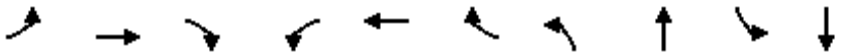
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	305	24	198	27	116	285	1197	43	1588	311
v/c Ratio	0.61	0.05	0.23	0.23	0.53	0.72	0.55	0.46	0.76	0.40
Control Delay	42.6	28.0	5.3	48.0	25.2	51.9	22.6	54.5	26.9	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	28.0	5.3	48.0	25.2	51.9	22.6	54.5	26.9	6.9
Queue Length 50th (ft)	85	10	0	15	20	82	198	23	279	23
Queue Length 95th (ft)	134	32	29	45	74	#155	286	63	396	92
Internal Link Dist (ft)		1427			723		1395		938	
Turn Bay Length (ft)	420		300	150		400		425		235
Base Capacity (vph)	770	921	1456	118	585	394	2183	107	2077	785
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	0.40	0.03	0.14	0.23	0.20	0.72	0.55	0.40	0.76	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Project Sunrise (Revised)

3: Sunrise Blvd & Fitzgerald Rd
2023 No Build PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	66	15	64	65	51	14	1179	75	1718
v/c Ratio	0.37	0.38	0.05	0.37	0.38	0.17	0.13	0.41	0.41	0.50
Control Delay	48.2	48.2	0.3	48.2	48.2	1.3	49.5	16.1	48.9	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	48.2	0.3	48.2	48.2	1.3	49.5	16.1	48.9	11.5
Queue Length 50th (ft)	37	40	0	37	38	0	8	165	43	187
Queue Length 95th (ft)	87	90	0	87	88	0	31	250	95	359
Internal Link Dist (ft)		376			855			2083		1722
Turn Bay Length (ft)	150		150	140		140	250		245	
Base Capacity (vph)	405	412	493	369	372	463	108	2980	256	3373
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	0.16	0.16	0.03	0.17	0.17	0.11	0.13	0.40	0.29	0.51

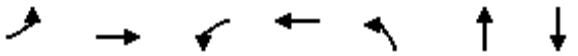
Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	186	43	54	9	10	902	37	1840
v/c Ratio	0.62	0.12	0.32	0.04	0.10	0.34	0.28	0.64
Control Delay	46.8	0.7	48.0	0.2	50.1	15.7	51.1	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	0.7	48.0	0.2	50.1	15.7	51.1	16.5
Queue Length 50th (ft)	101	0	30	0	6	124	21	244
Queue Length 95th (ft)	200	0	78	0	26	188	62	453
Internal Link Dist (ft)	501		347			1611		2083
Turn Bay Length (ft)		150		150	215		240	
Base Capacity (vph)	450	483	374	421	105	3132	143	3233
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.09	0.14	0.02	0.10	0.29	0.26	0.57

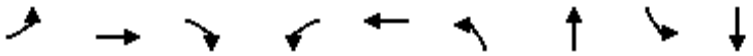
Intersection Summary

Queues
5: Gold Valley Dr & White Rock Rd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	3	565	13	657	68	23	5
v/c Ratio	0.01	0.25	0.03	0.28	0.15	0.03	0.01
Control Delay	20.3	6.7	19.5	6.7	16.4	0.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	6.7	19.5	6.7	16.4	0.1	0.0
Queue Length 50th (ft)	1	30	2	36	10	0	0
Queue Length 95th (ft)	8	105	18	121	52	0	0
Internal Link Dist (ft)		850		652		1122	258
Turn Bay Length (ft)	500		400		200		
Base Capacity (vph)	430	3390	496	3406	1508	1405	1333
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.17	0.03	0.19	0.05	0.02	0.00

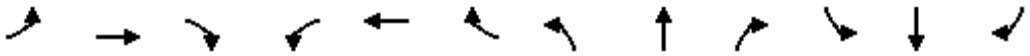
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	4	430	112	18	374	205	73	20	94
v/c Ratio	0.02	0.41	0.20	0.08	0.36	0.47	0.16	0.07	0.32
Control Delay	33.2	19.3	5.1	32.1	18.1	26.1	15.6	28.6	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	19.3	5.1	32.1	18.1	26.1	15.6	28.6	23.3
Queue Length 50th (ft)	1	54	0	5	45	53	10	5	17
Queue Length 95th (ft)	13	149	32	31	124	171	54	31	79
Internal Link Dist (ft)		652			785		4269		119
Turn Bay Length (ft)	200			200		150		150	
Base Capacity (vph)	273	2097	996	310	2122	1234	1220	821	816
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.21	0.11	0.06	0.18	0.17	0.06	0.02	0.12

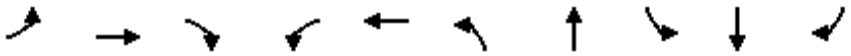
Intersection Summary

2023 Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	206	384	85	172	244	337	234	1230	146	401	1136	145
v/c Ratio	0.64	0.64	0.22	0.56	0.29	0.77	0.63	0.71	0.24	0.77	0.59	0.22
Control Delay	55.6	43.8	2.4	53.6	37.1	29.0	52.5	32.8	6.5	53.5	27.6	5.1
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	55.6	43.8	2.4	53.6	37.1	29.0	52.5	32.8	6.5	53.5	27.6	5.1
Queue Length 50th (ft)	70	126	0	58	52	89	78	266	4	134	223	1
Queue Length 95th (ft)	112	176	9	96	77	196	123	340	49	195	290	42
Internal Link Dist (ft)		1394			850			927			1359	
Turn Bay Length (ft)	400		700	275		185	385		190	380		175
Base Capacity (vph)	342	772	468	332	1096	509	421	1734	615	571	1935	675
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	0.60	0.50	0.18	0.52	0.22	0.66	0.56	0.71	0.24	0.70	0.59	0.21

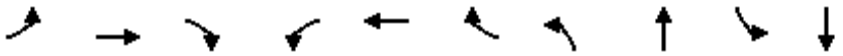
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	179	52	269	7	54	223	1453	85	975	265
v/c Ratio	0.41	0.13	0.33	0.06	0.29	0.84	0.64	0.51	0.42	0.31
Control Delay	32.9	23.3	4.7	36.9	20.4	62.9	18.1	45.8	14.8	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	23.3	4.7	36.9	20.4	62.9	18.1	45.8	14.8	3.2
Queue Length 50th (ft)	40	18	0	3	7	54	195	39	113	0
Queue Length 95th (ft)	72	50	31	16	41	#127	276	#100	167	43
Internal Link Dist (ft)		1427			723		1395		938	
Turn Bay Length (ft)	420		300	150		400		425		235
Base Capacity (vph)	996	1236	1911	110	707	267	2261	167	2308	863
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	0.18	0.04	0.14	0.06	0.08	0.84	0.64	0.51	0.42	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	18	19	1	27	27	68	10	1673	93	937
v/c Ratio	0.13	0.13	0.00	0.18	0.18	0.27	0.09	0.60	0.55	0.26
Control Delay	39.0	39.0	0.0	39.3	39.2	4.1	41.0	14.2	51.7	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	39.0	0.0	39.3	39.2	4.1	41.0	14.2	51.7	6.8
Queue Length 50th (ft)	9	10	0	14	14	0	5	225	49	67
Queue Length 95th (ft)	31	33	0	41	41	9	21	302	#119	135
Internal Link Dist (ft)		376			855			2083		1722
Turn Bay Length (ft)	150		150	140		140	250		245	
Base Capacity (vph)	449	454	507	397	401	462	110	2800	168	3549
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	0.04	0.04	0.00	0.07	0.07	0.15	0.09	0.60	0.55	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

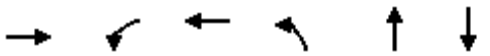
Queues
4: Sunrise Blvd & Mechanical Dr



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	47	23	7	14	1761	29	954
v/c Ratio	0.23	0.13	0.03	0.09	0.48	0.17	0.25
Control Delay	38.9	40.0	0.1	42.1	10.5	41.9	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	40.0	0.1	42.1	10.5	41.9	6.9
Queue Length 50th (ft)	23	11	0	7	166	15	71
Queue Length 95th (ft)	59	37	0	27	325	44	144
Internal Link Dist (ft)	501	347			1611		2083
Turn Bay Length (ft)			150	215		240	
Base Capacity (vph)	522	521	553	149	3704	175	3816
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.04	0.01	0.09	0.48	0.17	0.25

Intersection Summary

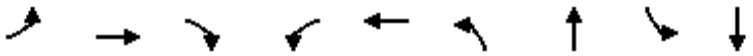
Queues
5: Gold Valley Dr & White Rock Rd



Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	690	4	565	13	18	1
v/c Ratio	0.24	0.01	0.19	0.03	0.03	0.00
Control Delay	3.2	16.8	1.2	15.6	0.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.2	16.8	1.2	15.6	0.1	0.0
Queue Length 50th (ft)	0	0	0	1	0	0
Queue Length 95th (ft)	112	9	46	17	0	0
Internal Link Dist (ft)	850		652		1122	258
Turn Bay Length (ft)		400		200		
Base Capacity (vph)	3212	515	3224	1652	1418	1449
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.01	0.18	0.01	0.01	0.00

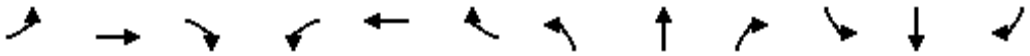
Intersection Summary

Queues
6: Fitzgerald Rd & White Rock Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	352	161	19	384	136	91	15	39
v/c Ratio	0.20	0.21	0.18	0.06	0.29	0.29	0.19	0.05	0.12
Control Delay	27.3	12.8	4.0	30.5	19.0	25.7	21.8	29.9	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	12.8	4.0	30.5	19.0	25.7	21.8	29.9	19.1
Queue Length 50th (ft)	27	38	0	6	63	45	25	5	5
Queue Length 95th (ft)	76	103	39	28	122	111	72	24	34
Internal Link Dist (ft)		652			785		4269		119
Turn Bay Length (ft)	200			200		150		150	
Base Capacity (vph)	752	2143	1079	416	1761	1198	1216	889	853
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.16	0.15	0.05	0.22	0.11	0.07	0.02	0.05

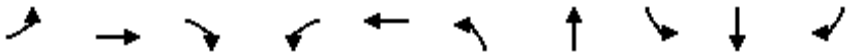
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	178	356	148	284	533	563	292	1136	213	491	1510	187
v/c Ratio	0.74	0.45	0.28	0.70	0.39	0.93	0.83	0.77	0.35	0.87	0.85	0.28
Control Delay	72.8	41.7	1.6	59.9	35.5	47.3	72.5	42.7	5.2	65.2	41.4	6.0
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	72.8	41.7	1.6	59.9	35.5	47.3	72.5	42.7	5.2	65.2	41.4	6.0
Queue Length 50th (ft)	71	125	0	109	121	266	115	297	0	192	395	6
Queue Length 95th (ft)	#122	175	3	155	156	#493	#186	352	50	#275	459	56
Internal Link Dist (ft)		1394			850			927			1359	
Turn Bay Length (ft)	400		700	275		185	385		190	380		175
Base Capacity (vph)	242	789	532	454	1406	614	357	1482	612	585	1777	657
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	0.74	0.45	0.28	0.63	0.38	0.92	0.82	0.77	0.35	0.84	0.85	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



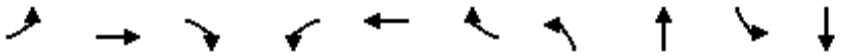
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	323	24	198	27	116	366	1225	43	1612	311
v/c Ratio	0.63	0.05	0.23	0.24	0.53	0.93	0.49	0.29	0.78	0.40
Control Delay	42.7	27.8	5.2	48.4	25.3	74.4	18.6	46.0	27.7	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	27.8	5.2	48.4	25.3	74.4	18.6	46.0	27.7	7.1
Queue Length 50th (ft)	91	10	0	15	20	109	182	24	287	25
Queue Length 95th (ft)	142	32	29	45	74	#222	283	60	410	95
Internal Link Dist (ft)		1427			723		1395		938	
Turn Bay Length (ft)	420		300	150		400		425		235
Base Capacity (vph)	765	915	1448	117	582	392	2498	259	2064	780
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	0.42	0.03	0.14	0.23	0.20	0.93	0.49	0.17	0.78	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Project Sunrise (Revised)

3: Sunrise Blvd & Fitzgerald Rd
2023 Build PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	66	15	84	86	151	14	1189	99	1718
v/c Ratio	0.39	0.40	0.05	0.46	0.47	0.49	0.14	0.46	0.52	0.56
Control Delay	50.2	50.3	0.3	50.4	50.6	12.5	51.3	17.6	53.0	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	50.3	0.3	50.4	50.6	12.5	51.3	17.6	53.0	14.1
Queue Length 50th (ft)	40	42	0	52	54	0	9	178	59	197
Queue Length 95th (ft)	89	91	0	109	111	55	31	261	121	373
Internal Link Dist (ft)		376			855			2083		1722
Turn Bay Length (ft)	150		150	140		140	250		245	
Base Capacity (vph)	375	381	468	342	344	441	100	2694	237	3074
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	0.17	0.17	0.03	0.25	0.25	0.34	0.14	0.44	0.42	0.56

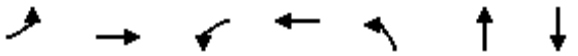
Intersection Summary

Queues
4: Sunrise Blvd & Mechanical Dr



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	186	43	55	9	10	913	37	1881
v/c Ratio	0.63	0.12	0.34	0.04	0.10	0.34	0.29	0.66
Control Delay	48.1	0.7	48.8	0.2	50.6	15.5	52.2	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	0.7	48.8	0.2	50.6	15.5	52.2	17.4
Queue Length 50th (ft)	105	0	31	0	6	126	21	261
Queue Length 95th (ft)	200	0	80	0	26	191	62	480
Internal Link Dist (ft)	501		347			1611		2083
Turn Bay Length (ft)		150		150	215		240	
Base Capacity (vph)	437	482	363	422	100	3042	134	3074
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.09	0.15	0.02	0.10	0.30	0.28	0.61

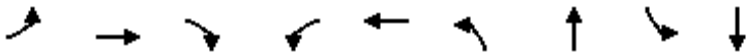
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	3	646	13	899	68	23	5
v/c Ratio	0.01	0.26	0.04	0.36	0.20	0.04	0.01
Control Delay	28.0	5.7	26.8	6.2	23.1	0.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	5.7	26.8	6.2	23.1	0.1	0.0
Queue Length 50th (ft)	1	37	3	58	15	0	0
Queue Length 95th (ft)	10	125	23	180	67	0	0
Internal Link Dist (ft)		850		652		1122	258
Turn Bay Length (ft)	500		400		200		
Base Capacity (vph)	332	3241	383	3261	1188	1266	1181
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.20	0.03	0.28	0.06	0.02	0.00

Intersection Summary

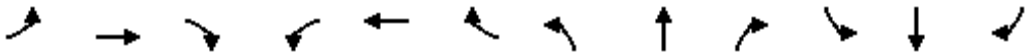
Queues
6: Fitzgerald Rd & White Rock Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	4	511	112	18	616	205	73	20	94
v/c Ratio	0.02	0.44	0.19	0.09	0.49	0.51	0.17	0.08	0.35
Control Delay	37.8	20.5	4.9	36.8	18.4	30.9	18.2	33.0	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	20.5	4.9	36.8	18.4	30.9	18.2	33.0	27.1
Queue Length 50th (ft)	1	70	0	6	86	63	12	6	20
Queue Length 95th (ft)	13	176	32	32	209	179	57	32	82
Internal Link Dist (ft)		652			785		4269		119
Turn Bay Length (ft)	200			200		150		150	
Base Capacity (vph)	242	1895	912	274	2000	1128	1117	726	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.27	0.12	0.07	0.31	0.18	0.07	0.03	0.13

Intersection Summary

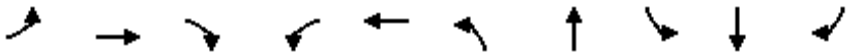
2023 Build+



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	206	384	135	172	244	355	243	1246	146	501	1150	145
v/c Ratio	0.66	0.65	0.34	0.58	0.29	0.81	0.66	0.74	0.25	0.92	0.59	0.22
Control Delay	57.7	44.6	8.2	55.2	37.4	33.1	54.8	34.6	6.6	67.5	28.1	5.3
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	57.7	44.6	8.2	55.2	37.4	33.1	54.8	34.6	6.6	67.5	28.1	5.3
Queue Length 50th (ft)	72	127	0	59	52	104	83	280	4	178	236	2
Queue Length 95th (ft)	113	177	47	97	77	219	128	345	49	#289	294	43
Internal Link Dist (ft)		1394			850			927			1359	
Turn Bay Length (ft)	400		700	275		185	385		190	380		175
Base Capacity (vph)	327	720	453	318	1022	494	402	1687	593	545	1936	663
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	0.63	0.53	0.30	0.54	0.24	0.72	0.60	0.74	0.25	0.92	0.59	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

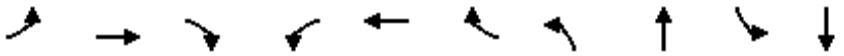


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	179	52	269	7	104	232	1478	85	1039	265
v/c Ratio	0.42	0.11	0.31	0.07	0.45	0.90	0.68	0.53	0.47	0.32
Control Delay	34.3	22.5	4.4	37.4	17.5	74.9	19.9	48.1	16.4	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	22.5	4.4	37.4	17.5	74.9	19.9	48.1	16.4	3.4
Queue Length 50th (ft)	40	18	0	3	7	57	200	39	122	0
Queue Length 95th (ft)	73	50	31	16	52	#136	291	#103	185	44
Internal Link Dist (ft)		1427			723		1395		938	
Turn Bay Length (ft)	420		300	150		400		425		235
Base Capacity (vph)	957	1188	1847	106	694	257	2174	161	2219	840
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	0.19	0.04	0.15	0.07	0.15	0.90	0.68	0.53	0.47	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
3: Sunrise Blvd & Fitzgerald Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	18	19	1	30	30	102	10	1699	207	937
v/c Ratio	0.13	0.13	0.00	0.20	0.20	0.35	0.09	0.71	0.67	0.26
Control Delay	39.1	39.2	0.0	39.6	39.5	4.3	41.3	20.0	45.2	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	39.2	0.0	39.6	39.5	4.3	41.3	20.0	45.2	6.8
Queue Length 50th (ft)	9	10	0	15	15	0	5	273	106	67
Queue Length 95th (ft)	32	33	0	44	44	9	22	360	#217	135
Internal Link Dist (ft)		376			855			2083		1722
Turn Bay Length (ft)	150		150	140		140	250		245	
Base Capacity (vph)	450	455	542	395	398	497	108	2393	317	3548
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	0.04	0.04	0.00	0.08	0.08	0.21	0.09	0.71	0.65	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Project Sunrise (Revised)

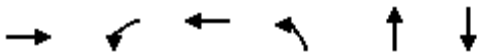
4: Sunrise Blvd & Mechanical Dr
2023 Build+ AM Peak Hour



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	47	24	7	14	1788	29	960
v/c Ratio	0.23	0.13	0.03	0.09	0.47	0.17	0.25
Control Delay	38.1	38.9	0.1	40.6	9.5	40.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	38.9	0.1	40.6	9.5	40.7	6.1
Queue Length 50th (ft)	23	12	0	7	153	14	64
Queue Length 95th (ft)	58	37	0	27	310	44	135
Internal Link Dist (ft)	501	347			1611		2083
Turn Bay Length (ft)			150	215		240	
Base Capacity (vph)	555	553	566	159	3770	182	3885
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.04	0.01	0.09	0.47	0.16	0.25

Intersection Summary

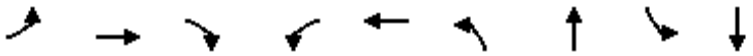
Queues
5: Gold Valley Dr & White Rock Rd



Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	790	4	583	13	18	1
v/c Ratio	0.31	0.01	0.22	0.03	0.03	0.00
Control Delay	4.4	21.5	2.3	20.2	0.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.4	21.5	2.3	20.2	0.1	0.0
Queue Length 50th (ft)	0	1	0	1	0	0
Queue Length 95th (ft)	133	10	48	19	0	0
Internal Link Dist (ft)	850		652		1122	258
Turn Bay Length (ft)		400		200		
Base Capacity (vph)	3023	433	3052	1502	1305	1347
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.01	0.19	0.01	0.01	0.00

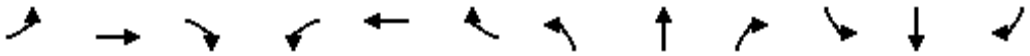
Intersection Summary

Queues
6: Fitzgerald Rd & White Rock Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	390	224	19	391	147	91	15	39
v/c Ratio	0.21	0.24	0.24	0.06	0.30	0.32	0.19	0.05	0.12
Control Delay	28.4	13.0	3.6	31.7	19.3	26.5	22.2	31.1	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	13.0	3.6	31.7	19.3	26.5	22.2	31.1	19.8
Queue Length 50th (ft)	28	44	0	7	66	50	25	5	5
Queue Length 95th (ft)	79	116	45	29	126	121	74	25	35
Internal Link Dist (ft)		652			785		4269		119
Turn Bay Length (ft)	200			200		150		150	
Base Capacity (vph)	740	2016	1085	392	1663	1186	1204	874	839
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.19	0.21	0.05	0.24	0.12	0.08	0.02	0.05

Intersection Summary

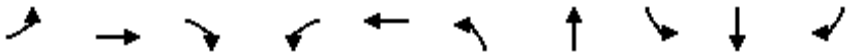


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	178	356	159	284	533	658	340	1155	213	514	1521	187
v/c Ratio	0.75	0.46	0.30	0.71	0.39	1.09	0.98	0.79	0.36	0.91	0.86	0.29
Control Delay	74.9	41.9	2.4	60.8	35.6	90.5	97.3	44.2	5.3	71.0	42.5	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.9	41.9	2.4	60.8	35.6	90.5	97.3	44.2	5.3	71.0	42.5	6.1
Queue Length 50th (ft)	71	126	0	109	121	~433	137	302	0	203	399	6
Queue Length 95th (ft)	#124	175	12	156	157	#666	#233	360	50	#300	464	56
Internal Link Dist (ft)		1394			850			927			1359	
Turn Bay Length (ft)	400		700	275		185	385		190	380		175
Base Capacity (vph)	236	779	530	441	1356	603	347	1457	598	569	1762	643
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	0.75	0.46	0.30	0.64	0.39	1.09	0.98	0.79	0.36	0.90	0.86	0.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

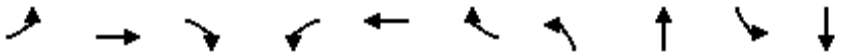


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	323	24	198	27	127	414	1292	43	1634	311
v/c Ratio	0.63	0.05	0.23	0.24	0.56	1.06	0.52	0.29	0.79	0.40
Control Delay	42.8	27.8	5.2	48.6	24.7	103.3	19.0	46.1	28.2	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	27.8	5.2	48.6	24.7	103.3	19.0	46.1	28.2	7.4
Queue Length 50th (ft)	91	10	0	15	20	~136	195	24	294	26
Queue Length 95th (ft)	142	32	29	45	77	#261	304	60	420	98
Internal Link Dist (ft)		1427			723		1395		938	
Turn Bay Length (ft)	420		300	150		400		425		235
Base Capacity (vph)	764	914	1447	117	586	391	2496	259	2062	777
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	0.42	0.03	0.14	0.23	0.22	1.06	0.52	0.17	0.79	0.40

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	66	15	97	98	265	14	1196	133	1718
v/c Ratio	0.40	0.40	0.05	0.48	0.48	0.73	0.14	0.50	0.65	0.56
Control Delay	51.8	51.9	0.3	49.8	49.9	25.2	53.1	19.9	59.2	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	51.9	0.3	49.8	49.9	25.2	53.1	19.9	59.2	15.1
Queue Length 50th (ft)	42	43	0	63	64	41	9	188	83	202
Queue Length 95th (ft)	91	93	0	121	123	131	32	281	#181	402
Internal Link Dist (ft)		376			855			2083		1722
Turn Bay Length (ft)	150		150	140		140	250		245	
Base Capacity (vph)	368	373	461	335	337	469	98	2543	232	3041
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	0.17	0.18	0.03	0.29	0.29	0.57	0.14	0.47	0.57	0.56

Intersection Summary

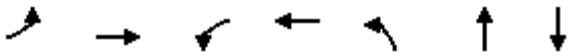
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
4: Sunrise Blvd & Mechanical Dr



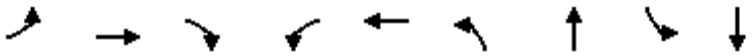
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	186	43	56	9	10	921	37	1906
v/c Ratio	0.64	0.12	0.33	0.03	0.09	0.35	0.29	0.67
Control Delay	46.3	0.7	44.5	0.2	45.0	15.4	48.6	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	0.7	44.5	0.2	45.0	15.4	48.6	16.8
Queue Length 50th (ft)	95	0	29	0	5	123	19	252
Queue Length 95th (ft)	189	0	74	0	24	180	58	453
Internal Link Dist (ft)	501		347			1611		2083
Turn Bay Length (ft)		150		150	215		240	
Base Capacity (vph)	385	438	384	438	116	2862	129	2908
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.10	0.15	0.02	0.09	0.32	0.29	0.66

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	3	669	13	994	68	23	5
v/c Ratio	0.01	0.30	0.05	0.44	0.26	0.04	0.01
Control Delay	32.7	6.2	31.3	7.1	28.5	0.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	6.2	31.3	7.1	28.5	0.2	0.0
Queue Length 50th (ft)	1	41	4	70	18	0	0
Queue Length 95th (ft)	11	132	25	210	76	0	0
Internal Link Dist (ft)		850		652		1122	258
Turn Bay Length (ft)	500		400		200		
Base Capacity (vph)	271	3093	312	3109	951	1151	1066
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.22	0.04	0.32	0.07	0.02	0.00

Intersection Summary

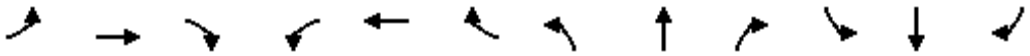


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	4	520	126	18	652	265	73	20	94
v/c Ratio	0.02	0.46	0.21	0.10	0.53	0.58	0.16	0.09	0.37
Control Delay	40.5	22.4	6.0	39.6	20.7	32.1	17.6	35.5	29.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	22.4	6.0	39.6	20.7	32.1	17.6	35.5	29.3
Queue Length 50th (ft)	1	78	0	6	102	89	13	7	22
Queue Length 95th (ft)	14	196	41	33	244	231	56	34	86
Internal Link Dist (ft)		652			785		4269		119
Turn Bay Length (ft)	200			200		150		150	
Base Capacity (vph)	223	1701	852	253	1813	1069	1060	671	671
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.31	0.15	0.07	0.36	0.25	0.07	0.03	0.14

Intersection Summary

2023 Build+

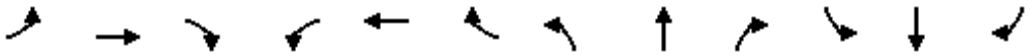
White Rock Road at Sunrise Boulevard with Revised Westbound Lane Striping



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	206	384	135	172	244	355	243	1246	146	501	1150	145
v/c Ratio	0.70	0.66	0.31	0.60	0.42	0.46	0.64	0.79	0.24	0.81	0.60	0.22
Control Delay	60.7	44.7	3.2	56.1	39.4	5.8	52.6	37.5	2.7	52.4	28.0	5.3
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	60.7	44.7	3.2	56.1	39.4	5.8	52.6	37.5	2.7	52.4	28.0	5.3
Queue Length 50th (ft)	71	127	0	59	77	0	82	288	0	168	229	2
Queue Length 95th (ft)	#125	178	15	97	115	40	127	361	22	#236	294	43
Internal Link Dist (ft)		1394			850			927			1359	
Turn Bay Length (ft)	400		700	275		185	385		190	380		175
Base Capacity (vph)	302	726	497	302	726	887	436	1581	601	684	1936	663
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	0.68	0.53	0.27	0.57	0.34	0.40	0.56	0.79	0.24	0.73	0.59	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



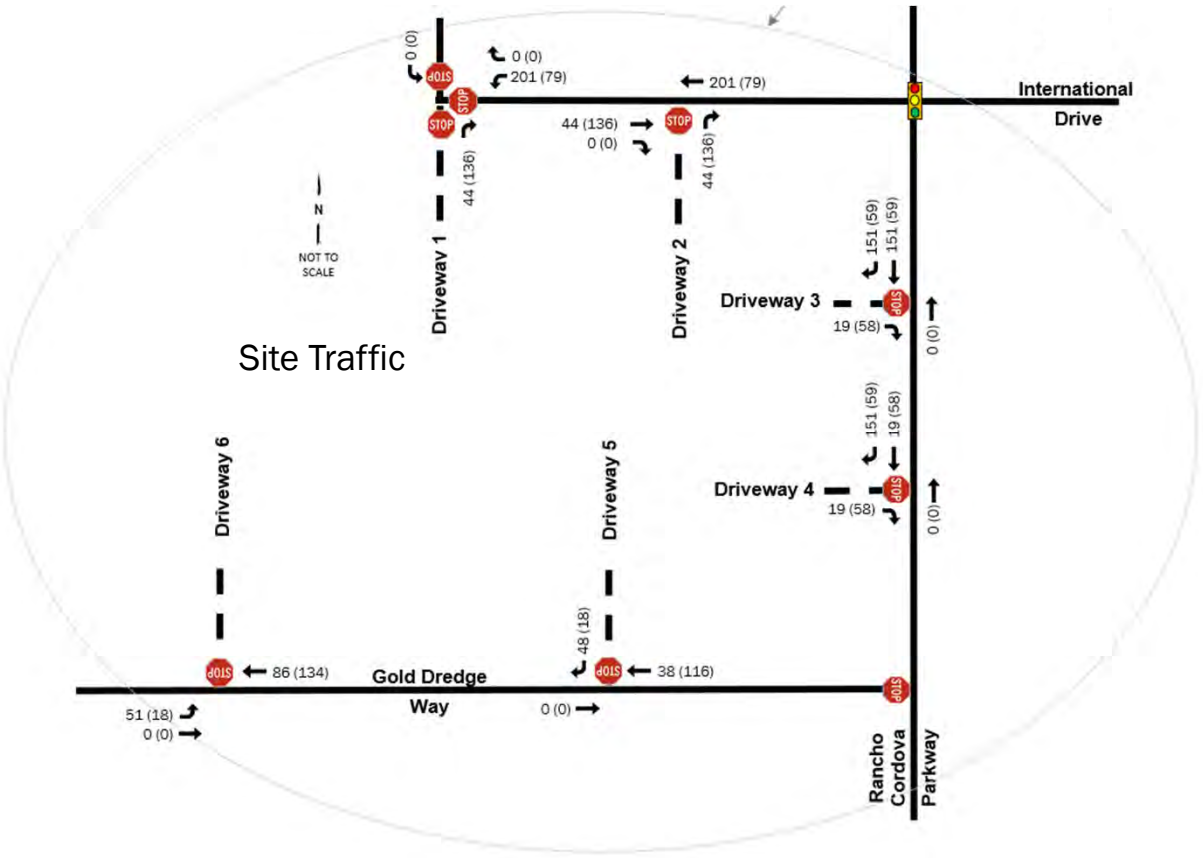
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	178	356	159	284	533	658	340	1155	213	514	1521	187
v/c Ratio	0.63	0.53	0.35	0.78	0.70	0.67	0.78	0.73	0.35	0.84	0.83	0.30
Control Delay	63.4	45.7	6.7	66.6	48.0	14.9	63.1	39.8	8.2	59.6	39.5	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	45.7	6.7	66.6	48.0	14.9	63.1	39.8	8.2	59.6	39.5	11.0
Queue Length 50th (ft)	69	131	0	111	201	67	131	295	14	196	393	31
Queue Length 95th (ft)	108	181	45	#169	265	142	184	350	74	259	457	86
Internal Link Dist (ft)		1394			850			927			1359	
Turn Bay Length (ft)	400		700	275		185	385		190	380		175
Base Capacity (vph)	295	676	450	380	761	979	464	1581	603	662	1829	630
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	0.60	0.53	0.35	0.75	0.70	0.67	0.73	0.73	0.35	0.78	0.83	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Appendix H – Driveway Volumes during the Site's Peak Hour and Synchro Analysis Reports

2023 Site Driveway Traffic Volumes During Site Peak Hours



Site Traffic



Approved Development +Site Traffic

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	201	8	0	44	24	0
Future Vol, veh/h	201	8	0	44	24	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	201	8	0	44	24	0
Number of Lanes	1	0	0	1	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.6	7	7.8
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	96%	100%
Vol Thru, %	0%	0%	0%
Vol Right, %	100%	4%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	44	209	24
LT Vol	0	201	24
Through Vol	0	0	0
RT Vol	44	8	0
Lane Flow Rate	44	209	24
Geometry Grp	1	1	1
Degree of Util (X)	0.046	0.243	0.031
Departure Headway (Hd)	3.804	4.186	4.657
Convergence, Y/N	Yes	Yes	Yes
Cap	947	857	773
Service Time	1.805	2.219	2.658
HCM Lane V/C Ratio	0.046	0.244	0.031
HCM Control Delay	7	8.6	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	1	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	68	0	0	209	0	44
Future Vol, veh/h	68	0	0	209	0	44
Conflicting Peds, #/hr	0	2	2	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	0
Mvmt Flow	68	0	0	209	0	44

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	72
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	996
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	992
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	992	-	-	-
HCM Lane V/C Ratio	0.044	-	-	-
HCM Control Delay (s)	8.8	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	19	0	8	175	151
Future Vol, veh/h	0	19	0	8	175	151
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	19	0	8	175	151

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	167	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	854	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	851	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	851	-	-
HCM Lane V/C Ratio	-	0.022	-	-
HCM Control Delay (s)	-	9.3	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	19	0	8	43	151
Future Vol, veh/h	0	19	0	8	43	151
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	19	0	8	43	151

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	101	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	941	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	937	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	937	-	-
HCM Lane V/C Ratio	-	0.02	-	-
HCM Control Delay (s)	-	8.9	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.6

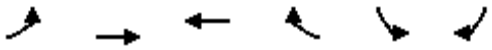
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	8	0	0	62	0	0	0	0	0	0	48
Future Vol, veh/h	0	8	0	0	62	0	0	0	0	0	0	48
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	0	2	2	2	2	2	2	2	2	0
Mvmt Flow	0	8	0	0	62	0	0	0	0	0	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	12	-	-	64
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.22	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.318	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	1069	0	0	1006
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	1065	-	-	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	-	-	-	-	1004
HCM Lane V/C Ratio	-	-	-	-	0.048
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1

HCM Unsignalized Intersection Capacity Analysis
16: Gold Dredge Way & Driveway 6



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	8	110	0	0	0
Future Volume (Veh/h)	51	8	110	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	51	8	110	0	0	0
Pedestrians		2	2		2	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	112				224	114
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	112				224	114
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				100	100
cM capacity (veh/h)	1490				737	937

Direction, Lane #	EB 1	WB 1
Volume Total	59	110
Volume Left	51	0
Volume Right	0	0
cSH	1490	1700
Volume to Capacity	0.03	0.06
Queue Length 95th (ft)	3	0
Control Delay (s)	6.5	0.0
Lane LOS	A	
Approach Delay (s)	6.5	0.0
Approach LOS		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	20.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	27	0	136	16	0
Future Vol, veh/h	79	27	0	136	16	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	79	27	0	136	16	0
Number of Lanes	1	0	0	1	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.8	7.1	7.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	75%	100%
Vol Thru, %	0%	0%	0%
Vol Right, %	100%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	136	106	16
LT Vol	0	79	16
Through Vol	0	0	0
RT Vol	136	27	0
Lane Flow Rate	136	106	16
Geometry Grp	1	1	1
Degree of Util (X)	0.132	0.122	0.02
Departure Headway (Hd)	3.496	4.159	4.426
Convergence, Y/N	Yes	Yes	Yes
Cap	1015	861	802
Service Time	1.557	2.191	2.492
HCM Lane V/C Ratio	0.134	0.123	0.02
HCM Control Delay	7.1	7.8	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.4	0.1

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	152	0	0	106	0	136
Future Vol, veh/h	152	0	0	106	0	136
Conflicting Peds, #/hr	0	2	2	0	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	0
Mvmt Flow	152	0	0	106	0	136

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	156
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	895
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	892
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	892	-	-	-
HCM Lane V/C Ratio	0.152	-	-	-
HCM Control Delay (s)	9.8	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	58	0	34	79	59
Future Vol, veh/h	0	58	0	34	79	59
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	58	0	34	79	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	73	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	981	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	977	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	977	-	-
HCM Lane V/C Ratio	-	0.059	-	-
HCM Control Delay (s)	-	8.9	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	58	0	34	78	59
Future Vol, veh/h	0	58	0	34	78	59
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	0	2	2	2	0
Mvmt Flow	0	58	0	34	78	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	73	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	981	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	977	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	977	-	-
HCM Lane V/C Ratio	-	0.059	-	-
HCM Control Delay (s)	-	8.9	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.9

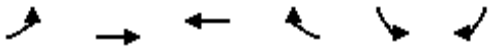
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	34	0	0	136	0	0	0	0	0	0	18
Future Vol, veh/h	0	34	0	0	136	0	0	0	0	0	0	18
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	0	2	2	2	2	2	2	2	2	0
Mvmt Flow	0	34	0	0	136	0	0	0	0	0	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	38	-	-	138
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.22	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.318	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	1034	0	0	916
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	1030	-	-	914
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	-	-	-	-	914
HCM Lane V/C Ratio	-	-	-	-	0.02
HCM Control Delay (s)	0	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-	0.1

HCM Unsignalized Intersection Capacity Analysis
16: Gold Dredge Way & Driveway 6



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	18	34	154	0	0	0
Future Volume (Veh/h)	18	34	154	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	18	34	154	0	0	0
Pedestrians		2	2		2	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	156				228	158
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	156				228	158
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	100
cM capacity (veh/h)	1436				749	886

Direction, Lane #	EB 1	WB 1
Volume Total	52	154
Volume Left	18	0
Volume Right	0	0
cSH	1436	1700
Volume to Capacity	0.01	0.09
Queue Length 95th (ft)	1	0
Control Delay (s)	2.7	0.0
Lane LOS	A	
Approach Delay (s)	2.7	0.0
Approach LOS		

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	25.8%	ICU Level of Service		A
Analysis Period (min)	15			

MEMORANDUM

ITEM 12.1.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Albert Stricker, Public Works Director
Steve Harriman, Public Works Division Manager

SUBJECT: **A RESOLUTION ADOPTING THE URBAN FOREST MASTER PLAN**

RECOMMENDATION

Adopt the Resolution.

RESULT OF RECOMMENDED ACTION

Adoption of the Resolution would adopt the Urban Forest Master Plan as a policy guidance reference document for the future maintenance, development and improvement of the urban forest in Rancho Cordova.

BACKGROUND

In 2019, the City was awarded an Urban and Community Forestry Proposition 68 Grant from the California Department of Forestry and Fire Protection (CalFire). The grant funds are intended to mitigate climate change through the implementation of tree planting projects, with a focus on planting in low income and under-canopied neighborhoods. The grant award from CalFire was in the amount of $369,500 and included funds for the preparation of the UFMP, additional staff resources from the Sacramento Tree Foundation to assist with community outreach and engagement, and the planting of 750 trees during the grant term.

The primary objective of the UFMP is to provide a third-party analysis of the City's Urban Forest Program, including an evaluation of the current condition of the urban forest and identification of opportunities for improvement. The document includes a Strategic Plan with specific recommendations for implementation in the coming years.

The development of the UFMP included significant community outreach and engagement to measure values and priorities related to the future management of the urban forest. The outreach included an on-line survey for residents and businesses, two virtual townhall meetings, and stakeholder interviews with City Council members and representatives from the Cordova Recreation and Park District, Folsom Cordova Unified School District, SMUD, Sacramento Tree Foundation, Volunteers in Neighborhood Services, and City staff from the Public Works and Community Development Departments.

A key finding is the current tree canopy cover ratio in Rancho Cordova is 6%, which includes

both developed neighborhoods and areas slated for future development with relatively low canopy cover. The plan recommends a 20% canopy ratio goal for Rancho Cordova and includes a series of recommended actions in the coming years to realize the 20% canopy goal.

The UFMP also focuses on strategies for new development, which is generally higher density with smaller planting spaces for medium and large stature trees compared to older neighborhoods. The plan highlights the importance of careful species selection in high-density new neighborhoods to maintain the health of the trees and protect sidewalks, curbs, driveways, and underground infrastructure from root damage. The plan also highlights the advantages of medium and large stature trees in new developments, including larger tree canopies that provide cleaner air and shaded streets, sidewalks, and houses.

With a focus on climate change, the plan recommends the City continually update the approved tree species list to provide “climate ready trees” for changing climate conditions in the coming decades. Finally, the plan urges the City to pursue planting projects in large open spaces like parks and stormwater basins to allow the planting of medium and large stature trees to allow the City to meet the 20% canopy goal.

Adoption of the resolution fulfills the requirements of the CalFire grant and provides recommendations to City staff and the community to protect, maintain and enhance the urban forest in Rancho Cordova.

FISCAL IMPACT AND FUNDING SOURCE

This project has no impact on the General Fund.

ATTACHMENT(S)

1. Resolution
2. Urban Forest Master Plan
3. UFMP Council Presentation Final 3 21 22 PDF

CITY OF RANCHO CORDOVA

RESOLUTION NO. XX-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA, STATE OF CALIFORNIA, ADOPTING THE URBAN FOREST MASTER PLAN AS A POLICY GUIDANCE DOCUMENT FOR THE PROTECTION, MAINTENANCE AND ENHANCEMENT OF RANCHO CORDOVA'S URBAN FOREST

WHEREAS, in 2019, the City was awarded an Urban and Community Forestry Proposition 68 Grant from the California Department of Forestry and Fire Protection; and

WHEREAS, the grant award of $369,500 includes funds for Sacramento Tree Foundation staff to assist with community outreach and engagement, the planting 750 trees with a focus on low income and under-canopied neighborhoods, and the preparation of the Urban Forest Master Plan ("UFMP"); and

WHEREAS, the City hired Dudek through a competitive procurement process to prepare the City's UFMP; and

WHEREAS, the development of the UFMP incorporated significant public outreach and engagement, including an on-line survey, two virtual townhall meetings, and stakeholder interviews with City Councilmembers, partner organizations and community leaders; and

WHEREAS, the UFMP provides a third party analysis of the City's Urban Forest Program to establish long term goals and identify opportunities for improvement; and

WHEREAS, the study determined the current canopy cover ratio in Rancho Cordova is 6% and establishes a long-term goal of 20%; and

WHEREAS, the plan recommends the City continually update the approved tree species list to provide "climate ready trees" for changing climate conditions in the coming decades; and

WHEREAS, the plan also recommends the City pursue planting of medium and large stature trees in parks and stormwater basins and channels to assist in meeting the 20% canopy goal.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF RANCHO CORDOVA does adopt the Urban Forest Master Plan as a policy guidance document for the protection, maintenance and enhancement of the City's Urban Forest and directs staff to amend Chapter 19 of the City's Municipal Code to add a reference to the plan as a policy guidance document.

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

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Donald Terry, Mayor

Stacy Leitner, CMC
City Clerk



RANCHO CORDOVA
URBAN FOREST MASTER PLAN

Prepared by
DUDEK

FEBRUARY 2022
Technical Review by
Urban Forest Innovations



VISION

RANCHO CORDOVA
CALIFORNIA

Working in partnership as community members, stakeholders and the City, we will improve public health, access to nature, and environmental equity for all of Rancho Cordova through sustainable management of the urban forest.



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PART 1:

URBAN FOREST MASTER PLAN



HISTORICAL AND ENVIRONMENTAL CONTEXT

The area where Rancho Cordova sits was originally the Tribal lands of the Nisenan, Maidu, and Miwok peoples (Native Land Digital 2015). In the twentieth century, due to escalating Cold War concerns, Mather Air Force Base and Aerojet General Corporation were built in the area, which attracted a large workforce. These groups spurred the development of homes and other infrastructure (Escalante 2019). Rancho Cordova's history of serving as a regional employment center continues today, drawing thousands to the City each day to work. In 2006, the City established a General Plan to address the major issue of an aging housing supply that did not meet the needs of the commuting workforce and the desire for the development of a walkable community with a distinct identity.

The area generally north and west of Sunrise Boulevard contains most of the City's urban footprint, existing housing, and existing trees owned by both private residents and the City itself. The area generally south and east of Sunrise Boulevard primarily consists of undeveloped land and scattered industrial and rural residential uses, with oak and cottonwood woodlands, grasslands, vernal pool areas, and open water and



rivers. The City's riparian areas comprise the historically tree-abundant parts of the City. As the City continues to grow and expand, Specific Plans have been created for areas of new development to continue to address a lack of affordable housing with proximity to jobs and services. In areas where high-density housing is important, communities have been designed to include compact and small trees to accommodate more housing units. As a tradeoff, parks and parklets incorporate trees in specific areas rather than on a house-by-house basis.

The City of Rancho Cordova officially incorporated on July 1, 2003 to build and develop a City that reflects the values and priorities of the community and provide an increased level of service to residents (Rancho Cordova 2021). Community leaders continue to assess the needs of the community, and increasing city-wide canopy cover has emerged as a community priority. In 2015 the City began an urban forest program led by the Department of Public Works to implement programs and policies to promote healthy trees, which now includes free trees for residential and commercial properties, stump removal, and community engagement and education programs. The City was recognized for its exceptional efforts receiving a Tree City USA designation in 2016 and the Growing Greenprint award in 2017 from the Sacramento Tree Foundation, and the Project of the Year Award for the Bear Hollow Tree Planting Project from the American Public Works Association in 2020.

TREE CITY USA®

While the City has been celebrated for its urban forest program, City staff recognized that continued expansion and appropriate maintenance of the urban forest happens beyond one department and extends into multiple City departments, elected officials, and community stakeholders. The City understands that the success of the urban forest program is dependent on all stakeholders working toward a shared vision and goals. The City decided to develop an urban forest master plan (UFMP) to create a unifying vision and a long-term strategic plan to guide City decisions and management of the urban forest. In 2018 the City was awarded a grant from the California Department of Forestry and Fire Protection (CAL FIRE) to fund the development of the UFMP, as well as supporting community engagement efforts to plant 750 trees in Rancho Cordova communities. The UFMP reflects the commitment of City staff that began when it was incorporated in 2003, to build a resilient and healthy city for current and future stakeholders of Rancho Cordova.





STATUS OF THE URBAN FOREST

Canopy Cover

Rancho Cordova has a total canopy cover of approximately 6%. However, the majority of development in the City is located in the northwestern portion of the City, while the southeastern portion remains largely undeveloped. Therefore, the canopy cover in each portion of the City was separately analyzed to provide a more accurate depiction of the City's canopy cover and establish realistic canopy cover goals. As shown in **Table 1**, Rancho Cordova currently has a canopy cover of approximately 12% within its developed area footprint and a canopy cover of approximately 1.4% in the undeveloped portion of the City. As such, Rancho Cordova's 12% canopy cover represents the canopy cover where the majority of community members live and work. The City's land cover distribution is depicted in **Figure 1** and **Figure 2** provides a breakdown of the land cover classes within the developed portion of the City.

Rancho Cordova has a total canopy cover of approximately 6%.

Table 1: Canopy Cover and Land Cover Assessment

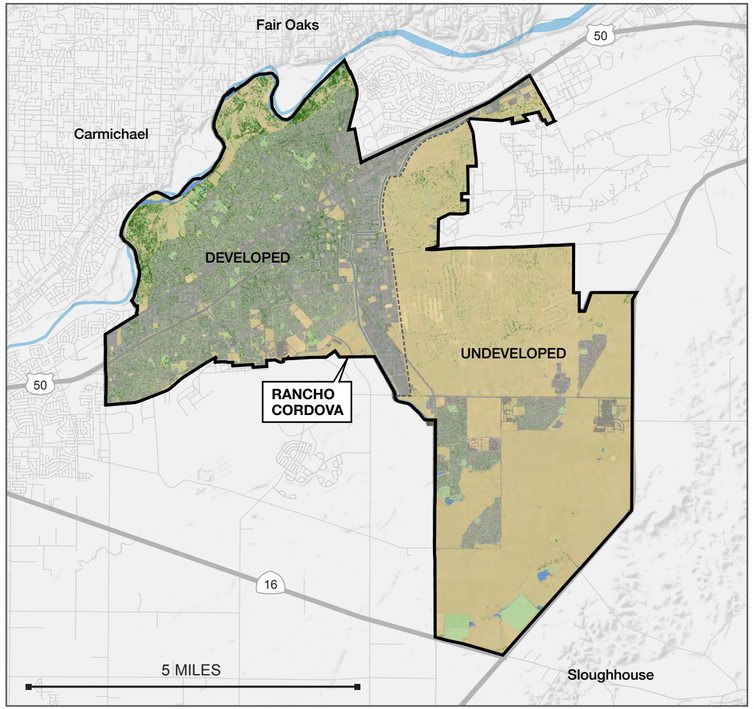
Land Cover Type	Developed		Land Cover Type	Undeveloped	
	Acres	% Cover		Acres	% Cover
Tree	1,186	11.7%	Tree	166	1.4%
Grass/shrub	1,689	16.7%	Grass/shrub	609	5.0%
Bare dirt	2,193	21.7%	Bare dirt	10329	85.0%
Impervious surface	4,862	21.7%	Impervious surface	1004	8.3%
Water	171	1.7%	Water	42	0.3%

FIGURE 1:

CANOPY COVER

Developed area canopy cover: 12%

Undeveloped area canopy cover: 1.4%



LAND COVER DISTRIBUTION

- City of Rancho Cordova
- Developed/Undeveloped
- Tree Canopy
- Grass/Shrub
- Bare Dirt
- Water
- Impervious Surface

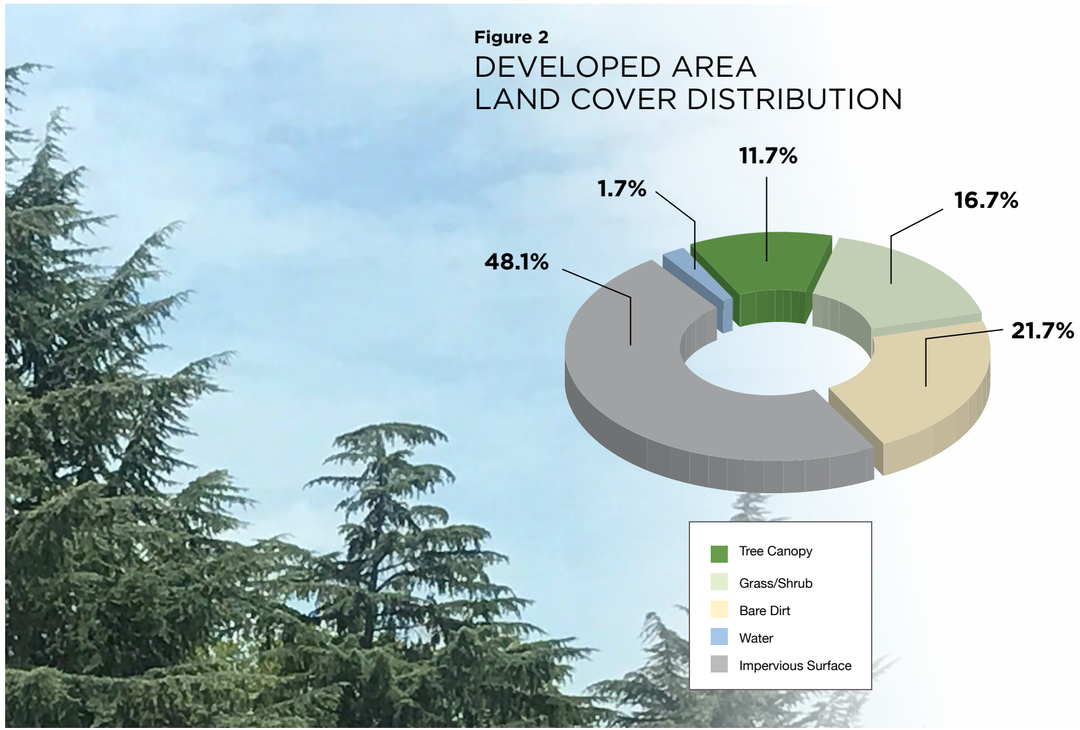


Table 2: Number of Trees Needed to Increase Canopy Cover

Total Canopy	Total Number of Trees by Canopy Spread			
	20 ft diameter	35 ft diameter	50 ft diameter	75 ft diameter
	Western redbud	*Callery pear*	*Chinese pistache*	*Interior live oak*
14%	*32,229*	*10,520*	*5,155*	*2,291*
16%	*60,255*	*19,667*	*9,638*	*4,282*
18%	*88,280*	*28,815*	*14,121*	*6,274*
20%	*116,306*	*37,963*	*18,604*	*8,266*
25%	*186,369*	*60,832*	*29,811*	*13,246*

Table 3: Benefits and Services Provided by Rancho Cordova's Public Tree Inventory

Service	Annual Environmental Benefit	Annual Environmental Impact	Annual Economic Value
Carbon Storage (carbon held in tree)	832.3 tons	The carbon stored in the City's urban forest is equivalent to the carbon emitted from 659 cars driven for 1 year.	$141,951
Carbon Sequestration (carbon removed from air)	28.5 tons	The carbon removed from the City's air by the urban forest is equivalent to an average passenger vehicle driving 259,305 miles.	$4,870
Avoided Runoff	17 ft3	This benefit is the equivalent of 125 gallons of water per year.	$1,120
Air Pollution Removal	869.2 lbs/year	Currently, 3.2 million people die worldwide annually from air pollution; this number could rise to 6.2 million by 2050.	$980

Sources: City of Rancho Cordova Tree Inventory (WCA 2019) and i-Tree Analysis (USFS 2020).

The total number of trees needed, by canopy size, to increase canopy cover in the developed portion of the City is provided in **Table 2**. For example, if the City elected to plant entirely 50-foot-diameter canopy trees, a total of 18,604 trees are needed to reach a 20% canopy cover.

Environmental Services/Economic Benefits

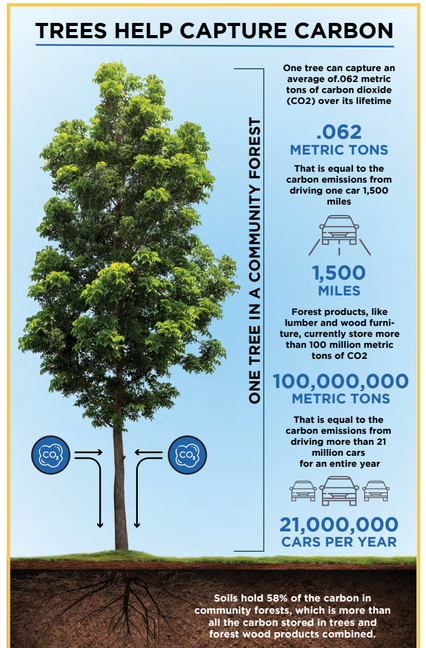
Trees provide a variety of environmental services and benefits that can be classified into three primary categories: environmental, social, and economic. The estimated annual environmental services provided by trees in the inventory are presented in **Table 3** and the financial value of the inventoried trees is shown in **Table 4**. **Figure 3** presents how trees help capture carbon and provides comparisons of the equivalent emissions.

Table 4: Financial Value of Rancho Cordova's Tree Inventory

Value	Description	Asset Amount	Per-Tree Value
Structural	Tree replacement cost	$7.13 Million	$1,823
Functional	Value based on the services trees perform	$6,970/year	$1.78

Sources: City of Rancho Cordova Tree Inventory (WCA 2019) and i-Tree Analysis (USFS 2020).

Figure 3: How Trees Capture Carbon



Trees in metropolitan areas and small towns in the U.S. are responsible for almost one-fifth of the country's captured and stored carbon emissions. They also shade buildings in the summer and block wind in the winter, which reduces the use of air conditioners and heaters—avoiding millions of tons of carbon emissions.

Species Diversity

Rancho Cordova's City managed tree inventory consists of 3,910 trees, composed of 28 families, 43 genera, and 76 species.



Table 5: Top 10 Families in Rancho Cordova's Tree Inventory

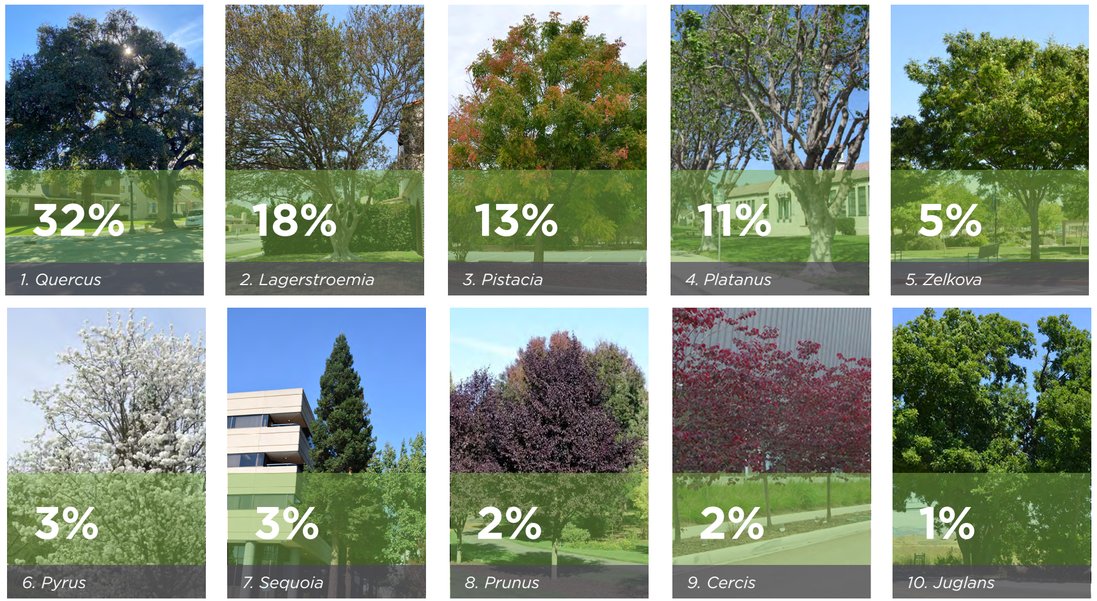
Family Diversity Sustainability Goal: No Family Greater than 20% of Inventory			
Rank	**Genus**	**Number of trees**	**% of Inventory**
1	*Fagaceae*	1269	32%
2	*Lythraceae*	705	18%
3	*Anacardiaceae*	616	16%
4	*Platanaceae*	424	11%
5	*Ulmaceae*	232	6%
6	*Rosaceae*	226	6%
7	*Fabaceae*	80	2%
8	*Juglandaceae*	64	2%
9	*Pinaceae*	42	1%
10	*Sapindaceae*	37	1%

Source: City of Rancho Cordova Tree Inventory (West Coast Arborists 2016)

Genus Diversity

TOP 10 Genera in Rancho Cordova's Tree Inventory

Sustainability Goal: No Genus Greater than 10% of Inventory

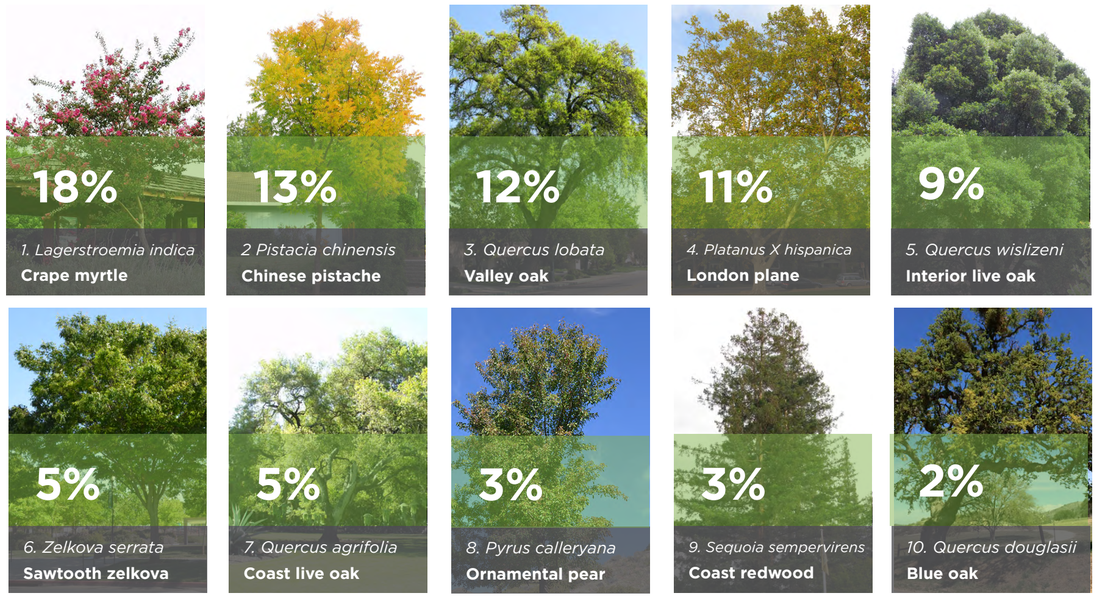


Source: City of Rancho Cordova Tree Inventory (WCA 2019)

Species Diversity

TOP 10 Species in Rancho Cordova's Tree Inventory

Sustainability Goal: No Species Greater than 5% of Inventory



Source: City of Rancho Cordova Tree Inventory (WCA 2019)

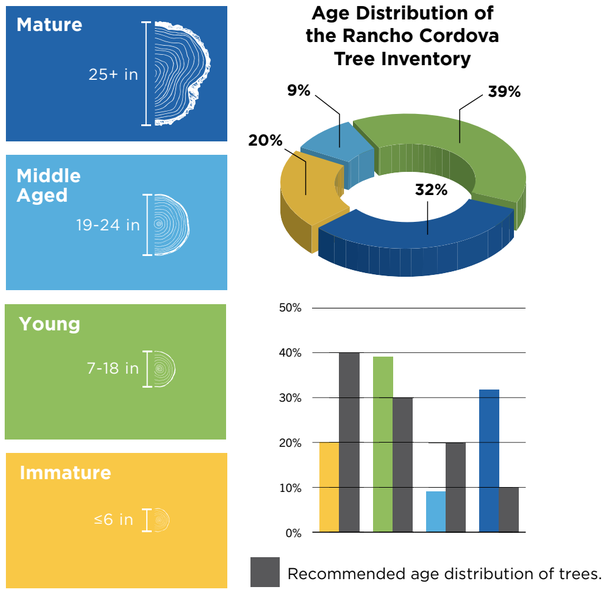
DBH/Age Distribution Summary

Figure 4 provides a breakdown of the age distribution of the Rancho Cordova tree inventory.

Based on urban forestry research (Richards 1983), there are more small stature, immature, and young trees than are recommended to maintain a sustainable urban forest. The City can expect trees' environmental services to significantly increase as the current tree population ages and tree size increases. A continued investment in tree planting and existing tree maintenance will be needed to ensure a sustainable age distribution is retained.

Figure 4

DBH / AGE DISTRIBUTION SUMMARY





Height Distribution - The height distribution of Rancho Cordova's tree inventory includes:

Table 6: Height Distribution of Rancho Cordova's Public Tree Inventory

Height (feet)	Size Classification	Number of trees	% of Inventory
0–15	Small	2,155	55%
16–30	Small	1,213	31%
31–45	Medium	330	8%
46–60	Large	160	4%
60+	Large	51	1%
Functional	Value based on the services trees perform	$6,970/year	$1.78

Source: City of Rancho Cordova Tree Inventory (WCA 2019)

Tree Condition - The condition of Rancho Cordova's tree inventory includes:

Table 7: Condition of Rancho Cordova's Public Tree Inventory

Condition	Number of Trees	Percent
Good	1,162	29.70%
Fair	2,659	68.00%
Poor	78	2.20%
Dead	4	0.10%
Total	3,910	100%

Source: City of Rancho Cordova Tree Inventory (WCA 2019)

Relative Performance Index Summary

The relative performance index (RPI) identifies which species are doing well and which many be having issues. Trees with an RPI of 1 or higher are performing as well or better than the entire inventory.

Table 8: Relative Performance Index of the Top 10 Species in Rancho Cordova's Inventory

Relative Performance Index (RPI)			
Goal: Top 6 Species Have an RPI Score of 1.0 or Higher			
Rank	**Botanical name**	**Common name**	**RPI**
City Inventory			0.3
1	*Lagerstroemia indica*	Crape myrtle	0.7
2	*Pistacia chinensis*	Chinese pistache	0.97
3	*Quercus lobata*	Valley oak	2.13
4	*Platanus X hispanica*	London plane	0.06
5	*Quercus wislizeni*	Interior live oak	2
6	*Zelkova serrata*	Sawtooth zelkova	0.67
7	*Quercus agrifolia*	Coast live oak	0.13
8	*Pyrus calleryana*	Ornamental pear	0.1
9	*Sequoia sempervirens*	Coast redwood	0.07
10	*Quercus douglasii*	Blue oak	0.5

Sources: City of Rancho Cordova Tree Inventory (WCA 2019) and i-Tree Analysis (USFS 2020).

Importance Values Summary

The importance value of tree species combines the percentage of the species in the population of City-owned trees with its corresponding percentage of leaf area.

Tree Management and Maintenance

FUNDING

The City's Public Works Department is responsible for the maintenance and management of 3,910 City-owned trees. In fiscal year 2019/2020, the City's urban forestry program operating budget expenditure was approximately $329,000 (approximately $84 per tree or $4.50 per capita). Existing funding levels allow the City to meet basic urban forest maintenance obligations, such as grid pruning and service request and emergency response. However, the City's urban forestry budget is considerably smaller than the average across comparably sized and nearby comparator municipalities, as measured by several factors. Increasing urban forest resources would significantly enhance the City's capacity for effective urban forest maintenance, community outreach and engagement, and successful pursuit of urban forest goals and objectives.

STAFF

The City has one 0.5 FTE contract arborist who is responsible for supporting tree related tasks. The number of FTEs in Rancho Cordova is lower than the average number for a city of Rancho Cordova's size (Hauer and Peterson 2016a), but is supplemented with contracted crews to perform tree pruning, removal, and other management activities.

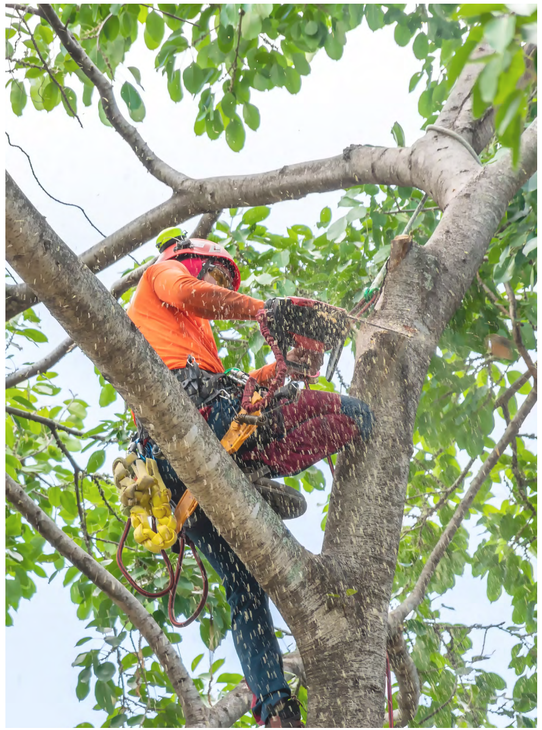


Table 9: Importance Values of the Top 10 Tree Species in the Rancho Cordova Inventory

Botanical name	Common name	Importance value
Platanus X hispanica	London Plane	35.2
Quercus lobata	Valley Oak	27.9
Lagerstroemia indica	Crape Myrtle	19.3
Quercus wislizenii	Interior Live Oak	18.4
Pistacia chinensis	Chinese Pistache	17.6
Quercus agrifolia	Coast Live Oak	13.9
Zelkova serrata	Japanese Zelkova	9.2
Sequoia sempervirens	Coast Redwood	8.3
Quercus ouglasii	Blue Oak	6.4
Pyrus calleryana	Ornamental Pear	4.8

Source: City of Rancho Cordova Tree Inventory (WCA 2019) and I-Tree (USFS 2020)



COMMUNITY ENGAGEMENT

Community Engagement

To understand the Rancho Cordova community's sentiments toward trees, and how these perceptions affect the urban forest, several community engagement activities were conducted. A UFMP that reflects the community is more likely to be implemented upon completion and will result in achieving the goals of the City urban forestry program. Community engagement conducted for the UFMP included community meetings, stakeholder interviews, a project webpage, an online survey, an educational video, social media posts, and print flyers.

Over 97% of survey respondents agreed that trees are a valuable asset to Rancho Cordova that contributes to their quality of life.



Public Survey

An online survey was created to evaluate the public's perception and understanding of the City's trees, and to offer a space for public feedback as the City developed the UFMP. The 20-question survey was open between October 26, 2020, and February 7, 2021. A total of 236 survey responses were received.

Comments received during community meetings, stakeholder interviews and survey responses were analyzed to determine major community themes, values, and priorities that were expressed for the City's urban forest, as detailed in **Table 10**.

Community Meetings

Two online community meetings were held via zoom on December 10 and 14, 2020 and were attended by 18 community members.



Table 10: Community Engagement Emerging Themes

Trees Valued	Survey respondents agree that trees are valuable assets to Rancho Cordova's quality of life.
	The American River Parkway is highly valued by residents.
	Trees are valued for providing habitat.
	Large, healthy trees should be preserved.
Development	Many residents expressed concerns and a lack of trust regarding new development in the City and the need to include residents in the planning process.
	Residents expressed concerns related to tree-infrastructure conflicts.
	Residents disliked that trees are being removed for new development.
Tree Management/Maintenance	Residents expressed concerns regarding nesting birds and tree maintenance activities.
	City tree pruning of private property trees could help encourage trees on private property.
Tree Policies	Desire for tree policies and protections that are equitably enforced for developers, residents, and especially new development.
Areas Lacking Trees	High density housing areas lack large trees.
	Lower income areas.
	New development.
	Public transit stations, bus stops, residential corridors.
Community Education/Outreach	Residents expressed a desire for more education and support related to the urban forest, incentives for tree planting, free tree programs, establishment care, watering, maintenance and care.
	More community events and volunteer opportunities are desired.
	Tree planting events and efforts present opportunities for job-training and internships.

Table 10: Community Engagement Emerging Themes, continued.	
Canopy Cover	Residents desire to preserve existing canopy cover.
	Preserving and increasing canopy cover will depend on single-family homeowners.
Species Diversity	Desire for native trees.
	Residents appreciate the native trees along the American River Parkway and would like to see more native trees in this area that provide wildlife habitat and shade.





WHY THE CITY NEEDS AN URBAN FOREST MASTER PLAN

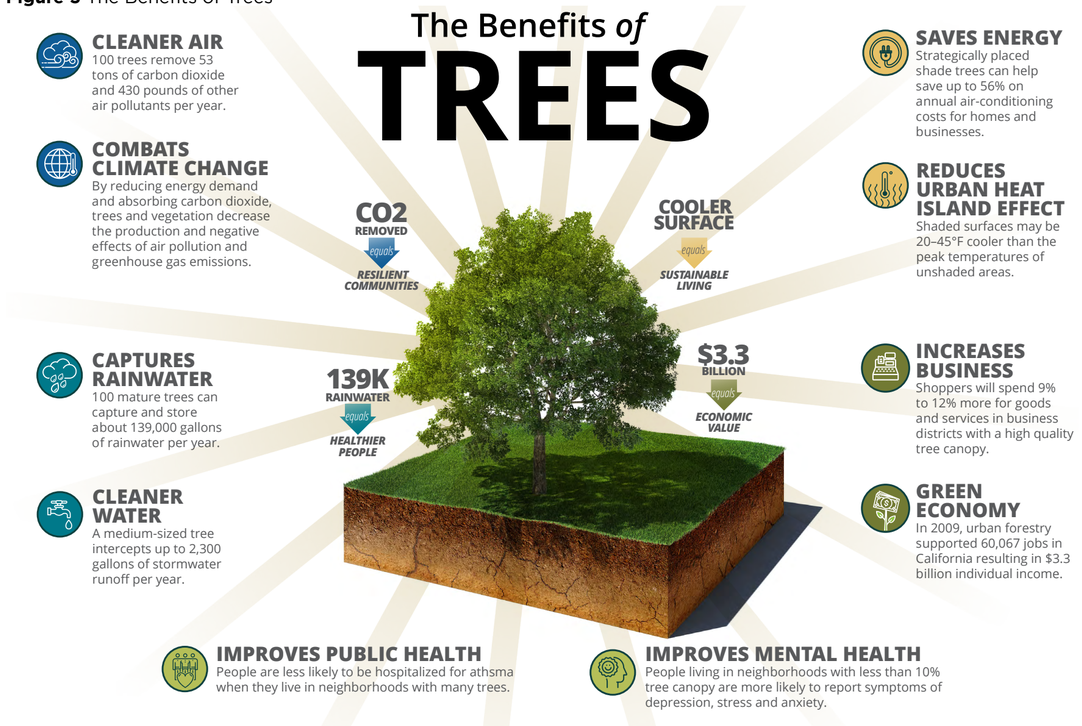
"Urban forest" is a term used to describe the collection of trees found within the built environment. An urban forest is distinguished by its existence among paved surfaces, buildings, parks, and a large human population. Rancho Cordova's urban forest is primarily human-created—the result of tree planting and greening activities carried out by people—rather than a native forest ecosystem. The City's urban forest requires regular maintenance to keep roads, sidewalks, and parks clear and safe, as well as to maintain the health of the trees. The concept of an urban forest challenges us to think holistically about trees found within the City and how to manage this natural resource for the benefits that create enjoyment for present and future generations. **Figure 5** displays just a few of the many different services and benefits of an urban forest.

Rancho Cordova's urban forest will face threats from abiotic and biotic factors as it grows over time. Abiotic factors are those that are the result of nonliving conditions or processes such as climate change, development, lack of community awareness or understanding, and unfavorable growing conditions. Biotic factors are the result of living organisms that cause issues in trees, such as pathogens or pests.

The difference between abiotic and biotic factors is an important distinction when considering the management strategies needed to improve tree health. A tree suffering from lack of water due to ongoing drought conditions may need to be examined more closely and replaced with a new tree species that has lower water requirements to help the urban forest adapt to climate change. Similarly, an oak tree infected by the pathogen that causes sudden oak death, Phytophthora ramorum, will require certain management actions to help prevent the spread of the pathogen to more trees.



Figure 5 The Benefits of Trees



Biotic Threats

INVASIVE PESTS AND DISEASES

California acquires a new invasive species approximately every 40 days (Hoddle 2021), and **the Sacramento region has been identified by the California Department of Food and Agriculture as one of the top 5 regions at risk for the establishment of invasive pests and diseases.**

These new threats have the potential to cause billions of dollars in damages to urban forests, wildlands, and agricultural settings, and pose a real risk to urban forest sustainability and environmental benefits if a particular tree species is severely infested.

One of the most important factors of a pest management program is frequent monitoring for signs and symptoms of disease development or pest infestations. Early detections of plant health problems will provide the City with the best chance to sustain a healthy urban forest canopy for the future. For specific pests and diseases that have either been documented and are actively managed in Rancho Cordova, or ones have the potential to establish in the area, see Chapter 2.3.3.7: Pest, Disease, and Invasive Species Management.

Abiotic Threats

CLIMATE CHANGE

Climate change is predicted to cause substantial negative impacts to commonly planted street tree species in California (McBride and Lacan 2018). **Over the past century, average maximum temperatures in California have increased between 1.6°F to 2.5°F** and these temperatures are expected to continue to rise over the coming years. In the San Joaquin-Sacramento Basin, increases in frequency, length, and intensity of heatwaves are projected (Cayan et. al. 2009). Conditions of wet and dry seasons are expected to become more extreme, with longer more intense periods of drought and heavier periods of precipitation with increased flooding (Swain et al. 2018). Finding additional irrigation water or funding for irrigation improvements for street trees will present a challenge (McBride and Lacan 2018). Due to these predicted weather and climate changes, **the City will need to critically reexamine its street tree palette and plan for a hotter, drier future as five of its most common street tree species may be as risk.**

This topic is discussed in greater detail in Chapter 1: Urban Forest Sustainability.

IMPROPER TREE MAINTENANCE

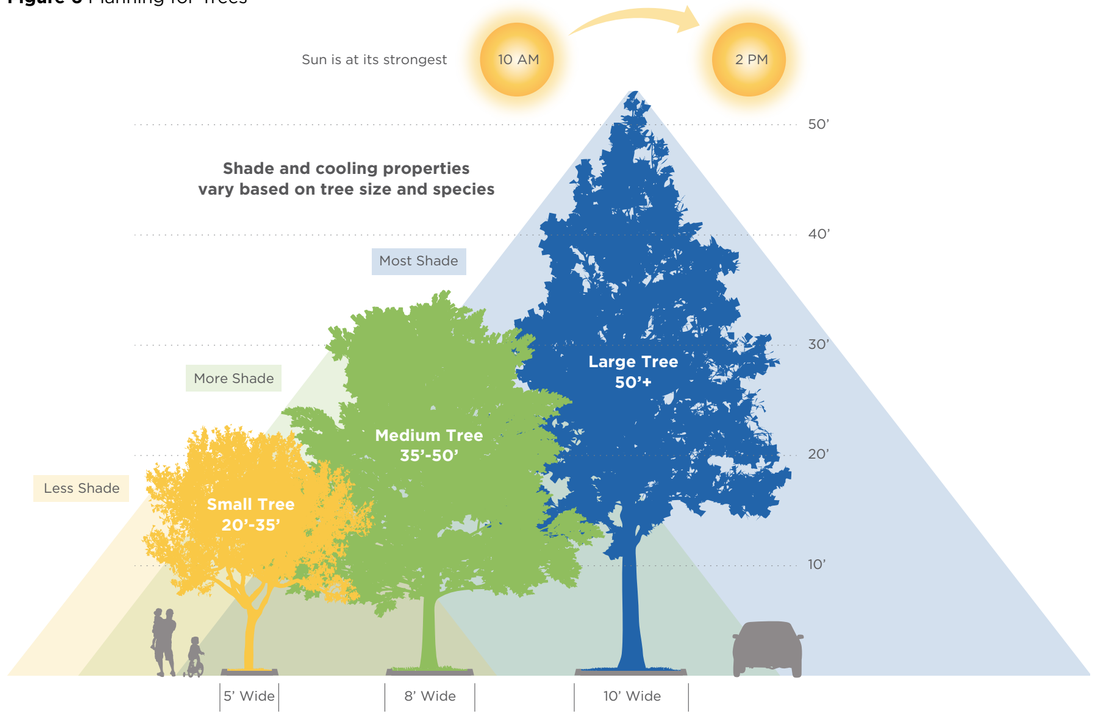
While the City owns and maintains thousands of trees, **the majority of Rancho Cordova's urban forest consists of private trees** on single-family residential lots, apartment complexes, parking lots, and commercial lands. The City's tree ordinance requires permits for removal or tree maintenance of native oak species and any tree with a trunk diameter of 24 inches or greater. However, **residents are not always aware of protected tree and permit requirements** and might unknowingly violate the ordinance. Further, not all residents know that trees need establishment care and supplemental water during their first years, and excessive pruning or absence of pruning can lead to health problems or future tree death. The lack of tree knowledge amongst Rancho Cordova residents is also a common issue for other municipal urban forestry programs.

DEVELOPMENT

Planning that does not incorporate space for mature trees is a threat to the success of the urban forest. It is also avoidable, as many of the **25,000 housing units planned for development are yet to be built, and the opportunity exists to prioritize space for medium to large-size trees that provide environmental, economic, and public health benefits**.

Figure 6 presents how varying parkway widths affect the ability to plant large shade trees. Planning for trees in advance by providing for parkways that are suitable for large trees can ultimately determine the return on investment. The benefits and services provided by trees is directly related to tree size and age. Issues related to development of existing and new areas in the City are further discussed in Chapter 4: Development and Urban Forest Protection.

Figure 6 Planning for Trees



Parkway widths determine tree size and species that can be planted



URBAN FOREST MANAGEMENT CHALLENGES

Urban Forest Management Challenges

The urban forest management challenges in this section represent overarching themes that pertain to the five focus areas of the UFMP. Each finding is discussed further in the appropriate chapter and supported by the various methods used to analyze the Rancho Cordova urban forest program.



FOCUS #1: URBAN FOREST SUSTAINABILITY

1 City managed trees are young/ immature and not yet providing a high level of environmental services:

The environmental services provided by trees increase as they mature and grow larger. Approximately 93% of City managed trees are considered immature (54%) and young (39%), and 86% of trees are small stature measuring less than 30 feet in height. The age and height distribution largely reflect a recent increase in tree planting activities since the City began its urban forest program as oppose to managing small stature species.

2 The City managed tree inventory needs increased diversity to be resilient to multiple emerging threats:

Species diversity within an urban forest is an important sustainability indicator that helps to determine how vulnerable the tree population is to potential threats like pests, diseases, drought, and extreme heat. In Rancho Cordova's City managed tree inventory, the top 5 most common species total 63% of the total inventory. If an unknown threat caused decline of one or more of these species the City could potentially lose a significant portion of its tree inventory.

3 Parks, open space, and recreation are a valued community asset:

The City of Rancho Cordova is a unique community that has abundant access to walking trails, the American River, and other natural recreation areas while being located within the urban Sacramento County region. This unique landscape is a valued asset for residents and is a significant opportunity to implement tree planting projects with multiple health and quality of life benefits. In the developing areas of the City, new residential communities are being built adjacent to large stormwater basins that may provide an opportunity to plant trees while reducing stormwater management costs of the City, creating shaded walking paths, and providing habitat for local wildlife. The Bear Hollow Stormwater Basin project completed in 2018/2019, which included the planting of 500 native trees, provides a replicable model for other stormwater basin tree planting projects in the City. Identifying these planting opportunities and developing a planting strategy that includes maintenance for the first three years after the trees are planted, will allow the City to anticipate future budget needs and apply for grant funding to support project implementation. The developed footprint of the City has an extensive network of walking trails and parks that are an important component of promoting a healthy and active lifestyle. They also provide avenues for residents to safely travel by bike or walking to places they work, shop, and recreate. With increasing annual temperatures brought on by climate change, providing healthy and extensive tree canopy cover that shades these areas is important strategy to ensure residents can continue to use trails and recreation areas during extreme heat events.

FOCUS #2: TREE MANAGEMENT AND MAINTENANCE

1 Stump removal program provides a framework for the city to expand other urban forest services to private property:

The City stump removal program will send an arborist crew to a residential property to remove tree stumps from front yards and then replace it with a free shade tree. This is a unique municipal program that uses general fund dollars to improve the aesthetic appeal and value of private properties. This program can serve as a model to further develop urban forest services that help private properties with a resource to develop mature, healthy, and safe trees in front yards of residential properties. The specific services should be determined by further engagement efforts could include tree pruning, tree planting, or installing low water use irrigation for tree establishment.

2 Better Coordination is Needed Between City Staff:

While City staff appear willing and eager to work together to achieve goals for the UF, there seems to be a lack of effective coordination/cooperation (i.e., 'silos') between departments so that they are not necessarily aware of what each other is doing that may directly influence the urban forest. Improving coordination will take direct staff input as to what processes and practices can be improved to enhance coordination around urban forest related issues, with a focus on addressing urban forest issues early on in any process (e.g., development planning).

FOCUS #3: GROWING THE URBAN FOREST

1 Unique approaches are needed for the developed and undeveloped portions of the city:

Land use in the City of Rancho Cordova is largely divided along Sunrise Blvd, with an established urban footprint to the north and west of Sunrise Blvd, and planned development for the area to the south and east of Sunrise Blvd. The differences in developed and undeveloped land use are reflected in the strategies the City implements to effectively expand canopy cover and establish and maintain healthy trees for current and future residents. The developed footprint of the City requires more focus on preserving and protecting mature trees, in addition to planting new trees with unique approaches on private property. The undeveloped area requires more focus on effectively and sustainably incorporating trees into new residential development, by reassessing minimum planting spaces required. While the strategies are specific for each situation, it will be important for the City to demonstrate an equitable level of investment into both communities to limit the perception of favoring one community over another. This will include upholding the same standards for commercial and residential development, expectations of private property owners to preserve and expand canopy cover, and planting and maintaining trees in the public space.

2 An education campaign for private property owners is needed:

Private property owners manage a significant amount of the Rancho Cordova's canopy cover. Private property owners also have the most available space to plant new trees in the City. This combination underscores the scale by which private property owners can impact the preservation and expansion of the urban forest. Increasing participation from private landowners requires an outreach and engagement strategy that demonstrates to communities that the City is making a commitment to invest the staff time and resources to understand the unique needs of smaller neighborhood segments, and is working to address those needs. This will require a mix of strategies and engagement activities like integrating urban forestry programs with other City services or developing tree related incentives and rebates. It may also require an expansion of City staff and/or increasing its partnership with the Sacramento Tree Foundation, which currently leads the urban forest related engagement efforts of the City, to dedicate more time building relationships in underserved areas.

3 Underserved neighborhoods are in need of trees:

The Office of Environmental Health Hazard Assessment (OEHHA) on behalf of the California Environmental Protection Agency (CalEPA) developed the California Communities Environmental Health Screening Tool (CalEnviroScreen) which identifies a communities vulnerability to pollution hazards based on their pollution burden and population characteristics (https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30). According to CalEnviroScreen 18% of Rancho Cordova residents are considered to have a high vulnerability to pollution hazards, with 53% having a moderate to high level of vulnerability. These neighborhoods also have a canopy cover between 7%-12%, which is below the Citywide target of 20% presented in the UFMP. The combination of a high vulnerability to pollution hazards and low canopy cover necessitates prioritizing efforts to increase the population of large healthy trees in these neighborhoods. Accomplishing this requires participation from residents, businesses and other private landowners to plant and preserve trees on private property, as there are few remaining locations in the public space for the City to plant trees.

FOCUS #4: DEVELOPMENT AND URBAN FOREST PROTECTION

1 Trees are not effectively integrated into new developments:

Expanding canopy cover in the built urban environment is often limited by planning decisions that occurred years ago and left limited space to plant trees in parkways, or on land designated as a commercial property or parking lot. It is uncommon for municipal arborists to have a relatively blank canvas with which to plan and design an urban forest. However, the planned development of approximately 25,000 new single-family home units in the City presents an opportunity to plan and design communities with extensive canopy cover that can provide a maximum level of environmental services to residents, with lower on-going maintenance costs to the City. Implementing community development and design standards, like the Sacramento Tree Foundation Green Neighborhood program, would ensure neighborhoods are built with trees that can grow to maturity, provide a high level of canopy cover, and avoid conflicts with other infrastructure.

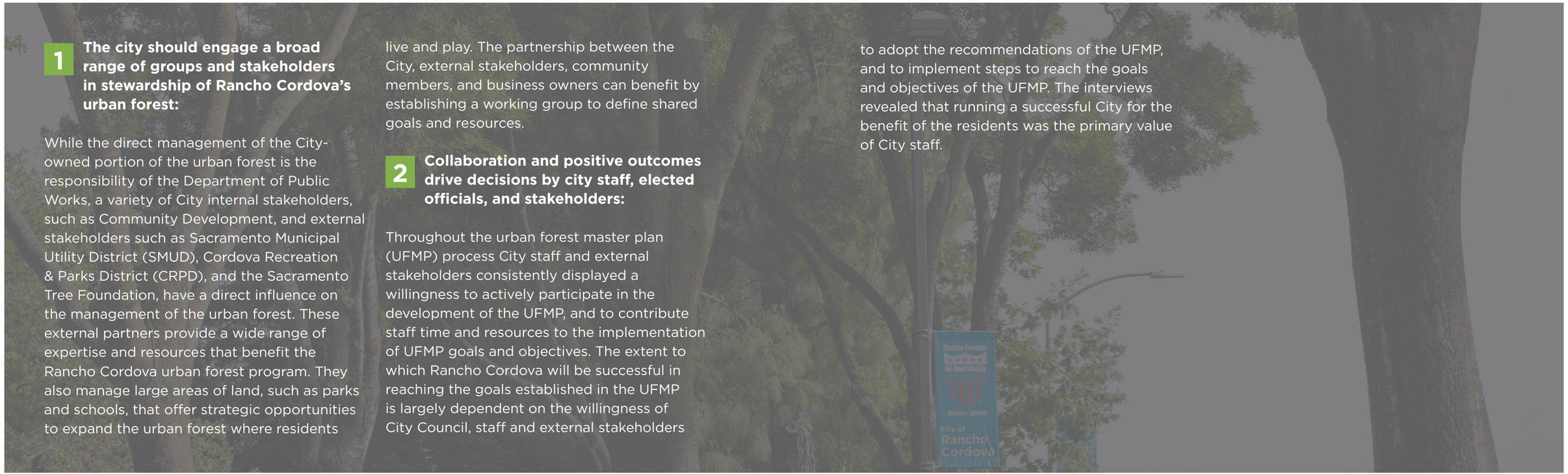
2 Tree planting plans must be included in the beginning of the planning review process:

The ability of the City to effectively integrate trees into new development in part depends on the coordination between the Department of Public Works and Community Development to create and implement design standards that will ensure trees are incorporated throughout the design process and afforded the necessary above- and below-ground growing space to reach maturity, while minimizing conflicts with other infrastructure such as roads and sidewalks, streetlights, solar panels, and underground utilities. The City is improving the site plan review process, but faces challenges from the previous lack of coordination on tree placement and species selection. This has resulted in some residential communities built in the last 15 years already experiencing conflicts between trees and sidewalks that required the removal of trees to repair the damage at a significant cost to the city. New residential home builders will need to understand how the standards impact their projects and if they will incur additional project costs or delays in development. Implementation of the new standards will be difficult without a commitment from all City staff and elected officials.

3 There is a need to increase awareness of and compliance with the City's tree protection ordinance:

The City Municipal Code Chapter 19.12 Preservation and Protection of Trees establishes policy to protect trees on private property which includes a variety of native oak species and other non-native species that meet a certain size. It was expressed by City staff in interviews and stakeholders in community engagement meetings that most private property owners are not aware of the City tree protection ordinance. This is further supported by results of the public survey that had 78% of respondents indicate that they did not know the City had an urban forest program until taking the survey. Increasing canopy cover is dependent on both preserving trees and planting new ones. It will be difficult for the City to protect the existing canopy and mature trees if residents are not aware of the regulations that limit when trees can be removed on private property and without the enforcement of replacement policies.

FOCUS #5: COMMUNITY ENGAGEMENT AND PARTNERSHIPS



1 The city should engage a broad range of groups and stakeholders in stewardship of Rancho Cordova's urban forest:

While the direct management of the City-owned portion of the urban forest is the responsibility of the Department of Public Works, a variety of City internal stakeholders, such as Community Development, and external stakeholders such as Sacramento Municipal Utility District (SMUD), Cordova Recreation & Parks District (CRPD), and the Sacramento Tree Foundation, have a direct influence on the management of the urban forest. These external partners provide a wide range of expertise and resources that benefit the Rancho Cordova urban forest program. They also manage large areas of land, such as parks and schools, that offer strategic opportunities to expand the urban forest where residents live and play. The partnership between the City, external stakeholders, community members, and business owners can benefit by establishing a working group to define shared goals and resources.

2 Collaboration and positive outcomes drive decisions by city staff, elected officials, and stakeholders:

Throughout the urban forest master plan (UFMP) process City staff and external stakeholders consistently displayed a willingness to actively participate in the development of the UFMP, and to contribute staff time and resources to the implementation of UFMP goals and objectives. The extent to which Rancho Cordova will be successful in reaching the goals established in the UFMP is largely dependent on the willingness of City Council, staff and external stakeholders to adopt the recommendations of the UFMP, and to implement steps to reach the goals and objectives of the UFMP. The interviews revealed that running a successful City for the benefit of the residents was the primary value of City staff.



STRATEGIC PLAN

The Rancho Cordova UFMP is a planning document with goals that will be achieved over a 40-year timeframe. The vision statement describes the long-term desired result of those actions. The vision statement is a guide for UFMP development and should continue to guide the City in future decisions about the urban forest and its management.

Vision Statement

Working in partnership as community members, stakeholders and the City, we will improve public health, access to nature, and environmental equity for all of Rancho Cordova through sustainable management of the urban forest.

The remaining aspects of the Strategic Plan provide goals, targets, and actions to guide the City in achieving its vision for the urban forest.

Guiding principles: Reflect the identified values of the City and community stakeholders as priorities for the UFMP.

Focus: Represent the five main overarching areas of the urban forest program.

Goals: Provide a desired outcome for the focus areas.

Targets: Measurable ways to determine if the City is progressing towards its goals.

Actions: Specific steps the City will take to achieve targets.

Guiding Principles	Definition
Access and Equity	All communities have equal access to the benefits of trees.
Healthy and Active Communities	Trees create a healthy environment for active transportation and recreation, with vibrant and diverse outdoor space and habitat for wildlife.
A City Planned for Trees	Tree species are selected for planting in the development of the urban landscape to grow to maturity without interfering with adjacent infrastructure and contribute to canopy cover goals.
Provide Resources for Sustainable Management	The City funds the urban forest program at a level to meet the goals of the UFMP.
Partnerships and Engagement	Priorities of the urban forest program are developed with and achieved by collaborating with community members and external stakeholders.
Resiliency and Climate Change	The City will develop an urban forest to thrive against current and future environmental threats.

FOCUS #1: Urban Forest Sustainability

Goal: The City-managed tree population will be resilient and prepared for climate change.

Targets	
1.1	The City tree inventory will comprise no more than 5% of one species, 10% of one genus, or 20% of one family, excluding areas with defined strategies for native or regional species.
1.2	The City recommended tree species list will comprise a minimum of 65% of trees that are known to be very-low or low water use trees by the Water Use Classification of Landscape Species rankings.

Recommended Actions	
1.A	Update the City's recommended tree species list so all trees are expected to be adapted to anticipated climate conditions. Continue to include new species into the City tree planting list that are drought tolerant, resilient to heat, and promote species diversity.
1.B	Annually complete a health assessment of mature trees to assist in determining if tree species are maintaining health and vigor in response to climate change or should be removed from the planting list.
1.C	Annually monitor the City's oak trees to ensure they remain a healthy asset.
1.D	Develop an appropriate maintenance plan to preserve tree canopy cover, and a strategy to remove and replace failing species.
1.E	Work with Sacramento County to ensure native tree species are prioritized to be planted along The American River Parkway.
1.F	Prioritize large stature trees in developing areas of the City.
1.G	Prioritize native trees in wildland areas.
1.H	Every two years conduct an audit of the City tree inventory to ensure species are predicted to be adapted to increase in heat and drought conditions in Rancho Cordova due to climate change.

FOCUS #2: Tree Management and Maintenance

Goal: Trees in Rancho Cordova will be maintained to improve the health, longevity, safety and functional capacity of the existing urban forest, and ensure that the future urban forest can reach its genetic potential to provide the full range of services in a safe and cost-effective way.

Targets	
2.1	The urban forest program will have the financial and human resources necessary to be managed at a sustainable level by increasing urban forestry funding to a minimum level of $9.40 per capita by 2035 or sooner.
2.2	The City tree inventory will maintain a minimum of 80% of trees rated as having a good or better health rating.
2.3	The City tree inventory will maintain a minimum of 80% of trees rated as having a good or better structural rating.

Recommended Actions	
2.A	Establish the City Arborist as a full-time permanent staff position.
2.B	Continue, and enhance, the Urban Forest Program Stump Removal Service program.
2.C	Develop a funding mechanism to support the watering and establishment care of newly planted City maintained trees for a minimum three-year period.
2.D	Complete a financing study of the urban forest program that provides analysis for the fiscal impact to implement the UFMP and mechanisms to fund tree management.
2.E	Increase performance auditing of City contractors to ensure work is performed to City standards.
2.F	Increase resources to support effective and proactive pest, disease and invasive species management.
2.G	Ensure the Ballot Measure H 0.5 cent sales tax increase continues to fund the Community Enhancement Fund.
2.H	Ensure Measure R becomes a source of funding for the urban forest to meet program goals.
2.I	Maintain funding for a five-year inspection and pruning cycle for City-managed trees.
2.J	Annually review the level of funding generated through in-lieu mitigation fees and appropriate funds to tree planting and establishment care projects.
2.K	Develop and apply tree maintenance specifications.
2.L	Add a tree service request functionality to the Fresh Connect online service request portal.
2.M	Ensure consistent application of tree establishment care operations for all City-managed trees including watering and structural pruning.
2.N	Implement a “3-in-10” (or better) young tree structural pruning program for City-managed trees.
2.O	Regularly review and update City tree management practices to reflect the current industry standards as defined by the International Society of Arboriculture, American National Standards Institute, and current research.
2.P	Trees planted as part of a City managed project will be inspected and approved by a qualified arborist before planting to ensure trees have good structure, no girdling roots, and are in good health.
2.Q	Enhance tree inventory to include standards-based tree risk assessment.
2.R	Develop a tree risk management policy.

2.S	Continue, and enhance application of, conservation-based tree risk mitigation.
2.T	Inspect trees for signs of decline, insect infestation, or pathogen infection. Collect samples from suspect trees and submit to a diagnostic laboratory or the Agriculture Commissioner's Office of Sacramento County.
2.U	Enhance the tree inventory to include pest and disease identification if observed.
2.V	Develop IPM-based monitoring and response plans and procedures for priority pests and diseases
2.W	Increase community awareness of urban forest pests, diseases, and invasive species

FOCUS #3: Growing the Urban Forest

Goal: Citywide canopy cover will continue to expand and be equitably distributed across all neighborhoods.

Targets	
3.1	Achieve a minimum of 20% canopy cover of all census tracts in the developed footprint of the city by 2050.
3.2	Annually plant 750 trees on residential properties through the Sacramento Shade Program that advance the city towards its canopy cover goal.
3.3	Annually plant 750 City-managed trees on public property advance the city towards its canopy cover goal.
3.4	Maintain a 95% stocking rate of all available city managed tree planting locations.
3.5	Achieve a minimum 35% canopy cover over sidewalks, streets, and front yards in all existing residential communities.

Recommended Actions	
3.A	Identify and maintain a list of all possible City managed tree planting locations including streets, city facilities, and open space areas to inform planting plans.
3.B	Increase enforcement of the city policy that requires 50% canopy cover over parking lots on commercial and industrial properties.
3.C	Develop a strategy to provide City services on trees located in the front yards of residential homes.
3.D	City-maintained stormwater basins will prioritize the planting of large stature trees and species known to support native habitat and wildlife.
3.E	City-maintained naturally occurring open space areas will prioritize the planting of large stature trees and species known to support native habitat and wildlife.

3.F	Work with local tree nurseries to ensure tree species and quantities are available to meet City tree planting goals.
3.G	Conduct an urban heat island mapping exercise of the City to determine locations that experience the greatest impact from the urban heat island effect and utilize this information to prioritize locations for increased tree planting and management activities.
3.H	Ensure all City bus stops are provided with adequate canopy cover so that passengers can safely use public transit.
3.I	Ensure all residents have access to parks and schools with a high level of canopy cover.
3.J	Prioritize tree planting activities towards to streets that feed into schools and parks.
3.K	Prioritize the use of large stature trees in areas of high-density housing where parklets are designed as a community feature.
3.L	Assess and identify neighborhoods with low canopy cover and focus tree planting activities in these locations.
3.M	Plant trees along populated walkways and thoroughfares that provide access to bus stops and other forms of public transportation.
3.N	Complete an updated City-wide canopy cover study every 3-5 years.
3.O	Prioritize tree planting efforts towards neighborhoods with the lowest level of tree canopy cover and those identified by CalEnviroScreen 3.0 as having a high vulnerability to pollution hazards.

FOCUS #4: Development and Urban Forest Protection

Goal: The City will ensure that development projects are directed towards meeting urban forest program goals and that planning decisions are guided by arboricultural knowledge and expertise.

Targets	
4.1	City planning documents will be updated by 2025 so they include trees and urban forestry elements that contribute to achieving City canopy cover goals.
4.2	All review and permit processes that include tree related decisions will incorporate the expertise of an objective certified arborist by 2022.
4.3	All new residential communities will be designed and built to achieve a 35% canopy cover over the entire community within 30 years.

Recommended Actions	
4.A	Update all Specific Plans to reflect the goals and strategies presented in the UFMP.
4.B	Revise Design Guidelines to allow planter strips to separate sidewalks from the street edge in areas with high pedestrian activity.
4.C	Review and update the parking lot shading requirement so it is directed towards encouraging the planting of large stature shade trees and providing the soil volume needed for healthy growth.
4.D	Review and update the General Plan based on goals, standards, and recommendations presented in the UFMP.
4.E	Pedestrian Master Plan and Bicycle Master Plan - Update both documents to incorporate trees and strategies of the UFMP. Shading of walking trails, bike paths, and other avenues for non-vehicular travel.
4.F	Update the City design guidelines to include the use of alternative sidewalk design methods if the minimum parkway width or soil volume levels cannot be achieved through existing conditions.

4.G	Develop mechanisms that require or incentivize trees to be preserved during site development when feasible.
4.H	Review the tree replacement ratios to ensure they replace lost canopy over a shorter time frame and promote the use of medium to large stature trees.
4.I	Include trees in the first stages of community development so the size of planting space available for street trees can accommodate large stature trees.
4.J	Revise City standards so all new development, including new residential home communities, will be designed with parkways that are a minimum of 8’ in width between the curb and sidewalk.
4.K	Create standards that maximize the potential for energy efficient homes and communities by ensuring trees can shade and cool homes/buildings without interfering with the ability of solar panels to generate energy.
4.L	Develop the process for new residential home communities to receive certification as a ‘Green Neighborhood’ through the Sacramento Tree Foundation Green Neighborhood program as a condition of approval for development.
4.M	Revise City standards so all tree planting projects and development plans for new residential home communities will select tree species based on the city recommended tree species list and comply with standards for tree spacing and species diversity.
4.N	Require certified arborists to complete tree surveys and reports submitted to the city for development projects
4.O	Include City arborist or on-call third party consulting arborist review of all tree surveys and reports submitted to the city.
4.P	Include City arborist or on-call third party consulting arborist review of all tree removal permit applications.
4.Q	Include City arborist or on-call third party consulting arborist review of all development plans in the initial stages of planning so there is ample time to update plans to meet the recommendations of the arborist review.
4.R	Update the process for emergency conditions so a City designated certified arborist who is ISA Tree Risk Assessment Qualified is required to decide the appropriate response to tree emergencies.
4.S	Update the plan and review process for development projects to state that the City arborist must verify that tree planting plans match the approved plan and have the authority to reject any trees that do not meet American Standards for Nursery Stock (ANSI Z60.1)

FOCUS #5: Community Engagement and Partnerships

Goal: The City of Rancho Cordova will have an engaged citizenry who benefit equally from the benefits and services provided by trees and meaningful partnerships to gain support for and further define the priorities of the urban forest program.

Targets	
5.1	Annually have a minimum of 1,000 community stakeholders participate in urban forest programs.
5.2	Annually a minimum of 500 trees will be planted in diverse communities as well as disinvested parts of the City on both public and private property.
5.3	City partnerships with other government and private landowners will result in a 50% increase in canopy cover on non-City managed property by 2050.
Recommended Actions	
5.A	Develop an education and outreach program that provides residents with training and information on proper tree care and maintenance.
5.B	Maintain a list of trusted arborists and tree trimming companies that residents should use.
5.C	Increase awareness of the urban forest program through an expansion of community engagement efforts through City communications and the Sacramento Tree Foundation.
5.D	Hold community events throughout the year to increase stakeholder participation in the urban forest program and further engagement in refining UFMP strategies and implementation.
5.E	Develop print, social media, and web-based engagement platforms to update community stakeholders and City departments on implementation of the UFMP and other urban forest program activities.
5.F	Increase public awareness of the tree preservation ordinance.
5.G	Conduct outreach to property managers of apartment complexes, single-family homes, and other residential dwellings to encourage participation in the urban forest program.
5.H	Develop relationships with community leaders that are inclusive of the diverse demographics of the City and implement in-person, culturally competent engagement activities to targeted demographics and communities when feasible.
5.I	Ensure tree planting programs address the long-term maintenance costs of trees, especially in disadvantaged communities.
5.J	Provide the resources to have a full-time Sacramento Tree Foundation staff member dedicated to supporting City community engagement efforts and expansion of the urban forest.
5.K	Explore an expansion of the partnership between SMUD, SacTree, and the City to determine if other opportunities exist to benefit community members.
5.L	Increase coordination between SMUD and the City on utility line clearance pruning, and in the planning, design, and implementation of future projects to prevent future tree/infrastructure conflicts.
5.M	Partner with Cordova Recreation and Parks District (CRPD), Folsom Cordova Unified School District (FCUSD), Twin Rivers Unified School District, and Sacramento City Unified School District on a grant application to fund a complete inventory of all CRPD managed park trees and school disctrict managed trees.
5.N	Collaborate with CRPD and FCUSD on grant applications to support tree planting, establishment care, and tree inventory activities.
5.O	Develop an interagency working group between SacTree, SMUD, CRPD, FCSD, other relevant agencies and the city to coordinate urban forestry activities throughout Rancho Cordova.
5.P	Develop an urban forest advisory committee consisting of City staff, the City arborist, Sacramento Tree Foundation, and community stakeholders to guide the implementation of the UFMP. Ensure the advisory committee leverages existing urban forest-related volunteer and community engagement efforts to expand the City's community partnerships
5.Q	Collaborate with CRPD and FCUSD to develop a tree planting palette that is aligned with city recommendations and prioritizes trees that support native habitat and wildlife.

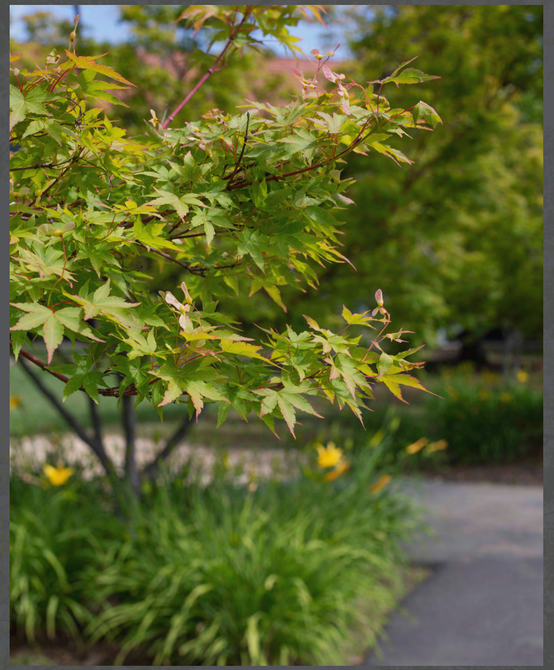
PART 2:

TECHNICAL ASSESSMENT



DEVELOPING THE RANCHO CORDOVA URBAN FOREST MASTER PLAN

Developing the Rancho Cordova Urban Forest Master Plan (UFMP) was a collaborative process facilitated by the Department of Public Works and consultant team and included extensive input from Sacramento Tree Foundation (SacTree) staff, City arborist and community stakeholders. The process began in January 2020 and includes research and analysis of the multiple layers that comprise urban forest program management and to understand the current condition of Rancho Cordova's urban forest. The UFMP was further informed by community engagement efforts to learn the values and priorities of Rancho Cordova stakeholders to guide the creation of strategic goals and objectives. The following sections describe the various methods used to develop the UFMP.



Working Group Meetings

The consultant team, Department of Public Works staff, City arborist, and SacTree staff met once per month throughout the project to discuss key issues, plan and prepare for next steps in UFMP development, and review project deliverables. The monthly meetings provided an opportunity for the consultant team to relay key findings to the working group and to receive further information and clarification on subject details. The monthly meetings ensured that all members of the working group would have a set time to meet and collaborate on development of the UFMP.

Stakeholder Interviews

Developing a UFMP does not only involve static information and data that can be researched, gathered, and analyzed. Additional information rests in the firsthand knowledge and experience of the various actors that directly manage trees, authorize tree related permits, engage the community, or complete projects that impact trees. To ascertain this information the consultant team conducted a total of 12 interviews with internal and external stakeholders including:

- Vice Mayor Donald Terry
- Council Member Linda Budge
- Council Member David M. Sander
- Dept. Of Public Works – Operations & Maintenance
- Dept. Of Public Works – Stormwater Division
- Community Development Department
- City Arborist
- Sacramento Tree Foundation (SacTree)
- Sacramento Municipal Utility District (SMUD)
- Cordova Recreation and Parks District (CRPD)
- Folsom Cordova Unified School District (FCUSD)
- Residents

The stakeholder interviews highlighted several areas of urban forest management that have limited the effectiveness of City efforts to grow and maintain healthy trees. Particular attention was given to the development review process with several conversations emphasizing the need for a comprehensive review of how trees are included in new residential communities and whether site plans provide enough room for trees and other infrastructure. Additionally, community stakeholder interviews revealed barriers residents face to planting and maintaining trees on their property, a desire for shaded park/recreation areas and transportation corridors, and a high priority to increase native tree species for their contribution to wildlife habitat. Interviews with external stakeholders showed a willingness and interest from outside agencies to partner with the City on grant applications and coordinate urban forest program goals.

Community Engagement

A guiding principle for development of the UFMP was to have the goals and objectives of the UFMP reflect the needs and priorities of those who are affected by city tree management. One aspect of community engagement was the previously discussed stakeholder interviews which included an interview with three community members who actively participate in City urban forest programs. The initial plan to engage a larger audience was to hold in-person meetings with community members, but this plan was eventually changed to an online video webinar platform with the onset of the COVID-19 pandemic and State restrictions on in-person gatherings. The project team would hold two online webinars in December of 2020 attended by 18 participants, which allowed stakeholders to express their vision for the Rancho Cordova urban forest, and describe the barriers they face to achieving the vision at their home and local neighborhood. Multiple online platforms were also created to facilitate participation from stakeholders. A project webpage was created with educational materials, information on upcoming outreach activities, and a contact form to submit questions directly to the project team. A project video was produced and shared through City social media platforms to encourage participation in the public meetings. Finally, an online survey was created to gather input from a wide range of community members, which resulted in 236 responses.

Urban Forest Management Practices

The review of City urban forest management practices included all departments that impact trees on both public and private property, and the internal protocols and processes used to make decisions on tree related issues. The review examined funding and staffing levels, opportunities to enhance coordination between departments, and whether management practices are progressing the City toward a sustainable urban forest. The review also included all ordinances, policies, permits, and documents that influence the management of trees,

such as the General Plan, municipal code, community specific plans, and tree preservation ordinance. Finally, the consultant team reviewed the tree management practices of city contractors who plant, maintain, prune, and remove trees against the standards developed by the International Society of Arboriculture and American National Standards Institute (ANSI).

Status of the Urban Forest

The status of the urban forest contains a discussion of two main subjects; the condition of trees managed by the City, and the extent of canopy cover. The condition of City-managed trees takes inventory data for specific tree characteristics like health condition, diameter at standard height (DSH), and species composition and compares it to sustainability standards developed by urban forest researchers. The data presented in the UFMP provides a quantifiable baseline for the city to measure towards urban forest sustainability. The data can be used to determine the effectiveness of management practices and how City resources should be allocated. The study of city-wide canopy cover analyzed aerial spatial imagery with artificial intelligence machine learning to classify land use types and the extent of tree canopy cover in the City. The resulting canopy cover study and land use classification are important tools to understand where trees need to be planted and establish long-term tree planting goals.





CHAPTER 1
URBAN FOREST SUSTAINABILITY

1.1 Defining Urban Forest Sustainability In Rancho Cordova

An urban forest consists of all trees found throughout the streets, parks, medians, and public and private property within the City. Residents who live in areas surrounded by healthy mature trees receive ongoing benefits. Not only do trees provide aesthetically pleasing neighborhoods, shade, and cooling effects, they also provide a range of economic, social, and environmental benefits that provide measurable services to communities (McPherson et al. 2017).

To establish a foundation to measure the sustainability of an urban forest, Clark and collaborators (1997) developed a model that is widely used by **urban foresters** and **arborists** (Clark et al. 1997). The model for urban forest sustainability is based on three components: the vegetation resource, the community framework, and the resource management approach. The condition of the vegetation resource is measured by the diversity of species, health, age distribution, **canopy cover**, and other indicators that impact the continuity of environmental benefits. The sustainability indicators discussed throughout this chapter are used to understand at what level the urban forest is functioning, and to provide a framework that the City can use to measure progress. These analyses will inform the management practices and long-term planning strategies that the City will need to implement to progress towards urban forest sustainability.



1.2 Tree Inventory Analysis

Rancho Cordova's street tree inventory was conducted in January 2016. The analysis includes data for 3,910 City-owned street trees, including 43 genera and 76 species. The tree inventory is updated on an on-going basis when trees receive maintenance and when new trees are planted.

1.2.1 Urban Forest Services and Benefits

A city's urban forest can have a direct impact on the health and well-being of its residents. Trees improve the quality of city streets by providing shade and cooling and have been linked to mental health benefits such as stress reduction and elevated mood (Astell-Burt and Feng 2019). Quality green space within a city can also help build communities, increase neighbor interactions, and improve social connections (Kuo et al. 1998). In addition to these social and physical health benefits, trees provide a significant number of environmental services and benefits and hold real economic value for the City of Rancho Cordova. The benefits received from trees increases as trees grow. Thus, maintaining healthy trees that increase in size with age is an important part of maximizing benefits to the community (see **Figure 1-1**).

1.2.1.1 ENVIRONMENTAL SERVICES AND BENEFITS

To help quantify how important and valuable trees are to communities, the U.S. Forest Service developed the software **i-Tree Eco** (USFS 2020). The program uses individual tree characteristics provided in an inventory to determine environmental benefits of a city's street trees, both in terms of quantity and economic value. The estimated environmental services provided by trees in the inventory are presented in **Table 1-1**. Carbon sequestration is the amount of carbon the City's inventoried trees remove from air. Avoided runoff represents how much rainfall is diverted from the stormwater management system by the canopy of trees, and air pollution removal includes removing particulate matter and surface level ozone.The environmental services quantified by i-Tree are important, but they do not reflect the entire value of the urban forest experienced by communities.

The environmental services of trees are also felt on a local, street-by-street or home-by-home basis, where tree canopies increase property values and provide shade, cooling, stormwater reduction, and improved public health outcomes. These services contribute to the quality of life in the City and are opportunities to encourage

Figure 1-1 Tree Benefits Increase with Size and Age

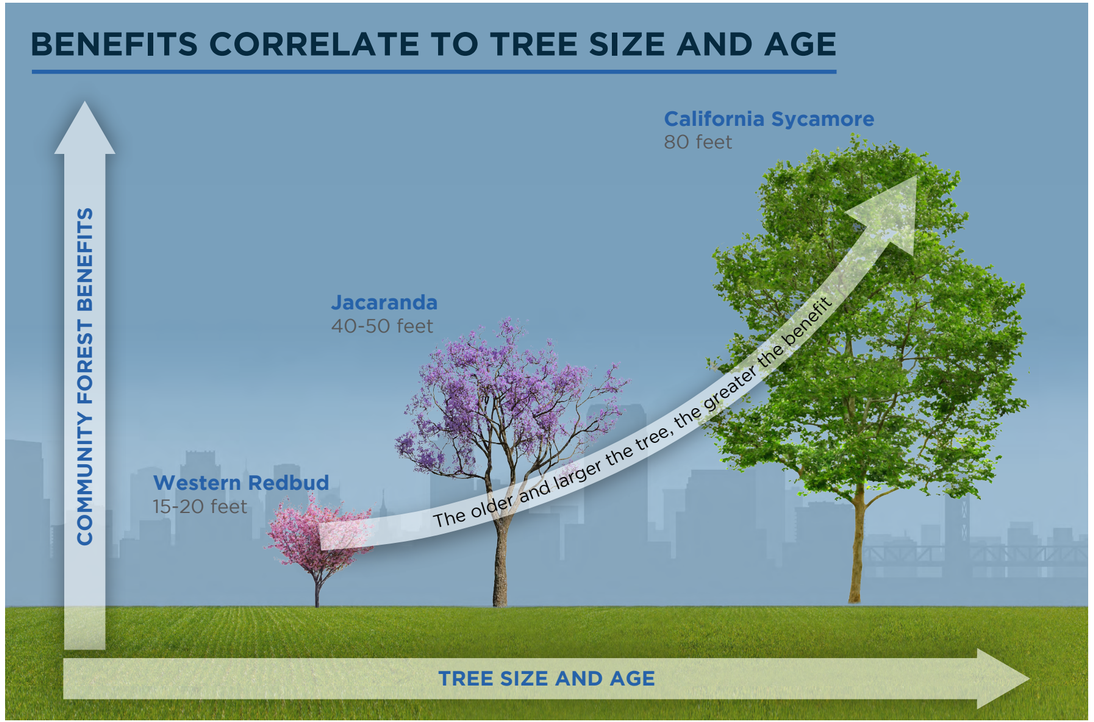


Table 1-1: Annual Environmental Services Provided by Rancho Cordova's Tree Inventory

Service	Annual Environmental Benefit (tons)	Annual Environmental Impact	Annual Economic Value
Carbon Storage (carbon held in tree)	832.3 tons	The carbon stored in the City's urban forest is equivalent to the carbon emitted from 659 cars driven for 1 year.	$141,951
Carbon Sequestration (carbon removed from air)	28.5 tons	The carbon removed from the City's air by the urban forest is equivalent to an average passenger vehicle driving 259,305 miles.	$4,870
Avoided Runoff	16.71 cubic feet	This benefit is the equivalent of 125 gallons of water per year	$1,120
Air Pollution Removal	869.2 lbs/year	Currently, 3.2 million people die worldwide annually from air pollution; this number could rise to 6.2 million by 2050.	$980

Source: City of Rancho Cordova Tree Inventory and i-Tree Analysis (USFS 2020).

residents and business owners to participate in urban forest programs.

1.2.1.2 ECONOMIC VALUE

When considering the value of the City's inventoried trees, the **structural value** represents what it would cost to replace all trees with the same species, size, and health condition (**Table 1-2**). Each tree is a City asset and has an average individual value of $1,823.

The **functional value** (**Table 1-2**) represents the annual value of the environmental benefit that the trees provide. Not captured in this analysis are the values of energy savings and avoided emissions from energy production. These values can be generated in i-Tree Eco, but this analysis requires data not available in the inventory. The inclusion of these values would likely significantly increase the functional value of the trees, as energy savings is typically one of the largest economic values of a tree.

Table 1-2: Financial Value of Rancho Cordova's Tree Inventory

Value	Description	Asset Amount	Per-Tree Value
			Rancho Cordova 3,910 trees
Structural	Tree replacement cost	$7.13 million	$1,823
Functional	Value based on the services trees perform	$6,970/ year	$1.78

Source: City of Rancho Cordova Tree Inventory (West Coast Arborists 2019) and i-Tree Analysis (USFS 2020).

1.2.1.3 SPECIES DIVERSITY

The species diversity of a city's urban forest is an important factor when considering its overall resilience to threats. Because biological diversity is often regarded as the basis for ecological stability (Tilman and Downing 1994), cities with less diverse urban forests are more likely to suffer from catastrophic loss when invasive pests and pathogens enter a landscape or when significant weather events impact a community. While not all introduced invasive species result in a destructive loss to urban forests, an important strategy to prepare for the next introduced pest or pathogen is to foster a diverse urban forest.

A frequently used sustainability metric that urban foresters follow that is a city's tree inventory should contain no more than 5% of any one species, 10% of any one genus, and 20% of any one family (Miller and Miller 1991; Richards 1993; Ball 2007). Although these recommendations are not steadfast, they can provide aspirational species diversity guidelines for which the City should strive.

Rancho Cordova's inventory of City-owned street trees consists of 3,910 trees, composed of 28 families, 43 genera and 76 species. The top 10 families make up 95% of the City-owned trees (**Table 1-3**). *Fagaceae* is the only family to fall outside the 20% recommendation. The top 10 tree genera make up 91% of City-owned trees (**Table 1-4**). While many of the top genera fall within the 10% recommendation, *Quercus, Lagerstroemia, Pistacia, and Platanus* all exceed the recommendation and represent 74% of the inventory. The top 10 species found in the City comprise 82% of the inventory, and the top five species (*Lagerstroemia indica, Pistacia chinensis, Platanus x hispanica, Quercus lobata*, and *Quercus wislizeni*) make up 63% of the inventory and each are in excess of 5% (**Table 1-5**).

Table 1-3: Top 10 Families in Rancho Cordova's Tree Inventory

Family Diversity Sustainability Goal: No Family Greater than 20% of Inventory			
Rank	**Genus**	**Number of trees**	**% of Inventory**
1	*Fagaceae*	1269	32%
2	*Lythraceae*	705	18%
3	*Anacardiaceae*	616	16%
4	*Platanaceae*	424	11%
5	*Ulmaceae*	232	6%
6	*Rosaceae*	226	6%
7	*Fabaceae*	80	2%
8	*Juglandaceae*	64	2%
9	*Pinaceae*	42	1%
10	*Sapindaceae*	37	1%
	Total	3695	95%

Source: City of Rancho Cordova Tree Inventory (West Coast Arborists 2016)

Table 1-4: Top 10 Genera in Rancho Cordova's Tree Inventory

Genus Diversity Sustainability Goal: No Genus Greater than 10% of Inventory			
Rank	**Genus**	**Number of trees**	**% of Inventory**
1	*Quercus*	1,269	32%
2	*Lagerstroemia*	705	18%
3	*Pistacia*	501	13%
4	*Platanus*	424	11%
5	*Zelkova*	205	5%
6	*Pyrus*	120	3%
7	*Sequoia*	108	3%
8	*Prunus*	97	2%
9	*Cercis*	67	2%
10	*Juglans*	58	1%
	Total	3,554	91%

Source: City of Rancho Cordova Tree Inventory (West Coast Arborists 2016)

Table 1-5: Top 10 Species in Rancho Cordova's Tree Inventory

Species Diversity Sustainability Goal: No Species Greater than 5% of Inventory					
Rank	**Botanical Name**	**Common Name**	**Tree stature at maturity**	**Number of trees**	**% of Inventory**
1	*Lagerstroemia indica*	Crape myrtle	*Small*	705	18%
2	*Pistacia chinensis*	Chinese pistache	*Medium*	501	13%
3	*Quercus lobata*	Valley oak	*Large*	475	12%
4	*Platanus X hispanica*	London plane	*Large*	424	11%
5	*Quercus wislizeni*	Interior live oak	*Large*	361	9%
6	*Zelkova serrata*	Sawtooth zelkova	*Large*	205	5%
7	*Quercus agrifolia*	Coast live oak	*Large*	200	5%
8	*Pyrus calleryana*	Ornamental pear	*Medium*	120	3%
9	*Sequoia sempervirens*	Coast redwood	*Large*	108	3%
10	*Quercus douglasii*	Blue oak	*Large*	91	2%
			Total	3,190	82%

Source: City of Rancho Cordova Tree Inventory (West Coast Arborists 2016)

Recent research (McBride and Lacan 2018) may help Rancho Cordova plan for its hotter, drier future. The study used existing research that predicted how hot certain cities in California will be in 2099. It then identified cities in California that currently had hotter climate and compared the tree inventories to understand if there were differences between the street tree species represented in each city. Yuba City and Stockton are the two cities included in the study that are the closest to Rancho Cordova's climate conditions, and they are compared to El Centro and Barstow, respectively. Of the 15 most common street tree species in Yuba City, none grow in El Centro, while six of Stockton's 13 most common tree species do not grow in Barstow. Further, tree species that either do not grow in the hotter comparison city or show signs of being in poor health due to water needs or heat factors include crape myrtle (Lagerstroemia indica), coast redwood (Sequoia sempervirens), London plane (Platanus X hispanica), ornamental pear (Pyrus calleryana), and Chinese pistache (Pistacia chinensis). These trees make up the majority of Rancho Cordova's tree inventory.

Based on these analyses, the City's urban forest lacks appropriate tree species diversity and may be vulnerable to threats to its health and sustainability. The inventory data also presents specific challenges for oaks that make up 32% of the City's inventory. Though many of the oaks are native to the area, oak pests and diseases such as the Mediterranean oak borer and sudden oak death pose a risk to trees in the Sacramento valley. Native trees can be prioritized for future plantings, although care must be taken to ensure the species selected are not already over-represented in the inventory and are well suited to the planting site. Oaks can be prioritized for open space, restoration sites, and other natural areas where native habitat is a priority over species diversity. The City will also need to be prepared for the predicted changes to weather and climate as the average temperatures in the Sacramento Valley increase due to climate change. McBride and Lacan (2018) suggest that crape myrtle, London plane, coast redwood, and Chinese pistache trees may have difficulty adapting to future warming trends that are predicted for the Sacramento Valley.

1.2.1.4 AGE DISTRIBUTION

Understanding the overall age distribution of the City's urban forest can better prepare arborists, policy makers, and maintenance workers for funding and management decisions needed as the trees age (Morgenroth et al. 2020).

Richards (1983) established ideal DSH distributions for street trees and these metrics are frequently used when analyzing age classes of urban forests (**Table 1-6**). The rationale behind Richards' distributions ensures that an urban forest has a population of immature trees (40%) to replace aging ones, young (30%) and middle-aged (20%) trees to provide the bulk of economic and environmental benefits, and relatively fewer mature trees (10%) that have most of their life behind them but provided significant environmental benefits for many years.

Table 1-7 shows the age distribution of all trees in the City inventory, contrasted against Richards' recommended DSH distributions. These age categories can only be considered an estimate, as DSH does not always indicate age. For example, crape myrtle, the dominant tree in Rancho Cordova's inventory, is a small stature tree, and at full maturity rarely has a DSH that is greater than six inches. Approximately 92% of Rancho Cordova's trees are classified as immature or young, compared to the recommended 70%.These age distributions are not generally indicative of poor management practices, as the City was developed



Table 1-6: Recommended Urban Forest Distribution by DSH Measurements and Age

DSH (inches)	Description	Asset Amount
0 –6	Immature	40%
7 –18	Young	30%
19 –24	Middle-aged	20%
25–30+	Mature	10%

Source: Adapted from Richards (1983).

Table 1-7: Age Distribution of Rancho Cordova's Tree Inventory

Age Category	Recommended Percentage of Tree Inventory	Number of Trees	Percentage
Immature	40%	2,130	54%
Young	30%	1,513	39%
Middle-aged	20%	156	4%
Mature	10%	110	3%

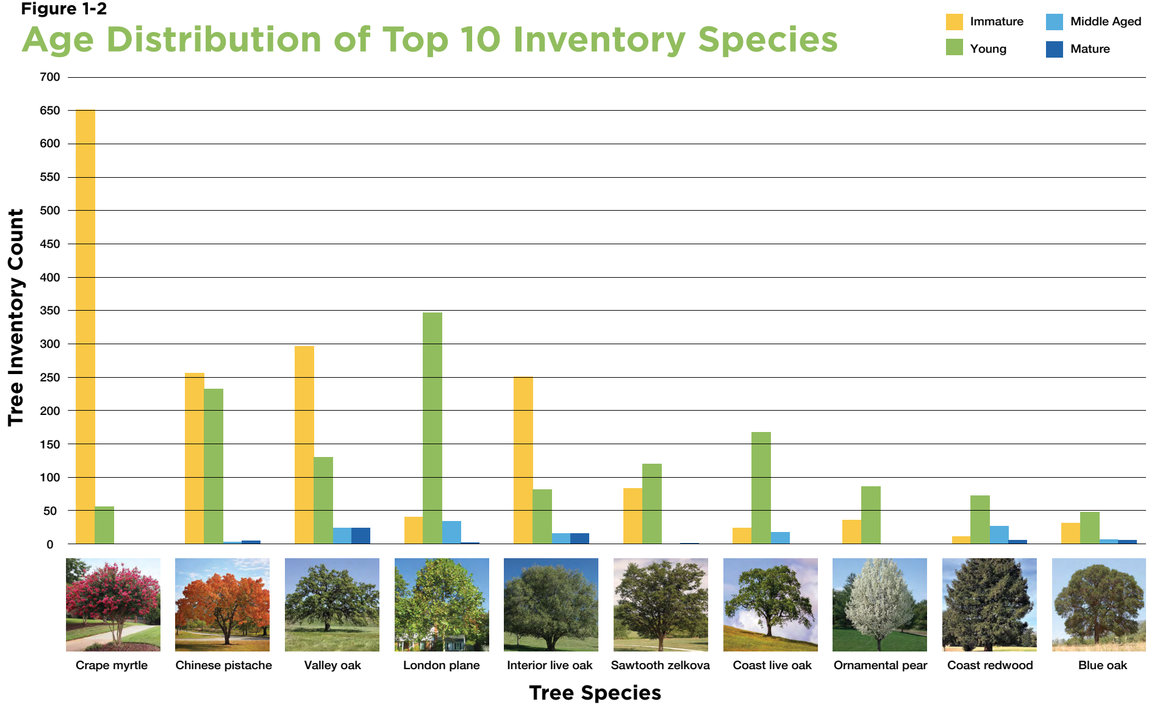
Source: City of Rancho Cordova Tree Inventory



in an area that was largely devoid of trees and recently increased tree planting activities. Most City-managed trees have been planted since the date of incorporation (2003), and so they have not had a significant amount of time to grow to large stature and maturity.. Trees with larger DSH measurements contribute greater environmental services to cities (Maco and McPherson 2003; Kowarik 2011; CUFR 2005; Nowak and Aevermann 2019). As a result, cities like Rancho Cordova that are dominated by younger and/or small stature trees such as crape myrtle experience a lower return on environmental services. The City can expect trees' environmental services to significantly increase as the current tree population ages and tree size increases. A continued investment in tree planting and existing tree maintenance will be needed to ensure a sustainable age distribution is retained.

Considering age distributions by species can help plan for the maintenance requirements of the tree inventory as it matures (**Figure 1-2**). Chinese pistache, crape myrtle, interior live oak (Quercus wislizeni), and valley oak (Q. lobata) are all primarily immature, while London plane are mostly young. **Table 1-7** shows that while there are

Figure 1-2



relatively few middle-aged or mature trees, those that do exist are predominantly coast redwood, London plane, and valley oaks.

The current age distribution of the tree population suggests most trees would benefit from structural pruning to remove defects such as co-dominant stems and crossing branches. This is also supported by **Table 1-8** which reflects the heigh distribution of the tree population showing 55% of trees are less than 15 feet and 86% are less than 30 feet. Structural pruning to correct defects when trees are young can help to avoid more costly pruning to correct these issues as the trees mature. While there are relatively few mature or large trees (5% of tree population), they provide significantly more environmental services than immature and young trees and are a priority for tree preservation efforts. Coast redwood, London plane, and valley oak trees may require less pruning as they have a developed crown, but a greater need for health and risk assessments to understand if they are maintaining a safe condition. Maintaining the middle-aged and mature trees will allow time for the rest of the inventory to mature, increase canopy cover, and develop an age distribution that aligns with the recommended size class distribution.

Because the majority of trees (93%) will largely move through the same age classes at the same time, encouraging City leadership to plan for an increased tree maintenance budget will be an important step to managing a sustainable urban forest (Morgenroth 2020). The City

Table 1-8: Height Distribution of Trees in the Inventory

Height (feet)	Size Classification	Number of trees	Percent of Inventory
0–15	Small	2,155	55%
16–30	Small	1,213	31%
31–45	Medium	330	8%
46–60	Large	160	4%
60+	Large	51	1%

Source: City of Rancho Cordova Tree Inventory

cannot speed up the aging process of trees, but it can control the schedule of how and when trees are planted to protect City resources for future maintenance needs. Over the next five years, the tree population will benefit from management efforts that focus on the successful establishment of young trees, including proper irrigation, mulching, and soil conditions. Successfully progressing young trees towards maturity will in turn increase the City's annual pruning and maintenance costs over the next five years and beyond. Finally, achieving an ideal age distribution of the tree population is also dependent on continuing to plant new trees and replacing aging trees.

1.2.1.5 TREE CONDITION

To determine the condition composition of the inventory, arborists visually assessed trees and assigned each a rating based on characteristics of condition and canopy structure (**Table 1-9**). Additional health characteristics determined by diagnostic testing such as internal decay probing and root excavations were not conducted.

Table 1-9: Tree Inventory Condition Categories

Good	Tree exhibits normal health and/or canopy structure
Fair	Tree exhibits minor deficiencies in health and/or canopy structure
Poor	Tree exhibits significant deficiencies in health and/or canopy structure
Dead	Tree is no longer viable and should be removed

Table 1-10: Condition of Tree Inventory

Tree Condition	Number of Trees	Percent
Good	1,162	29.7%
Fair	2,659	68.0%
Poor	78	2.2%
Dead	4	0.1%

Source: : City of Rancho Cordova Tree Inventory (West Coast Arborists 2016).

Table 1-11: Condition of Tree Inventory by Age and Diameter at Standard Height (DSH)

Tree Condition	**Immature** 0–6 inches	**Young** 7–18 inches	**Middle Aged** *19–24 inches*	**Mature** *25+ inches*
Good	28.0%	0.9%	0.3%	0.5%
Fair	25.7%	37.0%	3.5%	1.9%
Poor	0.5%	0.8%	0.2%	0.4%
Dead	0.1%	0.0%	0.0%	0.0%

Source: Richards 1983 and City of Rancho Cordova Tree Inventory (West Coast Arborists 2016).

Based on the tree inventory assessments, 97.6% of trees are rated "good" or "fair" (**Table 1-10**). However, the analysis of trees by age class reveals that nearly all trees rated "good" consist of immature trees; see **Table 1-11**. While it is possible that the condition ratings reflect the actual health condition of City-managed trees, use of the good and fair health ratings needs to be better understood to determine why trees in good health are almost entirely 0 to 6 inches DSH trees, and the "fair" category describes nearly all other ages of trees. An inventory of nearly 4,000 trees would be expected to exhibit a more normal distribution in the assessment of health relative to tree size.

The relative performance index (RPI) for each species can help identify species that are doing well and species that may need further analysis to determine appropriate management actions to maintain vigor. Species RPI is calculated by taking the percentage of trees in a single species that were inventoried in "good" condition and dividing it by the percentage of all trees that were assessed in "good" condition. Trees with an RPI of 1 or higher are performing as well or better than the overall tree population. Trees with an RPI less than 1 are performing below the overall population. Below is an example, and the RPIs for the top 10 most abundant tree species in the

inventory are presented in **Table 1-12**: Valley oak (64% good) ÷ All species (30% good) = 2.13 RPI.

One indicator of urban forest sustainability is to have the top six species in the tree inventory with an RPI of 1.0 or greater. **Table 1-12** shows that only valley oak and interior live oak have an RPI of greater than 1.0. It is also important to consider the evidence presented in Table 1-11 that almost all trees in the inventory that were marked as "good" were immature trees. The RPIs of species that have more young, middle-aged, and mature trees (**Figure 1-2**) could not be over 1.0 based on the distribution of health ratings to size classifications. As such, RPI may not be a relevant sustainability measure for Rancho Cordova using the existing tree inventory, and further clarification is needed, on the methods used to assess tree condition ratings.

Table 1-12: Relative Performance Index of the Top 10 Species in the City's Inventory

Relative Performance Index (RPI) Goal: Top 6 Species Have an RPI Score of 1.0 or Higher					
Rank	**Botanical name**	**Common name**	**Number of Trees Rated in Good Condition**	**Percent of Trees Rated in Good Health**	**RPI**
City Inventory			1,162	30%	0.30
1	*Lagerstroemia indica*	Crape myrtle	147	21%	0.70
2	*Pistacia chinensis*	Chinese pistache	145	29%	0.97
3	*Quercus lobata*	Valley oak	302	64%	2.13
4	*Platanus X hispanica*	London plane	7	2%	0.06
5	*Quercus wislizeni*	Interior live oak	218	60%	2.0
6	*Zelkova serrata*	Sawtooth zelkova	40	20%	0.67
7	*Quercus agrifolia*	Coast live oak	7	4%	0.13
8	*Pyrus calleryana*	Ornamental pear	4	3%	0.1
9	*Sequoia sempervirens*	Coast redwood	2	2%	0.07
10	*Quercus douglasii*	Blue oak	14	15%	0.50

Source: City of Rancho Cordova Tree Inventory and i-Tree Analysis (USFS 2020).

1.2.1.6 IMPORTANCE VALUE

The importance value of tree species is another way to show which species have the greatest impact on Rancho Cordova's tree inventory and the City as a whole. The importance value considers the percentage of the species in the population of City-owned trees and its corresponding percentage of leaf area. These two percentages are added together to determine the importance value (**Table 1-13**).

The trees with the highest importance values include London plane, valley oak, and crape myrtle. London planes and valley oaks make up a significant percentage of the inventory, and their large canopies and statures make for the highest importance values. By contrast, crape myrtle is the highest percentage of the inventory, but their small size has a corresponding smaller leaf area. There are half as many interior live oaks as crape myrtles in the inventory, yet the importance values of these two species are similar, because interior live oak is a large stature tree. Considering the importance values of species, if large-stature trees are prioritized in future planting plans and development projects, the City can expect a higher return on its investment into the tree population and greater provision of urban forest services and benefits. Ultimately, species selection is informed by multiple factors that determines what tree is right for the location. Prioritizing large trees to increase canopy cover and environmental services also requires a commitment from the City to provide the space for tree canopies to reach maturity without interfering with existing infrastructure. While the City will receive more benefit from prioritizing large canopy trees, small and medium canopy trees also provide benefit to the City and are important part of shading sidewalks, streets, and homes in dense urban environments.

Table 1-13: Top 10 Importance Values of Tree Species in Rancho Cordova

Rank	Botanical name	Common Name	Tree Stature at Maturity	Percent of Inventory	Percent of Inventory's Leaf Area	Importance Value
1	*Platanus X hispanica*	London plane	Large	10.8%	24.3%	35.2
2	*Quercus lobata*	Valley oak	Large	12.2%	15.7%	27.9
3	*Lagerstroemia indica*	Crape myrtle	Small	18.0%	1.3%	19.3
4	*Quercus wislizenii*	Interior live oak	Large	9.2%	9.1%	18.4
5	*Pistacia chinensis*	Chinese pistache	Medium	12.8%	4.8%	17.6
6	*Quercus agrifolia*	Coast live oak	Large	5.1%	8.8%	13.9
7	*Zelkova serrata*	Japanese zelkova	Large	5.2%	3.9%	9.2
8	*Sequoia sempervirens*	Coast redwood	Large	2.8%	5.6%	8.3
9	*Quercus douglasii*	Blue oak	Large	2.3%	4.1%	6.4
10	*Pyrus calleryana*	Bradford pear	Medium	3.1%	1.7%	4.8
Sources: City of Rancho Cordova Tree Inventory (West Coast Arborists 2019) and i-Tree Analysis (USFS 2020).						

Recommendations:

Chapter 1: Urban Forest Sustainability		
Section	**Recommendation**	**Discussion**
1.1.1.1 Climate Change	Consider tree species that will be able to adapt to the predicted increase in heat and drought conditions in Rancho Cordova due to climate change.	Given that crape myrtle, coast redwood, London plane, ornamental pear, and Chinese pistache all show signs of stress due to increased heat and drought, and that these species make up the majority of Rancho Cordova's tree inventory, choosing more climate appropriate species will be key in maintaining and fostering a healthy urban forest.
1.2. Tree Inventory Analysis	Annually monitor the City's oak trees to ensure they remain a healthy asset.	Oaks represent 32% of the City inventory and provide significant environmental benefits and wildlife habitat. The loss of oak species would have a significant impact on the urban forest.
1.2. Tree Inventory Analysis	Prioritize large stature and native trees in wildland areas and developing areas of the City.	Undeveloped and wildland areas present an opportunity to plant trees that contribute to native habitat, maximize environmental services, and expand canopy cover.
1.2. Tree Inventory Analysis	Increase the size of planting space available for street trees	To reach the City's canopy cover goals, the City will need to increase the size of planting space available to provide adequate room for large, tall trees to grow.



CHAPTER 2
TREE MANAGEMENT AND MAINTENANCE

2.1 Urban Forest Program Governance

The City of Rancho Cordova's trees require active and ongoing maintenance to sustain and enhance their health, condition, function, safety, and aesthetics. Trees in Rancho Cordova are maintained by several agencies and stakeholders, depending on their location and ownership. These entities include the City of Rancho Cordova and its partners and contractors, Cordova Recreation and Park District (CRPD), Folsom Cordova Unified School District (FCUSD), Sacramento Municipal Utility District (SMUD), and community members. The discussion of outside agency tree maintenance is presented in Chapter 5 of the UFMP.

2.1.1 Public Works Department

The City, through its Public Works Department, is responsible for the maintenance and management of approximately 3,910 City-owned trees. These trees are primarily situated in the municipal rights-of-way, but also include trees in stormwater basins and other areas. The City does not maintain trees in parks or on school grounds, which are managed by the CRPD and FCUSD, respectively.

City tree maintenance is undertaken by City-contracted arboricultural service providers. One 0.5 Full Time Equivalent (20 hours per week) contracted City arborist, reporting to the Public Works manager of operations and maintenance, administers the tree maintenance contract and other aspects of the urban forestry program, such as tree inventory, plan review, resident outreach, and code enforcement support.

The Rancho Cordova Public Works Department's stated mission is to provide residents, workers and shoppers with safe and efficient transportation systems, quality utility provisions and modernized environmental services to support the quality of life goals identified by our City leaders.

Other City departments and divisions are not directly involved in tree maintenance and typically coordinate with the Public Works department to resolve tree-related issues. Examples include tree maintenance and removal in and along stormwater basins and drains, or clearance pruning of traffic signals and utilities. Staff from several City departments report a strong willingness to build existing relationships with Public Works and to enhance

collaboration on tree maintenance-related issues and the pursuit of the City's urban forest goals and objectives.

2.1.2 Community Members

Trees on private residential, commercial, or institutional lands are the maintenance responsibility of the property owner. Implementation of arboricultural best practices and standards on private properties appears to be irregular, and many privately owned trees in the City have been topped or otherwise inappropriately maintained. To promote tree health, risk mitigation and functional capacity through proper tree maintenance, the City maintains a Tree Care Tips web page (City of Rancho Cordova 2021a), and the City arborist is available to provide arboricultural advice to property owners upon request. The City also supports private property owners in removing tree stumps and replanting trees through the Stump Removal Program (see Section 2.3.2.3).

2.2 Urban Forest Program Resources

2.2.1 Urban Forest Program Funding

In fiscal year 2019/2020, the City's urban forestry program operating budget expenditure was approximately $329,000 (approximately $84 per tree or $4.50 per capita). Urban forestry program funding is derived from several sources, as described below.

2.2.1.1 MEASURE H/COMMUNITY ENHANCEMENT FUND

In 2016, Rancho Cordova enacted the Measure H ballot initiative—a 0.5 cent sales tax—which funds the Community Enhancement Fund (CEF), among other City programs. The CEF has supported the ongoing "Enhance the City's Urban Forest" project as shown in **Table 2-1**, below.

Table 2-1: CEF "Enhance the City's Urban Forest" Project Funding, by Fiscal Year and Outcomes

Fiscal Year	Council Approved Funding	Key Outcomes
2020/21	$115,000	Ongoing
2019/20	$114,381	322 trees planted in 124 residential locations; 74 stumps removed from 49 locations
2018/19	$140,000	864 trees planted, education, maintenance
2017/18	$100,000	474 trees planted

2.2.1.2 GENERAL FUND

The City's tax- and fee-supported General Fund funds a portion of the urban forestry program, including the City arborist position and a portion of the Neighborwoods Organizer staff position, in partnership with SacTree. Urban forest maintenance and capital tree planting are funded through the City's operating budget and Capital Improvement Program.

2.2.1.3 GRANT FUNDING

In fiscal year 2018/19, the City received a CAL FIRE Urban and Community Forest grant for $369,500 to support tree planting, a community engagement partnership with the SacTree, and the development of this UFMP.

Approximately one-fifth ($84,000 per annum) of the CAL FIRE grant supports the City's partnership with SacTree's Neighborwoods Program (including retention of a Neighborwoods Organizer); Public Works contributes the remaining $28,000 to fund the partnership. Grant funding for this partnership is expected to run out in March 2022.

2.2.1.4 OTHER FUNDING SOURCES

On November 3, 2020, Rancho Cordova voters approved Measure R. This ballot initiative will provide an additional estimated $8 million in annual revenue towards the City's General Fund and represents an important potential funding source to support and enhance the City's urban forestry program. Special taxes and assessment districts have also been used to fund tree planting, among other public improvements (also known as "Facilities"), in some areas of Rancho Cordova.

2.2.2 Analysis and Strategic Directions

While City staff report that the urban forest maintenance program is generally adequately funded, the City's urban forestry budget is considerably smaller than the average across comparably sized and nearby comparator municipalities, as measured by several factors. The total urban forestry budget of $329,000, which includes programs not directly related to tree maintenance, is approximately 63% of the direct local comparator average.

The total urban forestry budget as a percentage of the total City budget is also considerably smaller than average (0.21%, versus 0.52% nationwide average and 0.53% average across the nationwide 50,000 to 99,000 population group) (based on 2019 Tree City USA data).

Notably, however, Rancho Cordova's urban forest budget per tree ($84.14) appears to be considerably higher than the national, regional, and population group averages ($33.72 to $37.50) (2019 Tree City USA data). However, direct comparison of this metric is challenging as it is unclear whether comparator budget figures only account for tree maintenance spending or are "all inclusive" (i.e., include all other urban forestry program expenditures). When compared with San Francisco's "all inclusive" $74.21 per public tree, Rancho Cordova's figure appears more closely comparable. Moreover, if only the City's tree maintenance spending is accounted for, the City's per-tree figure is closer to $21 to $30 per public tree, and thus actually below average.

The City's urban forest budget per capita ($4.50) is considerably lower than both the nationwide average and the direct local comparator average (both $9.40 according to 2019 Tree City USA data) but exceeds the minimum $2 per capita required by the Arbor Day Foundation as one condition of Tree City USA recognition. It must be noted, however, that this target does not account for inflation since the target was established in 1974; if properly adjusted, the per-capita target would be $10.61 in 2021.

Existing funding levels allow the City to meet basic urban forest maintenance obligations, such as grid pruning and service request and emergency response. Even moderately increasing urban forest resources would significantly enhance the City's capacity for effective urban forest maintenance, community outreach and engagement, and successful pursuit of urban forest goals and objectives. Furthermore, an appropriate level of resource enhancement would place Rancho Cordova on an equal footing with comparable municipalities and national and regional averages. A per-capita urban forestry budget of $9.40 would match the 2021 urban forestry budgets of comparable municipalities and the national average and should be established as a minimum target to be achieved by the City by 2035 or sooner. Annualized, this increase would represent 5.4% year-over-year growth in the urban forestry budget. If achieved by 2035, this funding level would likely still underperform comparators as their urban forestry budgets will also likely increase year-over-year to account for inflation and growth, albeit by smaller increases. **Table 2-2** presents a comparison of the City's urban forest budget to other California municipalities. **Tables 2-3** through **2-7** provide additional detailed information about Rancho Cordova's tree program budget.



Table 2-2: Comparison of Rancho Cordova Urban Forestry Budget Relative to Comparable Jurisdictions

Community	County	Proximity (miles)	Population	Population Difference (%)	Total Urban Forest Budget	Urban Forest Budget Per Capita
Rancho Cordova	**Sacramento**	**—**	**73,147**	**—**	**$329,000**	**$4.50**
Folsom	Sacramento	10.2	78,038	6.69%	$589,000	$7.64
Yuba City	Sutter	35.9	66,992	8.41%	$326,365	$5.77
Davis	Yolo	26.9	66,500	9.09%	$641,017	$10.00
Lodi	San Joaquin	33.8	64,641	11.63%	$975,342	$15.71
Woodland	Yolo	34.8	60,531	17.25%	$621,152	$11.29
Citrus Heights	Sacramento	7.2	87,731	19.94%	$384,346	$8.75
West Sacramento	Yolo	12.7	52,981	27.57%	$724,546	$13.77
Antioch	Contra Costa	49.5	114,254	56.20%	$270,969	$2.45
Roseville	Placer	10.8	139,117	90.19%	$1,450,000	$11.06
Town of Coloma	El Dorado	27.0	1,514	97.93%	$11,231	$7.42
Sacramento	Sacramento	19.9	501,334	585.38%	$6,693,855	$13.35
Average (with exclusions)			**73,230 (Sacramento)**	**34% (Sacramento)**	**$599,397 (excludes Sacramento)**	**$9.39 (excludes Sacramento)**

Source: Tree City USA 2019 data

Table 2-3: Forestry Budget

Forestry Budget	
Rancho Cordova	$329,000
Average Across United States	$801,595
Average Across Western Region	$675,314
Average Across 50k-99k Population Group, Nationwide	$646,501

Source: Tree City USA 2019 data

Table 2-4: Tree Program Percent of Total Budget

Tree Program Percent of Total Budget	
Rancho Cordova	0.21% (FY 2019–2020)
Average Across United States	0.52%
Regional Data	Not Available
Average Across 50k-99k Population Group, Nationwide	0.53%

Source: Tree City USA 2019 data

Table 2-5: Total Municipal Budget

Total Municipal Budget	
Rancho Cordova	$158,777,775 (FY2019-2020)
Average Across United States	$200,316,126
Average Across Western Region	$205,786,179
Average Across 50k-99k Population Group, Nationwide	$138,851,007
Source: Tree City USA 2019 data	

Table 2-6: Average Budget Per Public Tree

Average Budget Per Public Tree	
Rancho Cordova	$84.14 (all-inclusive) $21-30 (maintenance only)
Average Across United States	$37.50
Average Across Western Region	$33.72
Average Across 50k-99k Population Group, Nationwide	$36.17
Source: Tree City USA 2019 data	

Table 2-7: Forestry Budget Per Capita

Forestry Budget Per Capita	
Rancho Cordova	$4.50
Average Across U.S.	$8.76
Regional Data	Not Available
Average Across 50k-99k Population Group, Nationwide	$9.40
Source: Tree City USA 2019 data	

2.3 Urban Forest Maintenance

2.3.1 Overview

City of Rancho Cordova Municipal Code Chapter 19.04 – Protection of Public Trees (the City's tree ordinance) grants the City sole supervision and control for the "planting, maintenance, and removal of public trees, which are defined as "a tree or shrub whose trunk is planted in a street, planting easement, public premises, public sidewalk, median, traffic island or any other right-of-way owned or controlled by the city through an easement, license, fee title, or other permissive grant of use and maintained by the city."

Public Works currently manages approximately 3,910 trees, predominantly located in the public rights-of-way, to sustain and enhance urban forest health, condition, function, and safety. Currently, approximately 3,400 trees are included in the tree maintenance program, and this number is expected to grow as maintenance responsibility for recently planted trees is transferred from contractors to the City.

The scope of urban forest maintenance operations undertaken by the City of Rancho Cordova includes tree establishment care; tree pruning; stump removal; service request and emergency response; tree risk management; and pest, disease, and invasive species management.

These urban forest maintenance operations are addressed in this section of the UFMP, which reviews the current status of operations and outlines strategic directions for improvement based on a critical analysis and comparison with best practices in other jurisdictions.

2.3.2 Current Status

2.3.2.1 TREE ESTABLISHMENT CARE

Newly planted trees require post-planting maintenance to ensure they become successfully established in the landscape. Tree establishment care includes operations such as watering, mulching, fertilization (if required), structural pruning (also known as training), and monitoring.

Newly planted street trees, which are the direct responsibility of the Public Works department, are typically planted in irrigated sites. Irrigation is generally maintained in a functional state by the City's landscape contractor, which is also responsible for tree stake adjustment and removal. The contractor also provides some young tree pruning, although this appears to be largely focused on lower branch removal rather than proper structural training. Trees in unirrigated areas are manually watered approximately once per week during the growing season. Staff report that in most areas, minimal, if any, mulch is provided to the majority of trees.

In 2018 and 2019, over 500 trees were planted in the Bear Hollow Stormwater Basin by volunteers activated through SacTree's County-funded Urban Ecology program. These trees have also been maintained by SacTree; maintenance has included mulching, structural pruning, and watering and will continue until 2022. This approach to community-involved tree planting and contracted maintenance can serve as a model for future plantings of similar scope in Rancho Cordova.

Some recently planted trees receive young tree structural pruning by the City Arborist, and trees in Bear Hollow have also been structurally pruned by SacTree staff. Additionally, some trees have been scheduled for "young tree maintenance" in the tree inventory. However, there is no routine structural pruning program whereby all newly planted trees are automatically entered into a structural pruning cycle. Instead, such trees are generally included in the overall 5-year inspection and maintenance cycle.

2.3.2.2 TREE PRUNING

Primary objectives for tree pruning in Rancho Cordova, as elsewhere, are to produce structurally sound, healthy, aesthetically pleasing trees, and to mitigate or prevent tree/infrastructure conflicts.

Rancho Cordova's street trees are maintained by the City in both a reactive and proactive manner. Tree maintenance work orders may be assigned to the tree maintenance contractor via ArborAccess, the City's tree inventory management software system, or by the City arborist in response to field observations or service requests, or trees may be scheduled for routine pruning on an approximately 5-year inspection and maintenance cycle.

Contracted pruning works are to be undertaken in accordance with contract provisions, which include reference to arboricultural standards (ANSI A300 Part 1 – Pruning) and International Society of Arboriculture (ISA) Best Management Practices, and define the scope of services of the contract. However, the contract does not include detailed work specifications for the arboricultural services to be performed. Pruning works are periodically inspected by the City arborist and, although most work is conducted in accordance with industry standards and best practices, some poor pruning practices have been observed.

2.3.2.3 STUMP REMOVAL

The City's public tree ordinance (Ch. 19.04 – Protection of Public Trees) regulates "any tree stump that is visible from the public right-of-way" as a public nuisance and prohibits the maintenance of any such stumps. As part of a broader approach towards City beautification and blight removal, the Public Works department offers residential property owners a free tree stump removal and tree replacement service under the Urban Forest Program Stump Removal Service program. This program is supported by Measure R funding and appears to be unique among California municipalities. While the program is routinely accessed by City residents, it is reported that many stumps can be found across the City and that barriers to increased program uptake appear to remain, especially for renter-occupied properties.

2.3.2.4 SERVICE REQUEST AND EMERGENCY RESPONSE

In addition to proactive cycle-based tree maintenance, Rancho Cordova trees may be inspected or maintained in

response to externally or staff-initiated service requests or on an emergency basis. Residents can submit a variety of service requests through Fresh Connect—the City's online service request portal—or by telephone. However, the portal does not enable a clear and easy way to submit tree service requests, and the most closely matched request option involves "Landscape/Weed Abatement on Public Right-of-Way."

Non-emergency service requests are directed to the City Arborist, who inspects the subject tree(s) and determines, prioritizes, and assigns the required maintenance to the City's contractor. Emergency response work is undertaken directly by the Public Works contractor.

2.3.2.5 COMMUNITY ENGAGEMENT IN URBAN FOREST MAINTENANCE

The City encourages residents to water newly planted trees and, through the SacTree partnership and the work of the Neighborwoods Organizer, has engaged community residents in project-based tree planting and establishment care in locations such as Bear Hollow. Resident volunteers have also been engaged in park tree plantings with SacTree.

The City website hosts a "Request Free Trees" form and an "Interest in Neighborwoods" form to register resident interest in urban forest stewardship, but formal opportunities for broader engagement in public tree maintenance, such as watering or mulching, are limited. These opportunities are not effectively promoted and may be difficult to access or understand by those who are not already familiar with them. There is also currently no 'Adopt-a-Tree' type of program in place, whereby residents could be engaged to monitor or care for selected trees or groups of trees.

Proactive and effective urban forest maintenance on private residential and commercial properties also appears to be sporadic and relatively limited across the City. Lacking or insufficient resources, knowledge, awareness, and concern, among others, have been identified as potential barriers to effective tree maintenance on private properties in Rancho Cordova. The City has tried to address these barriers by providing tree care tips on its website and by directing tree maintenance inquiries to the City arborist; however, these approaches alone may not adequately address certain key barriers.

2.3.2.6 TREE RISK MANAGEMENT

An effective tree risk management program includes two key components: tree risk assessment and tree risk mitigation. Tree risk assessment entails the inspection of trees to identify potential sources of risk, assess consequences, and develop appropriate responses. Tree risk mitigation involves arboricultural maintenance to reduce the likelihood of tree failure or the associated consequences.

The industry standard for tree risk assessment is ANSI A300 (Part 9)-2017: Tree, Shrub and Other Woody Plant Management – Standard Practices (Tree Risk Assessment a. Tree Failure). Its implementation is guided by ISA's Best Management Practices, Tree Risk Assessment (ISA 2017), which includes a two-part matrix that considers the likelihood of failure and target impact and associated consequences to assign a qualitative tree risk rating to the subject tree.

Tree risk associated with Rancho Cordova-maintained trees is managed both proactively (through cyclical tree inspection and pruning) and reactively (in response to resident requests or staff observations). The City arborist holds the ISA Tree Risk Assessment Qualification (TRAQ) and applies standard practices, including the tree risk rating matrix, for the assessment of trees identified as potential risk candidates. Similarly, the current arboricultural service contractor has TRAQ-qualified arborists on staff. Where necessary, the City has previously sought tree risk assessment and management consulting services from qualified external third-party arborists for high-value trees with elevated assessed risk. In practice, the City has demonstrated a willingness to implement a conservation-based approach to tree risk management, including limb reduction pruning in favor of tree removal.

While the City's approach to tree risk management on a tree-by-tree basis is generally consistent with industry standards and best practices, it is notable that the tree inventory does not include a standard-based tree risk rating for every tree. There is also no tree risk policy in place to guide the City's overall approach to tree risk management.

2.3.2.7 PEST, DISEASE, AND INVASIVE SPECIES MANAGEMENT

Tree pests and diseases can adversely affect the health,

condition, function, safety, and aesthetics of trees or tree populations. Similarly, invasive plants can threaten the ecological integrity and functioning in natural areas. While these stressors can rarely be entirely eliminated once present, monitoring and controlling their populations and effects is an important component of sustainable urban forest management.

The nearby city of Sacramento has been identified by as one of the top five urban areas in California susceptible to the establishment of Asian-origin urban forest pests (California ReLeaf, 2011). By extension and proximity, Rancho Cordova should be considered similarly vulnerable.

Urban forest pest and disease issues of primary concern for Rancho Cordova include:

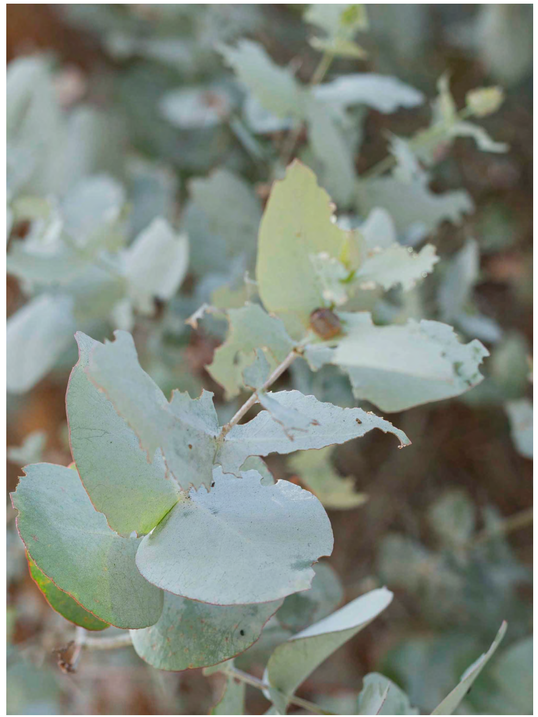
- Mistletoe (family Viscaeae): This hemi-parasitic or parasitic shrub grows on and can disfigure or stunt the growth of trees and is actively managed by the City through removal pruning.
- Mediterranean oak borer, Xyleborus monographus: This ambrosia beetle has not been observed in Rancho Cordova but is likely capable of establishing in much of California. It is a species of concern as it can infest trees in the oak and beech family and carries a potentially deadly fungus. Drought-stressed trees, commonly found in urban areas, are particularly susceptible.
- Invasive shot hole borer (including polyphagous shot hole borer, Euwallacea fornicatus; and Kuroshio shot hole borer, Euwallacea kuroshio): These two related beetles can potentially vector Fusarium dieback disease in over 137 susceptible tree species. Sacramento County has established a shot hole borer monitoring program in riparian areas and firewood lots, but neither beetle species has been observed in the county to date.

Additional pests and diseases of concern include Asian longhorned beetle (Anoplophora glabripennis), goldspotted oak borer (Agrilus auroguttatus), walnut twig beetle (Pityophthorus juglandis) and the associated thousand cankers disease (Geosmithia morbida), Asian citrus psyllid (Diaphorina citri), and Dutch elm disease (DED; Ophiostoma ulmi and O. novo-ulmi), among others.

To help the City manage DED, Municipal Chapter 19.08 – Dutch elm disease control, regulates DED-infested elm trees and dead elm materials containing bark as a public nuisance, and enables the City to enter private property to inspect elm trees or “abate the nuisance.”

Urban forest pests and diseases in the City are primarily managed on a reactive basis. The City primarily relies on its arboricultural services contractor to identify pest and disease issues during the course of routine maintenance works, which are then assessed and scheduled for responsive management. Sacramento County currently monitors for invasive shot hole borer and Asian citrus psyllid.

Where previously present, known invasive tree species such as tree-of-heaven (Ailanthus altissima) and Russian olive (Elaeagnus angustifolia) have been removed by the City, and no formal invasive plant species management program is in place at the municipal level. Some invasive plant species management has been undertaken by volunteers in the American River Parkway under the guidance of the American River Parkway Foundation.



2.3.3 Analysis and Strategic Directions

2.3.3.1 TREE ESTABLISHMENT CARE

The current approach to establishment care for City-owned

trees in Rancho Cordova appears to lack in consistency and coordination. This occasionally leads to inconsistent application of existing best practices, an inadequate level of care for some young trees, and incomplete information or tracking of tree establishment care.

The City should therefore develop and adopt a comprehensive approach to young tree establishment care and ensure the consistent application of operations such as watering, mulching, young tree structural pruning, and monitoring. Unless specifically excluded from such a program due to size, location, or project-specific reasons, all trees planted by the City and its partners should be included in the tree establishment care program. At minimum, all trees should be watered weekly during the growing season until established, mulch should be provided and maintained (topped up) on an annual or more frequent basis, and all trees should be inspected and, if necessary, structurally pruned (trained) a minimum of three times in the first 10 years following planting (a "3-in-10" pruning cycle). All maintenance should be logged in the existing ArborAccess tree inventory system and ultimately be integrated with the City's broader Infrastructure Asset Management Systems, and all young trees should be routinely monitored to track establishment progress. The Bear Hollow plantings, wherein community volunteers have been engaged in tree maintenance, can be used as a model for establishment tree care in future plantings of similar scope and nature, and the City's partnership with SacTree should be leveraged to increase focus on establishment care along with the existing primary focus on tree planting.

Community residents and businesses can more effectively be engaged in tree establishment care through the development and implementation of an 'Adopt-a-Tree' program. Such programs currently exist in many municipalities and are generally focused on the "adoption" (and care) of single trees requested for planting by the program participant, typically in front of a residential property. Perhaps the most exemplary Adopt-a-Tree program is found in Cambridge, Massachusetts, where the city provides an interactive online map of "available" and "adopted" trees for program participants to choose to adopt. By adopting a tree or trees, residents commit to monitoring, watering, mulching, and weeding for a period of time, and are encouraged to adopt trees in areas beyond their homes or businesses. A similar program in Salinas, California, encourages groups of residents to 'Adopt-a-Block of Trees' and serve as liaisons between Salinas Trees and the resident tree adopters in their neighborhoods. The City of Colton, California, provides adopters with clear guidance on tree watering requirements for young trees, and advises residents that, "Trees don't require as much water as you may think!" An 'Adopt-a-Tree' program could be readily developed and scaled for Rancho Cordova and would effectively engage residents in enhancing tree establishment care and tree health, survival, and function.

The City has no control over tree establishment care on private lands. The City's ability to influence tree establishment on private properties is generally limited to communicating best practices, providing voluntary standards, and supporting private land tree planting programs, such as the Sacramento Tree Foundation's Sacramento Shade program.

Table 2-8: Top 10 Importance Values of Tree Species in Rancho Cordova

California City	Pruning Cycle Frequency
Rancho Cordova	*5 years*
Alameda	*5 years*
Anaheim	*3 years*
Chino Hills	*3 to 5 years*
Costa Mesa	*3 to 4 years*
Fresno	*6 years*
Hayward	*15 years*
Irvine	*6 years*
Los Angeles	*Up to 15 years*
Modesto	*6 years*
Piedmont	*3 to 5 years*
Santa Monica	*Annual to 5 years, based on species and road usage*
Walnut	*3 to 5 years*

2.3.3.2 TREE PRUNING

Many municipalities implement a combination reactive/proactive approach to urban forest maintenance, specifically tree pruning. Rancho Cordova's approach to tree maintenance, including the 5-year inspection and maintenance cycle, generally conforms to common practices among comparable jurisdictions (see **Table 2-8**) and reflects best practices supported by research (Miller and Sylvester 1981) that suggest pruning cycles of 5 to 7 years optimally balance pruning costs and maintenance of tree value.

Some municipalities adjust tree inspection and pruning cycles according to factors such as tree species, age, or location. For example, the City of Pasadena follows a 3-year cycle for palms, a 5-year cycle for moderately to fast-growing hardwoods, and a less frequent 7-year cycle for slower-growing tree species. In Santa Monica, tree inspection cycle frequency ranges from annual to 5 years, depending upon dominant tree species and street use volume, and only trees identified as requiring work during the inspection are pruned.

The City's tree pruning service contract references industry standards and best practices but does not include detailed work specifications to clearly outline local expectations and acceptable practices. While ANSI standards and ISA Best Management Practices provide guidance for pruning operations, they are not intended to function as a substitute for detailed work specifications and in fact, stipulate that standard-based specifications should be written for work assignments. In other words, specifications should be based on standards, and standards are not substituting for specifications.

Rancho Cordova should ensure that the existing 5-year inspection and pruning continues to be implemented as the number of trees under the City's management responsibility increases over time. This will likely require an increased allocation of operating resources, as well as staff time to administer pruning contracts, manage work orders, and audit contractor performance.

Pruning contract tender documents should be enhanced with detailed pruning specifications based on ANSI A300 Part 1 – Pruning standards and should not rely on a reference to these standards as the sole basis for outlining performance expectations and acceptable practices. The City should increase performance auditing of arboricultural contractors to ensure the consistent application of and adherence to industry standards, best practices, and local specifications.

Finally, the City should continue to ensure that all tree pruning maintenance work undertaken is logged and tracked in the existing ArborAccess tree inventory system and that all urban forest assets are ultimately integrated with the City's broader Infrastructure Asset Management Systems. This will facilitate the adoption of a comprehensive asset management approach that will enable the City to plan, budget, and implement a lifecycle-based urban forest maintenance approach and ensure that tree value and function are maximized more effectively.

2.3.3.3 STUMP REMOVAL

The City's Urban Forest Program Stump Removal Service is a unique and effective program that has helped the City meet its blight removal objectives and made space available for replacement tree plantings. The City should continue to offer, and increase the public awareness and promotion of, the stump removal program. If demand exceeds supply, program capacity should be increased by either extending program duration every year or increasing program resources (e.g., hiring more crews). The replacement tree planting component of the program should be strengthened by increased monitoring of planted trees and an enhanced approach to tree establishment care (see Section 2.3.3.1, Tree Establishment Care, above).

2.3.3.4 SERVICE REQUEST AND EMERGENCY RESPONSE

The City's tree maintenance service request and emergency response procedures are generally effective, and do not require significant improvement. However, the service request process would be made more effective by adding dedicated tree service request functionality to the City's Fresh Connect online service request portal; doing so would make it easier for residents to submit service requests, thereby supporting urban forest maintenance and risk management operations and contributing to increased urban forest health, condition, function, safety, and aesthetics. As generally recommended, service requests and emergency response work should continue to be logged and tracked in the existing ArborAccess tree inventory system and ultimately integrated with the City's broader Infrastructure Asset Management Systems.

2.3.3.5 COMMUNITY ENGAGEMENT IN URBAN FOREST MAINTENANCE

Due to the technical nature of arboriculture, opportunities for community engagement in urban forest maintenance are largely limited to basic operations such as monitoring, watering, mulching, and weeding. Community engagement in these helpful actions could be facilitated through an Adopt-a-Tree program (see Section 2.3.3.1, Tree Establishment Care, above). However, programs of this nature may occasionally fail to engage some members of the community; for example, residents of economically disadvantaged neighborhoods and other community members may lack access to the resources necessary to gain awareness of and participate in such programs. The City must also continue to work to increase resident engagement in urban forest stewardship and tree maintenance. While traditional outreach methods such as enhanced online and social media content, door-hangers/mailers, and a more formalized tree stewardship program will help to reach some of the target audience, barriers to uptake for some community members may be more challenging to overcome. As such, the City, in partnership with SacTree and other partners, will need to develop and adopt more innovative outreach and engagement approaches, such as integrating engagement initiatives with other City services and events, undertaking more focused and tailored outreach efforts in communities with identified needs, and providing incentives and direct assistance for urban forest stewardship where necessary.



2.3.3.6 TREE RISK MANAGEMENT

The City arborist and contractors apply industry standards and best practices to tree risk assessment. However, to date, the City's approach to tree risk management has been largely ad hoc, reactive, and limited to individual trees of concern. Currently, routine tree inspection is limited to the 5-year inspection and pruning cycle, and trees inspected under this program are not formally assessed for risk or assigned a standards-based tree risk rating.

Moreover, there is currently no program guidance for tree risk management. Such guidance, typically outlined in a formal tree risk management policy, is necessary to outline municipal roles and responsibilities, service levels, acceptable risk thresholds, assessment and reporting methods, assessor training and qualification requirements, and other components of the City's tree risk management approach. Such a policy is intended to ensure that all City-owned trees are appropriately managed to reduce risk and liability, and that adequate resources are secured to support municipal tree risk management efforts.

The City has demonstrated a willingness to adopt conservation-focused tree risk mitigation approaches. Such approaches include targeted canopy reduction pruning, cabling, and bracing, among others, and may enable the conservation of valuable trees that would otherwise be removed.

The City should enhance its tree risk management program through several measures, including:

- Proactive risk assessment can be facilitated by the delineation of tree risk assessment zones based upon factors such as frequency of occupation, general tree size/age, or common species. Limited visual assessment (e.g., drive-by) of trees in these zones should be undertaken on a periodic basis, with frequency depending upon tree characteristics. For example, a zone with larger, older trees would be inspected more frequently than areas with younger and smaller trees. Trees that are identified as requiring a more comprehensive risk assessment would be noted

and reassessed. Trees in natural areas should also be assessed on a periodic basis, especially near trails and perimeters.

- The development and adoption of a tree risk management policy that includes the level of program guidance outlined above.
- The continuation of conservation-focused tree risk mitigation approaches and the application of advanced level tree risk assessment methodologies (e.g., sonic tomography, tree stability assessment) for high value trees with elevated or unknown risk potential.

2.3.3.7 PEST, DISEASE, AND INVASIVE SPECIES MANAGEMENT

The largely reactive nature of urban forest pest and disease management in Rancho Cordova, wherein the City primarily relies on external service requests, ad hoc observations, or its arboricultural services contractor to identify pest and disease issues during the course of routine maintenance works, increases the vulnerability of the urban forest to these stressors.

A more proactive and effective approach to urban forest pest, disease, and invasive species management should be implemented by the City through actions such as:

- Increasing resources to support proactive monitoring and assessment, such as pest, disease and invasive species surveys, trapping, branch or tree sampling, enhanced inventory update frequency, etc.
- Development of issue-specific monitoring and response plans that embody an Integrated Pest Management (IPM) approach. IPM focuses on the maintenance of pests and diseases at tolerable levels through a combination of cultural, physical/mechanical, biological, and microbial/chemical pesticide control methods and keeping environmental impacts to a minimum.
- Maintaining and enhancing existing partnerships, and building new partnerships, with stakeholders and agencies such as the U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS), California Department of Food and Agriculture, Sacramento County and neighboring counties and municipalities, CRPD, FCUSD, SMUD, and others, on pest, disease, and invasive species identification, monitoring, and management.
- Improved awareness-building related to urban forest pests, diseases, and invasive species, such as topic-specific online and social media content, targeted outreach at community and City events, traditional media advisory advertising, and promotion of citizen science-based urban forest monitoring.

The City's approach to urban forest pest, disease, and invasive species management should embody the overarching principles and practices of IPM, which includes the following:

- **Selection and establishment of diverse species:** Tree species should be suitable to the planting site, should be resistant or of low susceptibility to a variety of pests and pathogens, and should not be overabundant in the urban forest. Monocultures (i.e., plantings of a single species), while at times aesthetically pleasing, create favorable conditions for the rapid dispersal of pests and pathogens and potentially widespread tree damage and mortality.
- **Maintaining tree vitality:** Maintaining vigorous and healthy trees through adequate irrigation, pruning, soil and site management, and fertilization (when required) can enable trees to more effectively resist infestation or infection without other interventions.
- **Systematic maintenance and sanitation:** The regular and timely removal of dead or diseased tree parts and dead and dying trees will reduce the number of unhealthy trees in the urban forest, thereby reducing the likelihood of rapid pest and pathogen dispersal. Timely and targeted inspection and pruning can also be used to remove diseased branches and may potentially result in saving otherwise vulnerable trees. All equipment used for maintaining potentially diseased or disease-susceptible trees must be properly sanitized before moving to the next tree, and all diseased plant material must be disposed of in accordance with applicable regulations and best practices. Trees infected with transmissible diseases should be removed as soon as possible and properly disposed of. Pruning windows or bans for various susceptible species must be communicated, observed and enforced.
- **Replacement planting:** Planting of replacement trees should be undertaken whenever trees are removed for pest or disease management purposes. New trees should not be susceptible to the original problems and must be properly planted and maintained until establishment. Replacement trees should not be susceptible to any pathogens that may have necessitated the previous tree removal, in case inoculum is still present in the soil at the time of planting.
- **Inspection of nursery stock:** Planting stock must

be inspected and certified to be free of pests and transmissible pathogens. The City should reject any nursery stock which is diseased or shows the signs or symptoms of a pest or pathogen.

- **Encouragement of beneficial species and alternative pest control methods:** It must be recognized that not all urban forest insects are pests, and most do not require any active control or monitoring. Furthermore, some species of insects and animals may in fact be beneficial by promoting flowering, seed formation, tree health, or tree pest control. As such, alternative pest control methods, such as promoting beneficial insect and animal habitat or releasing beneficial insects (when required) should be undertaken as part of a comprehensive IPM program. Baited and scented traps may be another effective means of pest control but are often better suited to presence/absence and delimitation surveys. Tree banding may an effective non-insecticidal method for surveying and controlling crawling pests.
- **Chemical control:** When required and warranted, chemical means of controlling pest populations or preserving significant trees should not be ruled out as potential options. If chemical treatment is required, less-toxic options (e.g., insecticidal soap) or trunk-injectable insecticides should be used whenever possible to avoid environmental chemical exposure, and pesticides must only be applied in the minimum quantities required and in accordance with applicable legislation, regulations, and label requirements. Judicious use of chemicals to control specific pests and pathogens that pose potential to cause significant economic or aesthetic losses should continue to be an option for control and should be considered if and when necessary.

Recommendations:

Chapter 2: Tree Management and Maintenance		
Section	**Recommendation**	**Discussion**
2.2 Urban Forest Program Resources	Increase urban forestry funding to a minimum level of $9.40 per capita by 2035 or sooner	Current spending is adequate to carry out most basic functions of urban forest management but additional resources are required to meet canopy cover goals, provide optimal levels of service, and meet comparator resource levels.
2.2 Urban Forest Program Resources	Establish the City Arborist as a full-time permanent staff position	The current Arborist position is part-time but the workload has requirements for a full-time City staff member.
2.3.2.1 Tree Establishment Care	Develop an “Adopt-a-Tree” program	An `Adopt-a-Tree’ program is one avenue to increase public participation in urban forestry and to enhance maintenance, survival, and growth of City managed trees. This program would encourage residents to water and provide basic maintenance (e.g., weeding) to newly planted trees in the City.
2.3.2.1 Tree Establishment Care	Short term management (<5 Years): focus on successful establishment of young trees	Short term management actions include: proper irrigation, mulching, and soil condition improvements
2.3.2.2 Tree Pruning	Maintain the existing five-year inspection and pruning cycle for City-managed trees	The City’s current practice is an accepted best management practice for tree management and should continue.

2.3.2.2 Tree Pruning	Medium term management (5-50 years): Implement budget considerations related to pruning and maintenance.	As the majority of the urban forest will grow and mature at the same time, the City should plan for increases to budget allocations for pruning and maintenance actions that will need to be taken to keep trees healthy and safe.
2.3.2.3 Stump Removal	Continue, and enhance, the Urban Forest Program Stump Removal Service program	The City stump removal program is important aspect of providing available space to plant new trees while maintaining neighborhood aesthetics.
2.3.2.6 Tree Risk Management	Enhance tree inventory to include standards-based tree risk assessment	While the inventory is maintained on an ongoing basis, it should be enhanced by periodic tree risk assessment to determine if there are any trees requiring tree risk mitigation.
2.3.2.6 Tree Risk Management	Long term management (40+ years): prioritize increased maintenance, risk assessment, and removals	As the urban forest reaches maturity, actions to ensure the forest remains healthy and safe will need to shift towards new maintenance strategies, and increased risk assessment and removals.
2.3.2.7 Pest, Disease, and Invasive Species Management	Increase resources to support effective and pro-active pest, disease, and in-vasive species management	An unexpected invasive pest can have a devastating impact on a city tree population and a more robust pest and disease management program can help mitigate large scale loss of the City tree population.





CHAPTER 3
GROWING THE URBAN FOREST

3.1 Canopy Cover

All trees on public and private property in Rancho Cordova comprise the City's canopy cover, which is the layer of leaves, branches, and stems that cover the ground when viewed from above. As discussed in Chapter 1, trees provide numerous ecosystem services and benefits, including shade, cooler temperatures, energy conservation, and improved air and water quality, as well as social, aesthetic, economic, and health benefits (McPherson et al. 2017). This section of the UFMP provides a review of the existing canopy cover and the community enhancements provided by the canopy cover that improve the quality of life for residents and businesses. Further, priority areas for increasing the City's tree canopy are identified by evaluating the distribution of the tree canopy across the City.

Coupled with the analysis of the health and diversity of the City's trees (Chapter 2), the canopy cover analysis establishes the baseline condition from which to develop long-term goals and objectives for maintaining and growing healthy and large trees and increasing tree canopy to maximize resident enjoyment of environmental services.

An assessment of the existing canopy cover was conducted through data and spatial analysis, as well as discussions and interviews with City staff and residents. The following sections describe the current status of the City's tree canopy and provide recommendations that can help advance the City toward achieving a more equitable canopy cover that improves the community.

3.2 Rancho Cordova's Canopy Cover

3.2.1 Methodology

The City's existing canopy cover was determined by analyzing spatial data and satellite imagery to create a map of tree canopy and other land cover classes in Rancho Cordova. The tree canopy analysis was derived using Nearmap satellite imagery, current tree height data, and artificial intelligence (AI)/machine learning. Three critical data types were collected:

(1) satellite imagery

(2) a digital surface model indicating the elevation of all features within the area of interest

(3) a digital terrain model that represents bare ground elevations within the City

FIGURE 3-1:

CANOPY COVER

Developed area canopy cover: 12%

Undeveloped area canopy cover: 1.4%

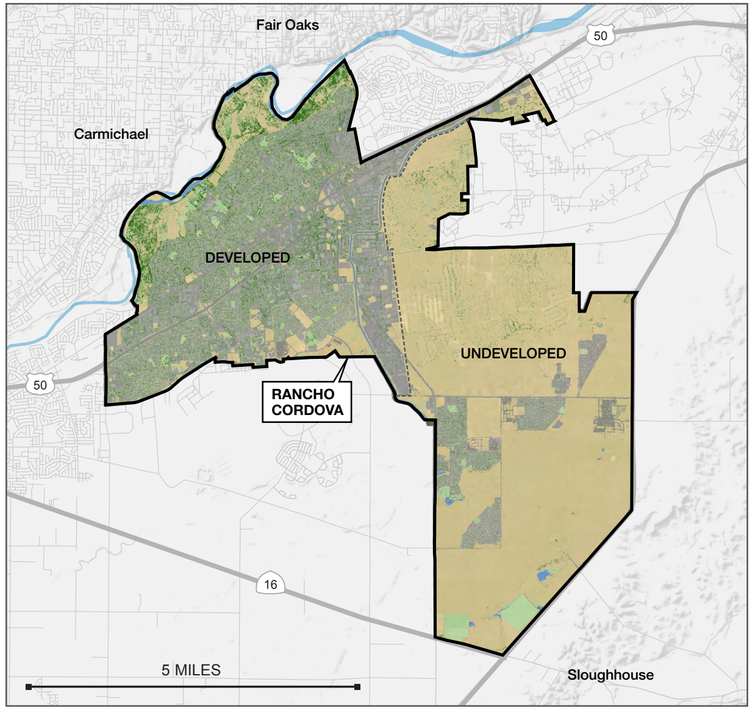


Figure 3-1, Canopy Cover, depicts the tree canopy cover and other land cover classes throughout the City, presented as (1) tree canopy, (2) grass/shrub, (3) bare dirt, (4) water, and (5) impervious surface. Results of the canopy cover assessment are presented in **Tables 3-1** and **3-2**.

3.2.2 Canopy Cover and Land Cover Assessment

The City of Rancho Cordova, located immediately south of the American River, contains a variety of natural habitat, including, but not limited to, oak and cottonwood woodlands, various grasslands, vernal pool areas, and open water and rivers. Wetlands and creeks and the associated riparian habitat comprise the historically tree-abundant parts of the City.

Rancho Cordova's tree canopy represents approximately 6% of the City's overall land cover. However, under existing conditions, development is primarily located in the western portion of the city, while the eastern portion of the city remains largely undeveloped apart from existing industrial, rural residential, and agricultural uses, as well as new residential communities that have been developed under Specific Plans. Due to these different development patterns, the following assessment of the City's canopy cover has been conducted by geographically separating

Table 3-1: Canopy Cover and Land Cover Assessment

Land Cover Type	Developed		Land Cover Type	Undeveloped	
	Acres	% Cover		Acres	% Cover
Tree	1,186	11.7%	Tree	166	1.4%
Grass/shrub	1,689	16.7%	Grass/shrub	609	5.0%
Bare dirt	2,193	21.7%	Bare dirt	10329	85.0%
Impervious surface	4,862	21.7%	Impervious surface	1004	8.3%
Water	171	1.7%	Water	42	0.3%

Source: ESRI 2018

the developed and undeveloped portions of the City and completing a separate analysis for each area. This strategy was used to ensure realistic canopy goals are set for existing developed areas and proposed new development in the City. The Sunrise Boulevard corridor and the Folsom South Canal were identified as the border between the developed portion of the City to the west and the undeveloped portion of the City to the east, as shown in **Figure 3-1**.

As presented in **Table 3-1**, the canopy cover study revealed that the developed portion of the City has a canopy cover of approximately 12%, while the undeveloped section of the City has a canopy cover of approximately 1.4%.

Land cover classes were further subdivided by private and public property to further understand where the City's urban forest is located and to identify potential planting opportunities. **Figure 3-2** depicts the canopy cover provided by City-managed trees (which includes 3,910 inventoried public trees) as compared to the city's overall canopy cover. As depicted in **Figure 3-2**, the City is responsible for managing 4-6% of Rancho Cordova's canopy cover.

Because the majority of Rancho Cordova's canopy cover is managed by entities other than the City, external agencies and private property owners play a significant role in increasing canopy cover. In order for the City to increase canopy cover, residents and property owners must understand the importance of planting, protecting, and preserving trees. This can be accomplished through public outreach and education to inform property owners of proper tree care and maintenance, species selection, planting requirements, and maintenance responsibilities for existing trees.

Additionally, City ordinances and policies that protect private property trees, outline tree replacement protocols, and stipulate penalties sufficient to deter violation should be implemented. This UFMP has identified goals and objectives through education and outreach to help ensure private property owners understand the key role they have in maintaining the City's urban forest and increasing tree canopy cover.

3.2.2.1 FACTORS THAT IMPACT CANOPY COVER

Compared to the following cities in the region, the City's current canopy cover is considered relatively low, as shown in **Table 3-2**.

FIGURE 3-2:

PUBLIC VERSUS PRIVATE TREES

Rancho Cordova's 3,910 City-managed trees account for approximately 4-6% of the City's canopy cover, while trees on private property account for approximately 94-96% of the City's canopy cover.

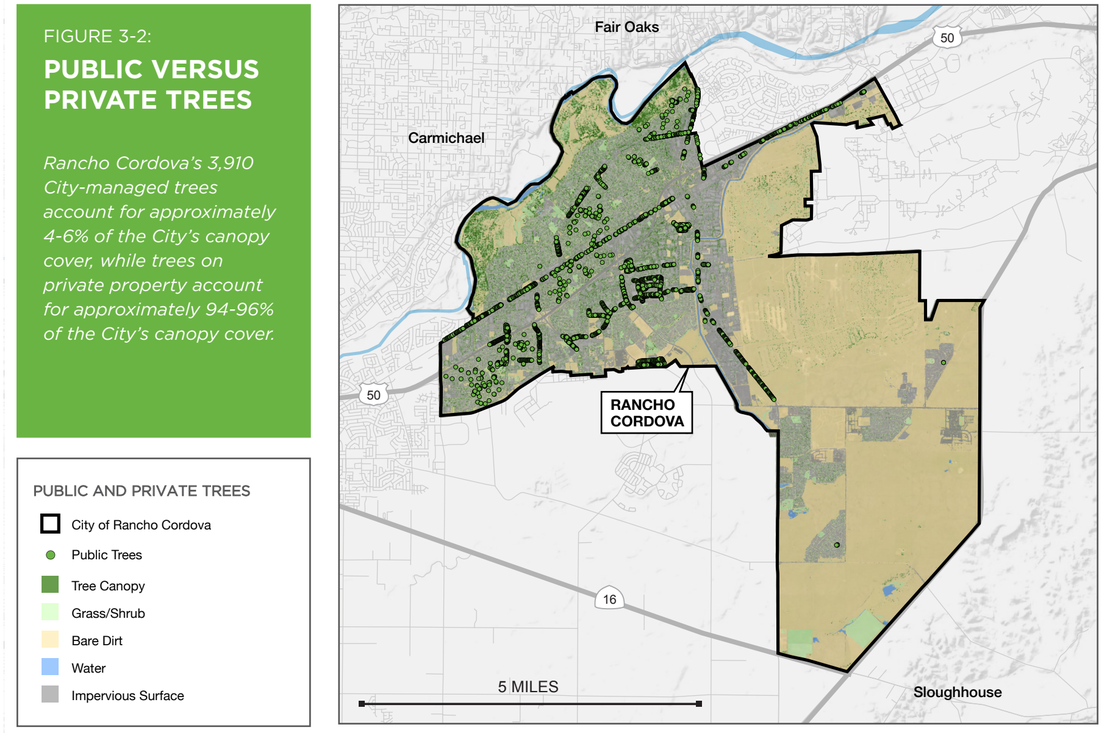


Table 3-2: Comparison of Canopy Cover with Other California Cities

City	Canopy Cover
Oakland	24.8%
Sacramento	19.1%
San Francisco	13.7%
San José	13.54%
Rancho Cordova	12%

However, many factors influence canopy cover such as varying development densities, land use patterns, ordinances, historical conditions, climate, and growing conditions.

3.2.3 Canopy Cover Equity

Approximately 80% of Americans and 95% of Californians live in urban areas (U.S. Census Bureau 2012). With increasing urbanization, cities are grappling with a myriad of issues associated with public health and health inequalities, such as air pollution, access to healthy foods, access to recreational areas and green space, mental health, quality of life, and more (Andrea 2019). Research has shown that access to urban green space and trees improves mental health and happiness in individuals and has a positive impact on the overall community well-being (White et al. 2013). As urbanization and urban sprawl have increased, the environmental benefits and services provided by trees, green space and green infrastructure are crucial to maintaining or improving the quality of life in urban areas. This further underscores the importance of the urban forest, as the many environmental benefits and services provided by trees can help sustain a healthy urban living environment.

Residents in areas with low canopy cover have an increased vulnerability to pollution, extreme heat, and potential health issues (Wolf 2020). In most cities, due to identifiable systemic injustices and socioeconomic factors, inequitable canopy cover disproportionately affects low income and minority communities. As a relatively young and developing city, Rancho Cordova faces a unique challenge of assessing canopy cover in existing urbanized areas and older neighborhoods as well as planning for future developments. When assessing canopy cover equity in Rancho Cordova, this UFMP focuses on the developed portion of the city. Establishing canopy and planning for trees in future development is further discussed in Chapter 4 of this UFMP.

3.2.3.1 CALENVIROSCREEN

As discussed in Chapter 1, environmental services provided by trees include the ability remove air pollutants and contribute to cleaner, healthier air in urban environments through direct pollution removal (e.g., uptake via leaf stomata or intercepting airborne particles), air temperature reductions (e.g., transpiration), and reduction of building energy and consequent energy emissions (e.g., temperature reductions provided by tree shade). One study of 55 different cities revealed that air quality improvement provided by trees in urban environments increases with increased percent canopy cover within a city (Nowak et. al. 2006). Communities with lower tree canopy cover are potentially subject to higher levels of pollution and associated negative health impacts.



The California Environmental Protection Agency created CalEnviroScreen, an online mapping tool that identifies California communities that are disproportionately burdened by pollution and vulnerable to its adverse health effects (OEHHA 2018). The tool uses environmental, health, and socioeconomic information to identify the inequities associated with pollution throughout the state. The data is presented by mapping the resulting CalEnviroScreen scores by census tract, as shown in **Figure 3-3**. The vulnerability scale is shown in percentage ranges, from 1% to 10% (least vulnerable) to 91% to 100% (most vulnerable).

Table 3-3 shows the census tracts within the City and the corresponding CalEnviroScreen Scores, existing canopy cover, and poverty level in the developed and undeveloped portions of the City. As noted in **Table 3-3**, some census tracts contain areas that overlap developed and undeveloped portions of the City, as well as areas outside of the City. To avoid overcounting population totals, it was assumed that the total population within each census tract primarily resides in the developed portion of the city for census tracts that overlap developed and undeveloped areas.

As shown in Table **3-3**, in census tracts occupied by developed area only (i.e., excluding census tracts that overlap undeveloped area), there is an approximately 15% gap in canopy cover between the area with the lowest and highest CalEnviroScreen Scores. Rancho Cordova has a total population of approximately 75,087 (U.S. Census Bureau 2019), and approximately 80% of the City's total population reside in areas with a CalEnviroScreen Score greater than 50%. The census tracts with the highest canopy cover percentages (6067008912, 6067008909, and 6067008913) are located adjacent to the American River Parkway in the northern portion of the City and have CalEnviroScreen scores ranging from 40% to 60%. By comparing the City's CalEnviroScreen Scores across census tracts, the City can identify the areas with a more immediate need for increased canopy cover. The areas with the highest CalEnviroScreen scores (most vulnerable) have an average canopy cover that is approximately 4% less than the Citywide canopy cover. These areas are primarily located along Folsom Boulevard and Lincoln Highway. Additionally, census tracts with the highest CalEnviroScreen scores are primarily located in the City's older neighborhoods within the developed portion of the City.

FIGURE 3-3:

CALENVIROSCREEN SCORES

Approximately 80% of the City's population reside in areas with a CalEnviroScreen Score greater than 50%.

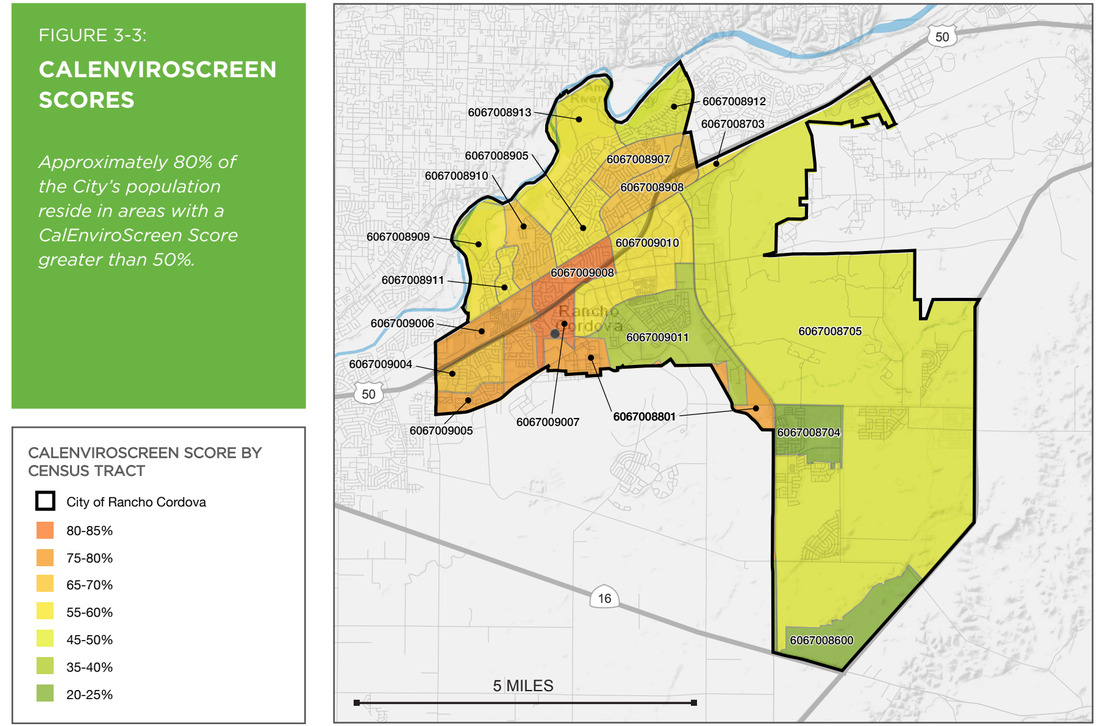


Table 3-3: . CalEnviroScreen Score, Poverty Level, and Canopy Cover by Census Tract

Census Tract	Population	CalEnviroScreen Score	Poverty Level	Canopy Cover
Developed				
6067009011a	3,964	35%–40%	21	4%
6067008912	3,100	40%–45%	52	25%
6067008705a,b	4,397	45%–50%	12	5.2%
6067008909b	2,358	55%–60%	70	23.7%
6067008911	2,295	55%–60%	88	15.7%
6067008913	4,145	55%–60%	66	17.6%
6067009010	4,866	55%–60%	38	13.3%
6067008703b	4,912	55%–60%	4	4.3%
6067008905	4,451	55%–60%	58	13.4%
6067008907	4,835	60%–65%	76	15%
6067009004	3,878	65%–70%	56	9.4%
6067008908	4,835	65%–70%	64	11%
6067008910	3,486	65%–70%	63	12.5%
6067008801a,b	4,436	70%–75%	39	7.1%
6067009005b	3,165	70%–75%	81	10.2%
6067009006	4,940	75%–80%	76	8.9%
6067009007	2,818	80%–85%	85	10.4%
6067009008	4,928	80%–85%	73	11%

Table 3-3: . CalEnviroScreen Score, Poverty Level, and Canopy Cover by Census Tract

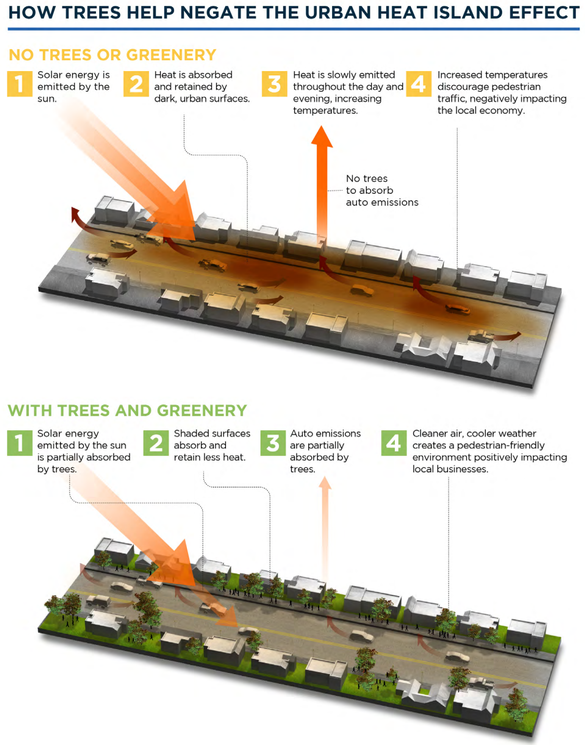
Census Tract	Population	CalEnviroScreen Score	Poverty Level	Canopy Cover
Undeveloped				
6067008600b	6,784	20%–25%	10	0.4%
6067008704	3,231	20%–25%	29	4.2%
6067009011a	—	35%–40%	21	0.5%
6067008705a,b	—	45%–50%	12	1.3%
6067008801a,b	—	70%–75%	39	0.3%

Source: OEHHA 2018.Notes:
a Census tract includes areas that are categorized as Developed and Undeveloped.
b Census tract includes areas that are outside the City of Rancho Cordova.

3.2.3.2. URBAN HEAT ISLAND

Communities lacking trees are also more likely to be subjected to more extreme heat events. Shade provided by healthy trees prevents approximately 1,200 heat-related deaths and countless heat-related illnesses annually in cities nationwide (American Forests 2020). Trees contribute to cooler temperatures by reducing the urban heat island effect, which occurs when urbanized areas experience higher temperatures relative to surrounding areas (see **Figure 3-4**). Structures, roads, and other infrastructure in the urban landscape absorb and re-emit the sun's heat, resulting in daytime temperatures that are approximately 1°F to 7°F higher than surrounding areas, and and nighttime temperatures that are approximately 2°F to 5°F higher (EPA 2020). Additionally, on a sunny day, hardscape surfaces, such as asphalt, concrete, or roofs, can reach temperatures that are 50°F to 90°F hotter than the surrounding air temperature (EPA 2019a). Heat islands increase energy use through increased demand for air conditioning, which in turn increases air pollution and greenhouse gas emissions. The combination of increased temperatures and emissions contribute to compromised human health and comfort such as heat-related illness and mortality (EPA 2020).

Figure 3-4 Urban Heat Island Effect



As temperatures continue to increase in California, the frequency of extreme heat events poses severe health risks that disproportionately affect certain populations, such as outdoor workers, elderly, individuals with existing health conditions, and households without air conditioning, among others. Social and economic inequities are significant indicators of the ability of individuals and communities to protect their health from extreme heat events (CHAT 2021). Heat is the cause of the most weather-related deaths in the United States, and the frequency of extreme heat events has significantly increased throughout California over the last 30 years (OEHHA 2019). In addition to the increased risk of heat-related illness and death, extreme temperatures contribute to poor air quality, stress wildlife and vegetation, increase wildfire risks, increase water demand, and increase power demand, which strains the electric power supply (OEHHA 2019). The increased frequency of extreme heat health events emphasizes the importance of mitigating extreme heat. The California Heat Assessment Tool (CHAT) provides information about future extreme heat events to help state and local

planning efforts better understand how extreme heat will impact communities. **Table 3-4** presents the anticipated extreme heat health events for each census tract in the City. Heat vulnerability is a statiscally weighted result of the indicators below and is intended to represent overall heat vulnerability. It ranges from 0 to 100 with lower scores representing less heat vulnerability.

Urban trees and vegetation have the potential to reduce the urban heat island effect and lower surface and air temperatures by providing shade and through evapotranspiration (Loughner et al. 2012). Surfaces may be 20°F to 45°F (11°C to 25°C) cooler under the shade of a tree than surfaces with no tree cover (EPA 2019b). Based on the canopy analysis, approximately 26% of the City consists of impervious surfaces (i.e., parking lots, buildings, roads, and other hardscape) that are not covered by the urban tree canopy. Expansion of the tree canopy would increase the extent of shade cast on exposed hardscape and reduce the urban heat island effect.

3.2.4 Increasing Canopy Cover

As previously discussed, each city contains unique circumstances and opportunities for canopy cover, making it difficult to broadly prescribe canopy cover goals. The existing canopy cover and canopy cover goals for a city are largely based on the natural landscape in which they were developed. Generally, cities that developed under ideal conditions in forested areas may attain up to 40%–60% tree canopy cover (American Forests 2017). Alternatively, cities in desert and grassland areas may experience 15% to 20% canopy cover, respectively (American Forests 2017). Rancho Cordova's existing canopy cover and canopy cover goals must be assessed in consideration of historical, existing, and projected conditions of the City.

Rancho Cordova was developed on land that was once open grassland, wetlands, and woodland communities with trees largely existing in riparian areas along available water sources. The trees along streets and private property in Rancho Cordova were planted as the City developed, as opposed to the City being built into a forested area. As such, 20% can be used as a benchmark to measure current canopy cover levels and a baseline for canopy cover goals (American Forests 2017).

Table 3-5 presents the total number of trees that would

need to be planted to increase the City's canopy cover to the desired tree canopy percentage. **Table 3-6** presents the total number of trees that would need to be planted per year over a 30-year period to achieve the desired tree canopy percentage. Example species with the given canopy spread are provided in the table

Table 3-4: . CalEnviroScreen Score, Poverty Level, and Canopy Cover by Census Tract

Census Tract	Population	Average Max Temp	Annual Health Events	Heat Vulnerability	Priority
6067008704	3,231	107.09	2.2	16.24	Low
6067009011	3,964	107.09	2.2	28.28	Monitor
6067008912	3,100	107.09	2.2	31.92	Monitor
6067008705	4,397	107.09	2.2	15.63	Low
6067009010	4,866	107.09	2.2	38.38	Monitor
6067008913	4,145	107.09	2.2	38.73	Monitor
6067008905	4,451	107.09	2.2	40.32	Monitor
6067008911	2,295	107.09	2.2	42.25	Monitor
6067008909	2,358	107.09	2.2	32.87	Monitor
6067008907	4,835	107.09	2.2	41.97	Monitor
6067009004	3,878	105.49	1.35	38.09	Monitor
6067008908	4,835	107.09	2.2	41.14	Monitor
6067008910	3,486	107.09	2.2	38.63	Monitor
6067008801	4,436	103.55	2.3	18.81	Low
6067009005	3,165	105.49	1.35	36.07	Monitor
6067009006	4,940	105.49	1.35	39.7	Monitor
6067009008	4,928	107.09	2.2	42.4	Monitor
6067009007	2,818	107.09	2.2	46.11	Monitor

3.2.5 Canopy Cover Opportunities and Constraints

3.2.5.1 DEVELOPED AREA

Understanding the opportunities and constraints that impact canopy cover in the developed area of the City will help inform the types of programs and level of resources needed to increase canopy cover. The developed area canopy cover analysis estimates achieving a 20% canopy cover would require adding 18,604 trees with a 50' wide canopy spread, which would take planting 651 trees a year for 30 years to reach the target tree total. Actual canopy cover increase would be achieved over a 40-year timeframe to allow for trees planted in years 25-30 to grow and develop a canopy spread. As discussed, 20% canopy cover is a reasonable baseline for a city like Rancho Cordova given the historical land use conditions but does not indicate what is a realistic goal for the city based on current conditions. Setting a realistic canopy cover target should be informed by the current canopy cover total and the planting space available within the constraints of existing infrastructure like sidewalks, homes, and roads.

The City tree inventory identifies 501 vacant tree planting sites in the developed area (see **Figure 3-5**). It is possible other planting locations exist within City managed landscapes that are not identified in the inventory, or that new tree planting locations could be created through infrastructure projects. A key factor in planting trees in existing vacant planting sites will be the ability to obtain funding for irrigation, as many of these identified sites do not currently have a way to sufficiently water new trees. The City inventory also reflects 2,155 trees are 1-15' tall, which will help to increase canopy cover in a shorter time-frame with continued establishment care and maintenance. The total increase will be limited by species selection, as trees with smaller canopy spreads like crape myrtle (671 trees) and Chinese pistache (257 trees) comprise 43% of trees 1-15' tall.

The inventory data and canopy analysis suggest that the City cannot increase canopy cover by only focusing on City managed landscapes. Partnerships with other large public land managers such as the Cordova Recreation and Parks District and Folsom Cordova School District represent one option (further discussed in Chapter 5). Another option is to work directly with private property owners of residential

Developed Area Canopy Cover Goals

Table 3-5: Number of Trees Needed to Increase Canopy Cover

Total Canopy	Total Number of Trees by Canopy Spread			
	20 ft diameter	35 ft diameter	50 ft diameter	75 ft diameter
	Western redbud	*Callery pear*	*Chinese pistache*	*Interior live oak*
14%	*32,229*	*10,520*	*5,155*	*2,291*
16%	*60,255*	*19,667*	*9,638*	*4,282*
18%	*88,280*	*28,815*	*14,121*	*6,274*
20%	*116,306*	*37,963*	*18,604*	*8,266*
25%	*186,369*	*60,832*	*29,811*	*13,246*

Table 3-6: Total Number of Trees to Plant per Year for 30 Years to Increase Canopy Cover

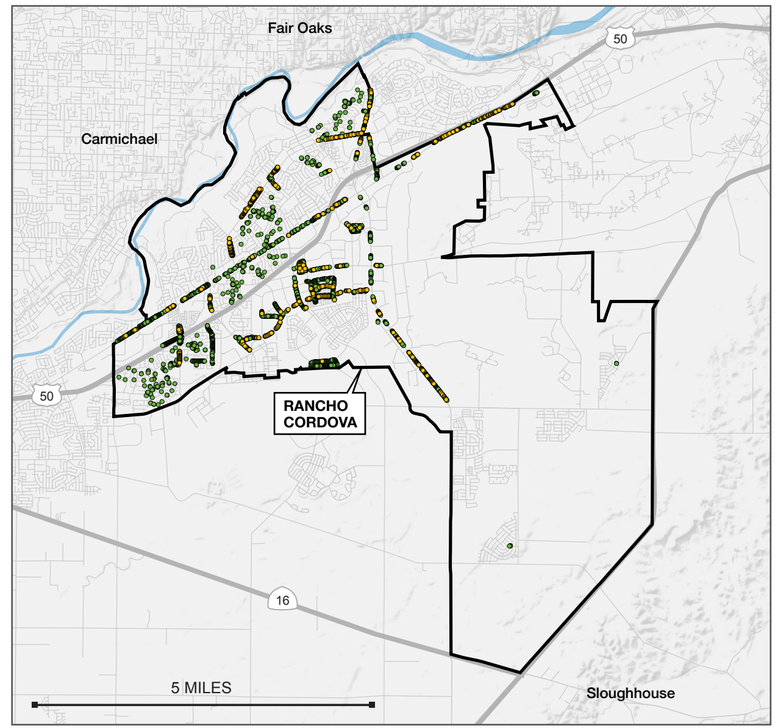
Total Canopy	Total Number of Trees by Canopy Spread			
	20 ft diameter	35 ft diameter	50 ft diameter	75 ft diameter
14%	*1,128*	*368*	*180*	*80*
16%	*2,109*	*1,009*	*494*	*220*
18%	*3,090*	*1,009*	*494*	*220*
20%	*4,071*	*1,329*	*651*	*289*
25%	*6,523*	*2,129*	*1,043*	*464*

Note: *A 5% mortality rate has been added to accommodate for potential tree mortality; this does not account for mortality of existing trees.*

FIGURE 3-5:

TREE INVENTORY & PLANTING LOCATIONS

Available tree planting locations present limited opportunity to increase canopy cover.



and commercial properties which comprise most of the land use in the City.

The Housing Element of the City's General Plan states there are 28,340 housing units in the City and further breaks down housing units by structure type of single family (SF), multi-unit dwellings, and mobile homes (see **Table 3-7**). Because housing unit totals are based on 2020 data, most housing units would exist in the developed area of the City, as new residential communities are just beginning to be built in the undeveloped area.

It is not known if each housing unit lot has space to accommodate a 50' wide canopy tree. If it was possible, then the City could achieve a canopy cover total higher than 20% by planting one 50' wide canopy tree at each location. If 14,170 housing units, or half of the total housing units, could accommodate a 50' wide tree, the City would be 4,434 locations short of the planting goal. The total number of housing units emphasizes the important role of residential properties as a key city partner in achieving canopy cover goals.

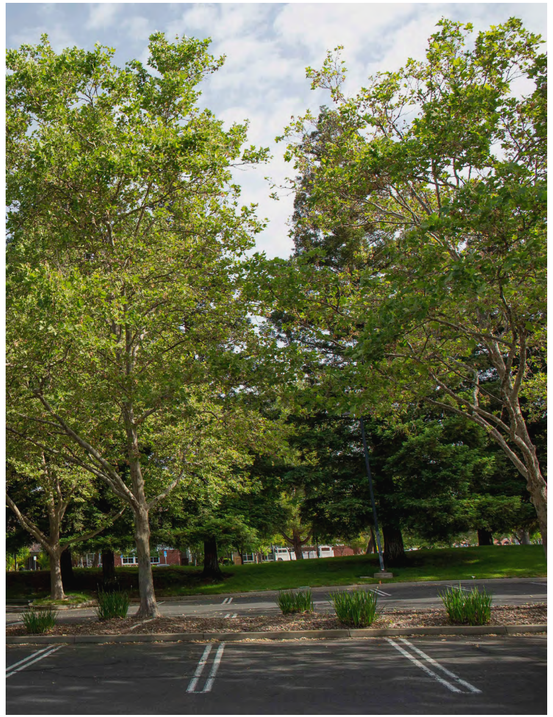
Another factor to consider is that 44.6% of households in the city are renter-occupied (City of Rancho Cordova 2021b) and renters are not able to make decisions about housing unit land management. This issue was discussed in interviews with community member stakeholders and during community meetings. Participants suggested that while renters may want to plant a tree, they are often unable to obtain permission from property managers to do so. While this appears to present a limitation to planting trees on residential properties, it may also present an opportunity if property managers who own several properties are willing to participate in City tree planting efforts.

Table 3-7: Housing Units by Structure

	Total Housing Units	SF Detached	SF Attached	2-4 Units	5+ Units	Mobile Homes
2020	28,340	17,036	1,688	2,054	6,048	1,514

Source: City of Rancho Cordova 2021b

Commercial and industrial properties are also important land uses in the City, which combine to cover 2,103 acres (918 acres commercial and 1,185 industrial) (City of Rancho Cordova 2021b). City policy mandates 50% canopy cover over parking lots for these land use types. Successfully implementing this policy is another important tool of the City to achieve canopy cover goals.



3.2.5.2 NEW DEVELOPMENT

Rancho Cordova is expected to have a major influx of new housing and residential development over the next 10-15 years. New residential communities are expected to add 25,000 new housing units in currently undeveloped areas of the City. Whether these communities achieve high levels of canopy cover depends on whether the planning process will appropriately include trees alongside streets, sidewalks, homes, and available open space. Expanding canopy cover requires providing trees with the appropriate growing space in the ground to reach maturity without coming into conflict with other infrastructure.

As further discussed in Chapter 4: Development and Urban Forest Protection, City design guidelines call for a

minimum parkway width of 6' for development projects, which limits the tree size and species that can be planted. When tree species are not appropriately selected for the space provided the impact can be felt in a brief amount of time. This is evident in the Anatolia neighborhood where California sycamore trees planted 10-15 years ago are lifting sidewalks and have required removal. Neighborhood canopy cover is decreased when these trees are removed, and often smaller stature trees are planted to replace the previous large stature trees. As a result, the ability of the tree canopy to provide shade over paved surfaces, and the neighborhood's overall canopy cover, are diminished.

Since many of the planned communities are yet to be built, and solar panel requirements for new homes may limit future space for large stature trees, the opportunity is still available for the City to work with land developers to design and build neighborhoods that can have large stature trees without interfering with infrastructure. It also allows the exploration of other land use types to plant trees such as stormwater detention basins where trees can provide shade for passive recreation areas and contribute to stormwater capture.



3.2.5.3 STORMWATER CAPTURE

Maintaining surface and groundwater quality is important for both human health and environmental resources. The abundance of impervious surfaces in urban areas creates an interconnected network of hardscapes, which reduces infiltration and groundwater recharge. Additionally, high volumes of runoff may lead to flooding, overloading of the sewer system, and contamination of surface and groundwater resources (Berland et al. 2017). Trees can reduce the amount of stormwater runoff and pollutants that reach local waters by slowing and storing runoff, capturing and storing rainfall, creating conditions that promote infiltration of rainwater, and absorbing and converting pollutants into less harmful substances (EPA 2013).

Trees planted in waterways and areas designed for stormwater capture (e.g., bioswales) provide benefits of both rainwater infiltration and increasing the City's canopy. Installing street trees with stormwater capture in mind, can include various design elements such as the use of tree grates, bioretention soils, and suspended pavements.



3.2.5.4 STORMWATER DETENTION BASINS

Stormwater detention basins provide an opportunity for passive recreation, enhancing water resources, aesthetics, and wildlife habitat (Open Space Design Guidelines 2013). These locations are largely open spaces with few installed components of infrastructure like sidewalks, overhead utility lines, and buildings. They are also a part of the design of new residential development communities. This presents an opportunity to increase tree canopy in new residential development communities by planting large stature trees that have ample soil volume and no spacing restrictions to inhibit growth. While the site conditions are conducive for tree planting, they also require a dedicated from of irrigation and regular maintenance to be successful.

There are typically two strategies to water newly planted trees that can be applied to stormwater basins; having a contractor water from a truck or installing irrigation. An advantage of contracted watering is the ability to write the contract to include visual inspections for maintenance issues, adjusting stakes and ties, keeping the watering basin free of weeds and debris, and applying mulch to ensure a tree receives additional care beyond watering.

A limitation of this form of watering is that it is only performed during the contract period, and if a tree dies and needs replacement, it will only receive water for the remainder of the contract.

Installed irrigation has the benefit of uniformly applying watering on a set schedule. This will help to ensure that trees receive the correct amounts and frequency of water through the establishment period. It also allows for flexibility in limiting or increasing watering during periods of rain or extreme heat. Another advantage is that it is permanent and additional lines can be added to water other newly planted trees. The new residential developments are not centrally located within Rancho Cordova and contracted water services may be difficult to secure at a reasonable rate for the City. Since the new residential developments are also installing other components of infrastructure, it would be reasonable to include irrigation for tree plantings as part of the requirements for new communities.

Recommendations:

Chapter 3: Growing the Urban Forest		
Section	**Recommendation**	**Discussion**
3.1 Canopy Cover	Complete an updated City-wide canopy cover study every 3-5 years.	Completing an updated canopy cover study every 3-5 years will allow the City to measure progress towards canopy cover goals, assess where canopy is expanding or shrinking, and refine strategies of the UFMP to meet current conditions.
3.2.2 Canopy Cover and Land Cover Assessment	Develop an outreach and education strategy to residential and private property owners.	A majority of city-wide canopy cover exists on private property, making the participation of private property owners in planting and maintaining trees on their property critical to achieving canopy cover goals.
3.2.3 Canopy Cover Equity	Prioritize tree planting efforts towards neighborhoods with the lowest level of tree canopy cover and those identified by CalEnviroScreen 3.0 as having a high vulnerability to pollution hazards.	Census tracts with the lowest level of canopy cover are also considered to have high vulnerability to pollution. This demonstrates a need to prioritize tree planting efforts in these communities that will increase canopy cover and associated environmental benefits.
3.2.3 Canopy Cover Equity	Conduct an urban heat island mapping exercise of the City to determine locations that experience the greatest impact from the urban heat island effect and utilize this information to prioritize locations for increased tree planting and management activities.	The urban heat island effect significantly increases surface and air temperatures in the city, which can result in a higher rate of heat related illnesses and death, as well as higher costs to cool homes/ buildings, and higher levels of pollution to generate the energy used in cooling.

3.2.4 Increasing Canopy Cover	Establish a city-wide canopy cover goal based on its historic natural environment, land use data, climate conditions, and available locations to plant trees on both public and private land.	Currently the city experiences 11.7% canopy cover within the developed footprint of the city, well below the baseline measure of 20%. Establishing a long-term canopy goal for the city should be realistic, time bound, and periodically reviewed/ adjusted to reflect current conditions within the City.
3.2.5 Canopy Cover Opportunities and Constraints	Identify all possible City managed tree planting locations including streets, city facilities, and open space areas.	The city inventory identifies 501 vacant street tree planting locations which is well below what will be needed to increase canopy cover. Identifying additional locations will help support the ability of the city to meet annual tree planting totals needed to increase canopy cover.
3.2.5 Canopy Cover Opportunities and Constraints	Continue to provide regular maintenance to recently planted trees such as establishment care and structural pruning.	The city inventory identifies 2,155 trees as having a height of 1-15', which is 55% of the total inventory and is an opportunity to increase canopy cover without planting new trees.
3.2.5 Canopy Cover Opportunities and Constraints	Develop tree planting strategies with other key land holders in the City like CRPD and FCSD.	Increasing canopy cover will need to include maximizing the available planting space of all possible locations in the city including park and school locations managed by partner agencies CRPD and FCSD.
3.2.5 Canopy Cover Opportunities and Constraints	Increase enforcement of the city policy that requires 50% canopy cover over parking lots on commercial and industrial properties.	Industrial and commercial properties account for 2,103 acres of land use in the city and represent an opportunity to expand canopy cover while also lowering the urban heat island effect on paved surfaces.





CHAPTER 4
DEVELOPMENT AND URBAN FOREST PROTECTION

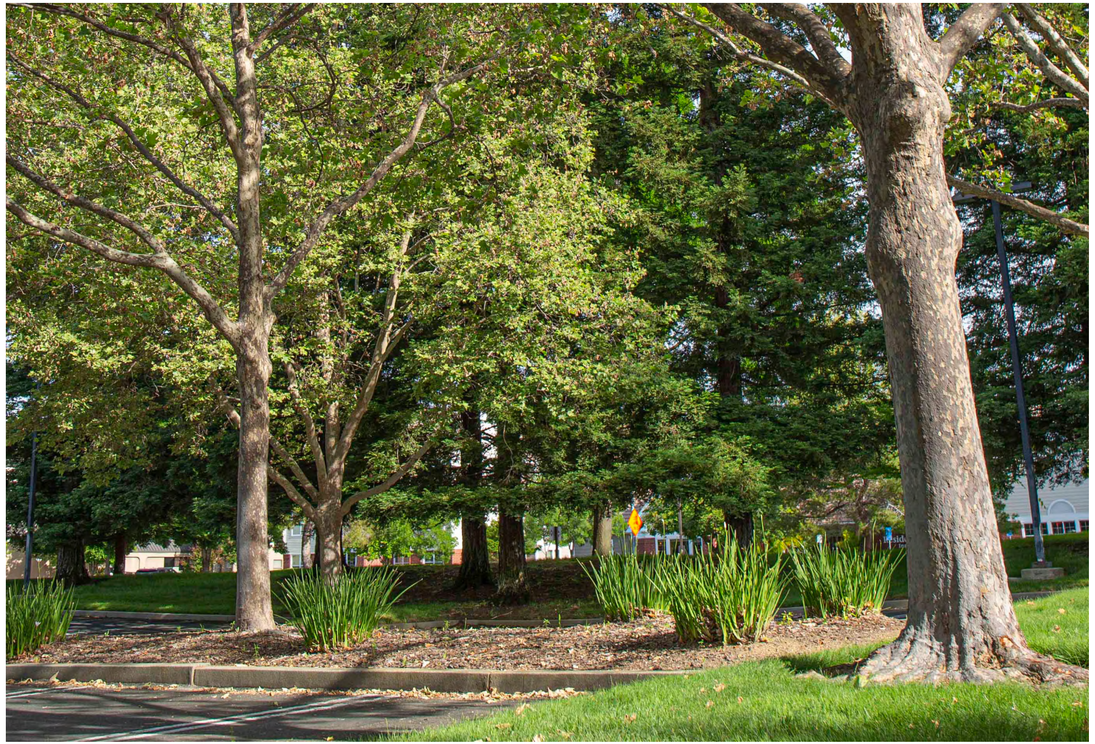
4.1 Development

Incorporated in 2003, Rancho Cordova is a relatively young city in the Sacramento Metropolitan area with room for growth and expansion of developed areas. Development in the City is guided by various City planning and guidance documents (further discussed below). Rancho Cordova residents and community leaders have set out to "Build a City," and the General Plan serves as a blueprint for the ultimate pattern of development (City of Rancho Cordova 2006).

4.1.1 Community Specific Plans

As Rancho Cordova has increased in size and population, the City has used Specific Plans as a tool to guide new development. Specific Plans are used to implement the policies and goals of the City's General Plan over a designated geographic area, while providing a set of development standards that apply to the Specific Plan area. There are several recently annexed and/or undeveloped parts of the City that are earmarked for new or proposed development. These developments are identified in Specific Plans, including Folsom Boulevard, Rio del Oro, Suncreek, and Sunridge. Additional Specific Plans currently under development include Westborough and Arboretum-Waegell.

Trees are minimally addressed in the Folsom Boulevard and the Sunridge Specific Plans, while the Rio del Oro and Suncreek Specific Plans provide more robust discussions of trees. The Folsom Boulevard Specific Plan includes one design requirement for the inclusion of shade trees at drive-throughs. The Sunridge Specific Plan prohibits trees in overhead utility corridors, and notes that there are no existing oak trees in the Specific Plan Area. The Rio del Oro Specific Plan discusses trees in terms of the existing setting, noting that riparian wetlands containing trees are present and a tree inventory was conducted, which identified "1,520 trees of significance" in the Specific Plan area. Appendix A of the Rio del Oro Specific Plan includes the Development Standards and Design Guidelines for the Specific Plan area. These include general guidelines regarding trees in the Parks and Open Space and Commercial development sections, which call for planting of large shade trees in parks, parking lots, along streets and pedestrian walkways, in setback areas, and as visual buffers or screening elements. Section 3.2.4 of the Circulation and Streetscape chapter is dedicated to street trees. The section includes a street tree list and discusses



the importance of street trees for their provision of shade and enhancing the visual environment. The street tree guidelines also discuss tree spacing and the need to select trees appropriately for their intended purpose and location to avoid infrastructure conflicts but provides minimal additional guidance.

While trees provide shade and contribute to the visual character of an area, there are many other tree benefits and services that are essential to a resilient community. By incorporating trees into the Specific Plan solely for aesthetic purposes and shading, there is a missed opportunity to increase the multiple of benefits and services provided by trees. It has also led to trees as a secondary consideration to other elements of the built environment, such as roads, sidewalks, and utilities. Once these parts of infrastructure are installed it can be difficult to find space to accommodate trees.

The City's current intention to expand development into its undeveloped and underutilized areas in the eastern portion of the City, with development guided by Specific Plans, represents an opportunity to prioritize the City's urban forest from the early stages of development planning.



By planning for trees in advance and in consideration of space requirements, maintenance needs, and potential infrastructure conflicts, the City's new communities can maintain a healthy urban forest that maximizes the ecosystem benefits and services trees provide.

4.1.2 Role of Community Development Department

The City's Community Development Department, comprising the Building and Safety Division, Neighborhood Planning and Projects Division, and Planning Division, is responsible for planning and implementing growth and development in the City through development application review and approval. The department ensures that development in the City contributes to the quality of the community and complies with state and local codes and standards, including the City's General Plan and Municipal Code. The department also provides community-oriented programs and services that aim to strengthen and revitalize neighborhoods, provide affordable and safe housing opportunities, and form partnerships that maximize social and economic opportunities within the community (City of Rancho Cordova 2021a).

The Community Development Department conducts plan review and processes entitlement applications for proposed development projects in the City. As part of the review process, the department collects information regarding existing trees on a project site and trees with a canopy that overlies the project site. If trees are present, the City requires that a third party certified arborist (or similarly qualified professional) conduct a tree survey that provides the location, species, size (diameter at breast height [DBH] and canopy size), general health conditions and an exhibit depicting which trees will be preserved and removed. Tree protection fencing must be mapped on grading plans and utility plans. Additionally, landscape plans must show the location of proposed trees, including tree species and size at maturity, parking lot trees, and the size of landscape islands. Overhead or underground utility lines, fire hydrants, and light poles must be considered and provided sufficient spacing from trees per Rancho Cordova Zoning Code Section 23.716.050 (15 feet away from the center of a large type tree and 10 feet away from the base of a small type tree).

The City has taken positive steps toward tree preservation by requiring development proposals to include tree surveys and identify which trees on site would be preserved or removed. However, there is currently no requirement or incentive to preserve existing trees. The department does not require that only a certified arborist can conduct tree surveys, and plan review is currently conducted by the City's contract landscape architect rather than a certified arborist. The type of information collected for each tree, especially details regarding tree health conditions, would be most appropriately collected and reviewed by a certified arborist given the training and education required to adequately determine tree health conditions, potential impacts, and preservation requirements.

The City can encourage preservation of existing trees in new development and redevelopment projects by providing incentives, such as waived or reduced fees or low-impact development credits. These can include reduced stormwater fees or credits that help the landowner meet water quality performance standards or design requirements. If possible, existing trees should be incorporated into project landscaping, and low-impact development strategies can be implemented to ensure the trees are utilized for stormwater management on site. Such strategies include installation of bioswales or stormwater retention basins near existing trees, impervious surface reduction, and permeable pavement.

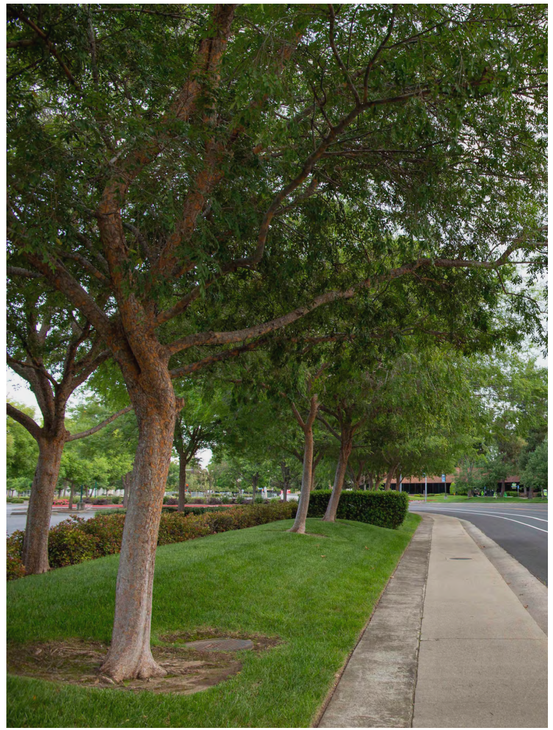
4.1.3 Design Guidelines

The City of Rancho Cordova Design Guidelines, adopted in 2005, are intended to enhance the quality and character of the community through implementation of the City's Vision and the General Plan. The guidelines are designed to provide an understanding of the expectation for high quality development in the City, and guide design professionals, property owners, and residents when designing projects as well as City staff and decision-makers when reviewing development proposals. The guidelines provide a vision for the City through site design guidelines by project type.

Circulation, Public Space and Pedestrian Amenities

The guidelines address public spaces and the pedestrian environment and call for the inclusion of a variety of shading options, including shade trees. Standards for "urban sidewalks" are identified, including minimum sidewalk widths (10 to 12 feet, or 15 feet where restaurants provide outdoor seating) and tree placement between the roadway and the buildings to help define the street

edge; however, the sidewalk should not be separated from the roadway by a planter strip.. As such, trees would be planted using tree wells with grates/grills. When trees are planted below grade, the use of tree wells and grates can act as a stormwater basin and help reduce infrastructure conflicts (e.g., sidewalk repairs). However, prohibiting the use of planter strips that separate the sidewalk from the roadway eliminates added benefits of such features.



As further discussed below in regard to the City's Pedestrian Master Plan and Bicycle Master Plan, studies have shown a correlation between the presence of street trees and increased pedestrian activity as well as perceived and actual safety for bicyclists and pedestrians (Ewing 2016; Wolf 2010; Lusk 2020). Planting strips landscaped with trees and other vegetation can serve as a buffer between vehicles and the sidewalk.

Streetscape

The City's streetscape guidelines call for the inclusion of broad, branching shade trees that would form a canopy across the roadway and provide shade for pedestrians, and accent trees to help establish a sense of place. The guidelines indicate that roadways should be wide enough to accommodate large shade trees, including a 5-foot minimum width for medians and planting strips that would support trees with wide canopies.

A 5-foot minimum width for medians and planting strips will not provide adequate space to allow for large tree species based on the City's own standards. The City has a list of recommended species that are appropriate for planting in Rancho Cordova with minimum spacing recommendations based on the tree size at maturity. The City's tree species list does not include a tree suitable for a 5-foot parkway or median, and the smallest required planter width is 8 feet. Additionally, the City list includes 89 recommended tree species but only 16 that are appropriate for a 6-foot parkway and does not include any native oak trees. This will limit the ability of the City to achieve sustainable levels of species diversity and opportunities to provide habitat for wildlife. By increasing the minimum median or planting strip width to 8 feet, the City can provide space for more medium to large stature trees while limiting the potential for infrastructure conflicts and increasing longevity for sidewalks.



Sustainable Development

The sustainable development component of the City's Design Guidelines (2005) addresses building design, and the inclusion of amenities in plazas and other pedestrian hardscape areas to provide shade from solar heat. The guidelines are intended to reduce glare and heat islands using various strategies including umbrellas, awnings, canopies, and shade trees. The guidelines specify that these elements should be included in the initial design of the project rather than added as an afterthought.

Including space for trees and landscaping during the design stages is important to avoid future infrastructure conflicts and ensure trees have the necessary space to mature. While the design guidelines indicate maximizing solar heating opportunities for buildings, the guidelines do not provide guidance on how to accomplish this. In addition to maximizing solar heating, buildings and landscaping should be planned to provide cooling benefits for buildings by providing summer shade. In addition to providing shade for the pedestrian environment, trees can be strategically planted around buildings to yield energy cost savings by keeping indoor spaces cooler. Tree shade can contribute to cooling a home and reducing energy costs by as much as 35% (Arbor Day Foundation 2021). Trees should be planted to shade east- and west- facing walls to maximize cooling benefits (Kuhns 2021). Trees can also be planted to shade heating, ventilation, and air conditioning (HVAC) units to increase efficiency (Arbor Day Foundation 2021). For buildings that include solar panels, tree selection and placement must be planned such that solar energy generation capacity is not impeded by potential shading.

Landscaping

The Design Guidelines specify that landscaping and trees should help establish project identity, complement the built environment, and offer relief from the mass and scale of structures while creating an inviting pedestrian environment. Landscaping should be planned during project design such that trees and vegetation are provided with enough space to accommodate projected growth. Site and street trees that are used for shading and screening purposes should be broad branching, with mature canopy spread of 40 feet and a high canopy to allow visibility of buildings. Guidelines for parking lot landscaping are in accordance with the City's Zoning Code (Section 23.716.070, Parking lot landscape), which calls for 50% of the total parking area to be covered by tree canopies within 15 years of issuance of a building permit. Canopy coverage would be determined by the approximate crown diameter of each tree after 15 years of growth, as estimated on the approved street tree list, and trees should be a minimum 15-gallon size at planting.

Solar canopies or carports may be used rather than shade trees to achieve the required 50% shading. However, there are limitations to the placement of solar canopies and carports, and existing property boundary trees must be retained. Further, these styles or structures and infrastructure do not offer the range of environmental benefits that trees can provide.

The parking lot shading requirement is enforced through the design standards, plan review, and code enforcement. As further discussed in the Code Enforcement section below, existing challenges can make code enforcement difficult. There are also additional challenges to achieving 50% coverage within 15 years. The natural growth rate of the tree, establishment care, and maintenance will impact the development of the tree canopy and timeline when 50% coverage can be achieved. The design standard may also encourage planting trees more closely together, rather than providing space for trees to achieve a mature canopy without interference from adjacent trees. Additionally, minimum sizes for planting areas are specified in the Municipal Code (minimum 6-foot width, minimum 25 square feet), but there are no soil volume or other standards established to ensure tree health and longevity.

While there are challenges in implementing the design standard, the standards intend to maximize available planting space for trees and cool paved areas, which are critical aspects of creating resilient communities. The City may benefit from a longer time frame to achieving 50% canopy cover so site plans can accommodate large stature trees that maximize ecosystem services while providing shade for parking areas. Tree species should be selected by a certified arborist and in accordance with the City's approved tree species list.

4.1.4 Code Enforcement

The City of Rancho Cordova Code Enforcement Division is responsible for enforcing the City's health and safety regulations and implement land use policies, which are designed to maintain the quality of life and high standard

of living in the City. This includes codes, policies, and regulations governing trees on public and private property. Such codes address tree maintenance; nuisance abatement for dead, dying, or damaged trees; tree preservation; planting or replacement requirements; tree placement and spacing requirements; species selection; and conflicts with infrastructure (the Rancho Cordova Municipal Code is further discussed below in Sections 7.2.3 and 7.3).

The City often faces challenges to successful code enforcement such as insufficient resources and heavy reliance on the community to report issues or concerns. City interviews revealed that the City's code enforcement is primarily conducted in response to complaints received from community members. Reliance on community members to report tree related violations requires community awareness of the City's tree protection ordinance, the ability to identify poor tree maintenance practices, and a willingness to report a neighbor who is in violation of an ordinance. Because of the multiple challenges to enforcing penalties for violation of the ordinance, it is more prudent to encourage willful compliance from private property owners. This must begin by educating private property owners on the existence of the ordinance and how it applies to trees on their property. It can be further enhanced by dialogue with community members to understand if it places an undue burden on private property owners and whether the ordinance can be updated to address community concerns. The community is more likely to abide by and assist with enforcement of an ordinance that they agree with and have played a role in shaping.

4.2 Relationship to Other City Documents

4.2.1 Rancho Cordova General Plan

California law requires that every city and county prepare and adopt a long-range comprehensive general plan to guide future development and to identify the community's environmental, social, and economic goals. A general plan is currently required to include seven elements: land use, circulation, housing, conservation, open space, noise, and safety. Additional elements may be included to address local conditions or resources (OPR 2017). The Rancho Cordova General Plan was adopted in 2006 and serves as the primary regulatory document for land use decisions in the City. The Zoning Ordinance and subsequent Specific Plans and development proposals must be consistent with the General Plan's goals, policies, and standards. The General Plan identifies the City's land use, circulation, environmental, economic, and social goals and policies in 12 elements. A review of the City's General Plan revealed that trees are addressed in 16 goals, policies, and action items across the Urban Design, Circulation, Natural Resources, and Air Quality Elements.

Tables 4-1 through 4-4 present the General Plan goals, policies, and action items as they relate to tree preservation, development and community character, community education, and long-term sustainability, respectively.

Table 4-1 presents the goals policies and actions items that relate to tree preservation in the City. Goal NR.4 and the accompanying policies and action items set the stage for the City's tree preservation ordinance. As written, this policy is primarily concerned with oaks and landmark trees. Policy NR.4.4 expands protections to other native trees that meet minimum size requirements. However, because the City's tree ordinance has been implemented since adoption of the General Plan, Title 19 of the Municipal Code replaces this policy. Title 19, the City's tree preservation ordinance, is further discussed below in Section 4.3.

Table 4-2 presents the policies and action items related to development and community character. These policies and action items are largely addressed by the Rancho Cordova Design Guidelines (see Section 4.1.3 above).

Table 4-3 identifies the action items related to community education regarding species selection and tree maintenance. While avoiding non-native species and managing parasitic plants (e.g., mistletoe) is important to maintaining a healthy urban forest, further guidance is needed to provide residents with the information they need to make beneficial decisions for the urban forest. The City's recommended species list and species selection practices and guidelines were reviewed during the UFMP process. As part of this UFMP, the list of recommended species has been updated. Next steps include expanded community outreach and providing residents with guidelines for selecting appropriate tree species for their residential location and managing tree pests, diseases, parasites, and other maintenance needs. Such recommendations should consider water requirements and maintenance costs associated with different species to help residents make mindful decisions that suit their individual tree goals and available resources.

Table 4-1: Tree Preservation-Related Goals, Policies, and Action Items

Natural Resources Element	
Goal NR.4: Encourage the planting and preservation of high-quality trees throughout the City.	
Policy NR.4.1	Complete an updated City-wide canopy cover study every 3-5 years.
Action NR.4.1.1	Implement the City's Tree Preservation and Protection Ordinance (and update as necessary) to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.
Action NR.4.1.2	Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.
Action NR.4.1.3	Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.
Policy NR.4.4	Prior to the approval of any public or private development project in areas identified or assumed to contain trees, the City shall require that a determinate survey of trees species and size be performed. If any native oaks or other native trees six inches or more in diameter at breast height (dbh), multitrunk native oaks or native trees of 10 inches or greater dbh, or non-native trees of 18 inches or greater dbh that have been determined by a certified arborist to be in good health are found to occur, such trees shall be avoided if feasible. If such trees cannot be avoided, the project applicant shall do one of the following: • All such trees shall be replaced at an inch-for-inch ratio. A replacement tree planting plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the City of Rancho Cordova for approval prior to removal of trees; or, • The project applicant shall submit a mitigation plan that provides for complete mitigation of the removal of such trees in coordination with the City of Rancho Cordova. The mitigation plan shall be subject to the approval of the City. • If the City of Ranch Cordova adopts a tree preservation ordinance at any time in the future, any future development activities shall be subject to that ordinance instead.

Table 4-4 identifies the action items related to long-term sustainability goals. These action items accurately reflect the ability of trees to provide cooling benefits and reduce heat island effects. Next steps involve providing detailed guidance on tree species selection, tree placement, and canopy size. Priority and opportunity areas for tree planting should be established, especially in areas of low canopy cover. Chapter 3 establishes canopy cover goals and evaluates canopy equity throughout Rancho Cordova to help the City identify priority and opportunity areas where trees should be planted. These goals will help the City achieve a more equitable canopy cover that benefits all residents of the community.

Table 4-2: Development and Community Character-Related Goals, Policies, and Action Items

Natural Resources Element	
Policy NR.4.2	Improve overall landscaping quality and sustainability in all areas visible to the public.
Action NR.4.2.2	Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.
Urban Design Element	
Policy UD.2.6	Create streetscape designs with themes that are oriented toward and inviting to pedestrians and cyclists and that are unique in character to a district, corridor, or area within the City.
Action UD.2.6.2	Create standards for the type, spacing, etc. of trees along the street. Require development to include street trees along all frontages of the project.
Circulation Element	
Policy C.2.4	Provide sidewalks throughout the City. Meandering sidewalks are discouraged, except where necessary to accommodate site-specific features such as trees or habitat.

Table 4-3: Development and Community Character-Related Goals, Policies, and Action Items

Natural Resources Element	
Action NR.4.2.3	Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.
Action NR.4.2.5	Establish a mistletoe abatement and remediation program.
Action NR.4.2.4	Discourage the use of invasive non-native species.

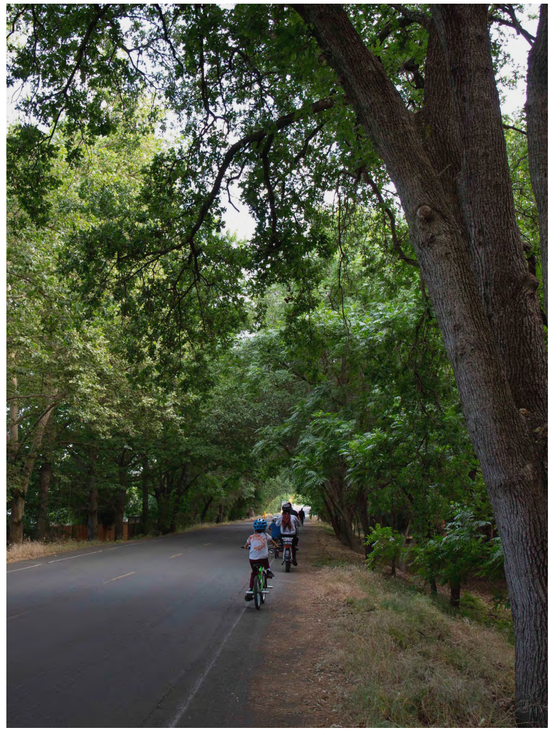
Table 4-4: Sustainability-Related Goals, Policies, and Action Items

Air Quality Element	
Action AQ.4.1.5	Promote the implementation of sustainable design strategies for “cool communities,” such as installing reflective roofing or light-colored pavement and planting urban shade trees.
Natural Resources Element	
Action NR.4.2.6	Establish guidelines to require planting of trees to reduce “heat island” effects, in order to reduce the need for air conditioning and thus conserve energy.



4.2.2 Pedestrian Master Plan and Bicycle Master Plan

The City's Pedestrian Master Plan, adopted in 2011, and the Bicycle Master Plan, adopted in 2016, are representative of the City's commitment to creating a walkable and bicycle friendly environment in Rancho Cordova. Providing a reliable active transportation network provides community members with opportunities for both recreation and transportation, while contributing to a healthier, cleaner community. The Bicycle Master Plan creates a connected network of trails that serves both cyclists and pedestrians, while the Pedestrian Master Plan further identifies improvements needed in specific neighborhoods such as sidewalk gaps or damage or dangerous intersections.



While the City has taken positive steps by creating these plans, neither plan considers trees or the urban forest as an important element or amenity of bicycle and pedestrian routes. During public outreach for the Pedestrian Master Plan, one respondent indicated "lack of shade" as a factor that affects walkability. Additionally, Goal 3 of the Bicycle Master Plan aims to ensure adequate support facilities throughout Rancho Cordova's bicycle network, including the provision of shade structures. As both plans identify a common need for shade, there is an opportunity for the urban forest to support both plans, which would provide multiple benefits to pedestrian and bicyclists, as well as the community at large.



Trees provide shade while also contributing to the utility, attractiveness, safety, and comfort of the City's walking or cycling routes. Cities with tree-lined transportation routes are perceived more positively, and studies have shown that inclusion of trees and other landscaping in the streetscape also contributes to the perceived and actual safety of roads for bicyclists and pedestrians (Wolf 2010; Lusk 2020). In one study, surveys conducted among bicyclists and pedestrians revealed that most respondents preferred trees between the road and pedestrian and/or bicycle routes because of increased safety, reduced temperatures, and a reduced perception of traffic and pollution (Lusk 2020). Further, studies have shown a correlation between the presence of street trees and increased pedestrian activity (Ewing 2016). Appropriately placed trees in the streetscape can result in traffic calming, with studies showing a significant reduction in vehicle travel speeds on roads where trees are present (Topp 1990). Other studies analyzing vehicle accidents on urban roads have found that

vehicle crashes were reduced by as much as 67% on road segments with street trees and traffic calming treatments as opposed to roads without these improvements (Dumbaugh 2005, 2006). Consequently, roads with street trees and landscaping further increase pedestrian and bicyclist safety by influencing safer driving practices and by providing a buffer between vehicles and other modes of travel if these elements are appropriately placed between the road and bicycle or pedestrian travel routes.

By considering trees as not only an amenity but a necessary element of bicycle and pedestrian infrastructure, the City can improve its active transportation routes by providing a cooler, safer, and more pleasant experience for cyclists and pedestrians. Appropriate tree selection, placement, and maintenance are important factors to consider to ensure unobstructed views and to avoid conflicts with existing infrastructure.

4.2.3 Rancho Cordova Municipal Code

The Rancho Cordova Municipal Code documents the official policies, ordinances, and laws adopted by the City. The municipal code contains policies and guidelines related to management and maintenance of the City's tree population, permitted actions related to trees/tree removal, and expectations for property owners. **Table 4-5** presents the sections of the municipal code that contain policies related to trees and organizes these sections by the general theme addressed in these sections. Title 19 is discussed in detail in the following section.

4.3 Urban Forest Protection – Tree Preservation Ordinance

The City Municipal Code Chapter 19.12 provides the definitions of a protected tree on private property, conditions for removal, tree replacement requirements, and enforcement procedures. The ordinance lists multiple reasons for the purpose and intent of the tree preservation ordinance, including that "trees are a community asset that cannot provide benefits without human maintenance, care, and protection" (Municipal Code 19.12.010). It also recognizes that trees on both public and private property contribute to the City-wide canopy cover and related benefits Municipal Code 19.12.010). Finally, the purpose of the ordinance is stated in item b: "it shall be the policy of the city to preserve all trees possible through its development review process."

Table 4-5: Municipal Code Policies Related to Trees

Theme	Municipal Code Title/Chapter/Section
Tree Protection	Title 19 Trees • Chapter 19.04 Protection of Public Trees • Chapter 19.08 Dutch Elm Disease Control • Chapter 19.12 Preservation and Protection of Private Trees
Tree Maintenance	Title 23 Zoning • Section 23.716.110 Tree Pruning
Standards for Private Property	Title 16 Buildings and Construction • Section 16.18.1703 Standards for residential property • Section 16.18.1704 Standards for commercial property
Planning activities	Chapter 22.180 Water Use and Conservation • Section 22.180.060 Submittals • Section 22.180.070 Irrigation system design criteria • Section 22.180.080 Plant Selection Title 23 Zoning • Chapter 23.352 Overlay Zoning • Chapter 23.513 Streetscape Type and Frontage Type Standards • Chapter 23.1005 South Sunrise Auto Dismantler Special Planning Area • Chapter 23.716.070 Parking lot landscape • Chapter 23.716.808 Removal of landscaping and trees from approved plans • Chapter 23.716.090 Replanting requirements and replacement fee • Chapter 23.716.100 Landscape care and maintenance
Prohibited activities	Chapter 5.50 Cable Television OrdinanceS • Section 5.50.460 Tree Trimming

The City's stated purpose provides the framework for the various components that comprise the implementation of the ordinance and an important understanding of why the City has the ordinance. The emphasis on preservation during development is highlighted as it supports UFMP discussions in the beginning of this chapter. It also aligns with the canopy analysis presented in Chapter 3, which shows that private property owners manage most trees throughout the City. For the City to achieve long-term canopy cover goals, and related tree benefits, it must have an effective ordinance to protect and preserve trees on private property. The following sections discuss the tree preservation ordinance, what aspects move the City towards a sustainable urban forest, and areas for improvement.

4.3.1 Definitions

The definition of a protected tree on private property, based on species and tree size, has significant implications on the quantity of trees that fall under the ordinance. This in turn impacts the scale with which the City will have to work with private property owners to manage permit applications and enforce penalties for violations. The City provides four definitions of when a tree is protected and one when a tree is not protected, listed below:

"Protected tree" means:

1. Native oak – *Quercus lobata*, valley oak; *Quercus wislizenii*, interior live oak; *Quercus douglasii*, blue oak; or *Quercus morehus*, oracle oak – having a trunk diameter of at least six inches or greater; or

2. Any tree species other than a native oak having a trunk diameter of at least 12 inches or greater on nonresidential property; or

3. Any tree species other than a native oak having a trunk diameter of at least 24 inches or greater on residential property; or

4. Any tree planted as a requirement tree for site development, tree permit condition, landscape plan removal replacement, or other designated condition by the public works director or planning director.

5. "Protected tree" does not include any trees for sale within the city sold by a nursery.

The first classification of a protected tree is reserved for oak species native to Rancho Cordova and the greater Sacramento County region when they have a trunk diameter of six inches or greater. Native tree species is a common definition that exists in many municipal ordinances throughout California as they hold a significant historic and cultural value to a community in addition to the environmental and economic benefits. The elevated value of the tree also corresponds to the low minimum trunk diameter of 6 inches, which is considered an immature tree. The City also allows for a cumulative trunk diameter to be taken when a tree has multiple stems coming from the base. Native oak trees often develop with multiple branches coming from the base, and this additional trunk diameter measurement would encompass many small native oaks in wildland or open space settings.

The second and third classifications place protection value on tree size and not tree species, which is an important point of distinction within the tree preservation ordinance and aligns with the stated purpose of the ordinance in that all trees contribute to City-wide canopy cover. The lower trunk diameter standard for nonresidential properties places a higher expectation for tree preservation on commercial and business properties. It also assumes that commercial and business property owners can afford the additional expenses associated to preserve and protect a larger total of trees during site development. Residential property owners are only expected to preserve trees that can be considered mature, which lowers the potential for tree preservation and related costs.

The fourth classification ensures that trees planted to replace removed trees are not then allowed to be removed without oversight at a later date. Trees on commercial properties and trees planted by developers as a part of new housing developments are considered protected under this classification.

4.3.2 Application Procedure and Decision Criteria

The application procedure involves seven steps and information requirements for the City to complete a review. The first piece of required information is a brief written statement from a certified arborist to justify why the permit is needed. It is important that the City requires any tree management decisions, or condition and health assessments, to be made by a certified arborist. This helps to ensure, but does not guarantee, that the information is accurate and reflects arboricultural best practices. The City

should always include an internal review from a City staff or contracted arborist to verify the claims made by the applicant. The procedure then includes information that is frequently requested by municipal agencies to process protected tree permits including tree species, size, canopy spread, condition, and a site map.

After the City receives the permit application, the Public Works Director will decide on permit approval or denial based on 15 different decision criteria. The list is thorough and helps to provide a clear understanding to applicants of when a permit will be approved. The decision criteria include determinations of tree health and condition, structural soundness, risk, and whether alternatives exist to tree removal. These decision criteria should only be made by a City arborist, or contracted third party arborist, so tree management decisions are supported by arboriculture practices. It will also encourage an informed conversation of reasonable alternatives to tree removal to ensure tree preservation during site development.

4.3.3 Emergency Conditions

The ordinance allows for protected trees to be removed in the case of an imminent or serious threat to the health and safety of the community. An application must be submitted within 10 days of removing the protected tree. Assessing risk is a specialized field of arboriculture that is based on a series of determinations including the tree's likelihood of failure, the likelihood of impact with a potential target, and the severity of consequences should failure and impact occur. It is not clear who can make the determination of an emergency condition based on the language of the ordinance, which may lead to persons unqualified in risk assessment deciding on emergency tree removal.

4.3.4 Tree Replacement Plan

Applicants who are granted approval to remove a protected tree are required to replace the tree per the standards of the ordinance. Tree replacement for single or duplex-unit dwellings must replace each removed protected tree with one tree, and in any other location it is required to replace each inch of DSH removed at a 1:1 ratio. For example, a protected tree with a DSH of 24 inches would require 24 inches of DSH replacement. Replacement DSH is broken down by nursery stock size in the following manner:

- 15-gallon tree = 1-inch DSH
- 24-inch box tree = 2-inch DSH
- 36-inch box tree = 3-inch DSH

Using the example of removing a 24-inch DSH tree, a single or duplex unit dwelling would have to replant one tree, while all other locations would require tree replacement that could vary from twenty-four 15-gallon trees to eight 36-inch box trees.

It is not clear if this policy aligns with the purpose of the tree preservation ordinance and would achieve canopy cover goals of the UFMP based on the high variance in tree replacement between single and duplex-unit dwellings and all other properties. Single and duplex-unit dwelling replacement requirements may not replace lost canopy if a small tree replaces a large tree and does not account for tree mortality. It may also take decades to recover lost canopy when a removed tree is replaced with a comparable species. Conversely, the replacement for all other properties may have encourage the use of small stature trees so the development site can accommodate the tree planting requirement. If the site cannot accommodate all replacement trees, then a payment of in-lieu fees can be made to the City Tree Program Fund. While this has the benefit of generating revenue to fund tree planting projects in low canopy locations, it may detract from developing site plans that optimize canopy cover where tree removal occurred.

Section 19.12.120, Section C, Replacement Options, item 3, describes an option for applicants to receive a replacement credit for preserving trees on site smaller than size requirements of private protected trees. Applicants can receive a 1-inch of DSH credit for every 1 inch of DSH preserved that would count towards the total DSH replacement requirement for the site. This approach encourages the preservation of existing trees that are already established in the landscape and would not require establishment care. It would also minimize the loss of canopy cover and time it will take to replace canopy cover on the site.

4.3.5 Activity Allowed Near Protected Trees

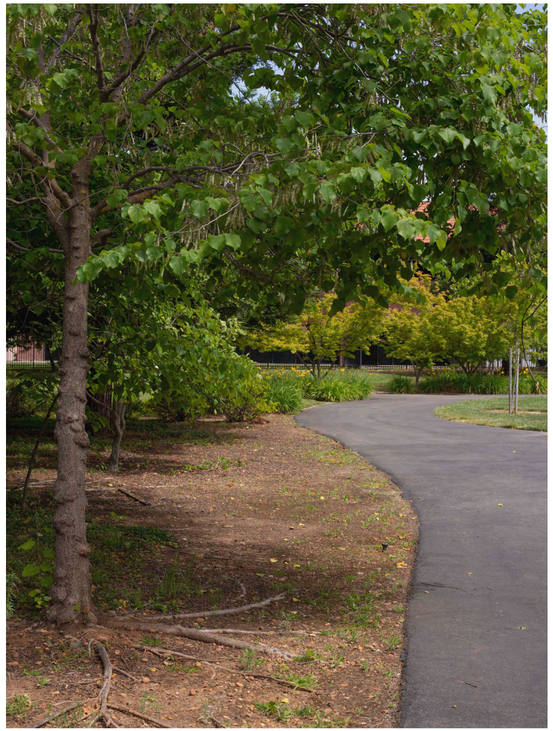
Sections 19.12.090 and 19.12.100 define the activities that are allowed and prohibited in proximity to protected trees or within their driplines. Both sets of conditions are reasonable to protect trees and follow International Society of Arboriculture Best Management Practices. Prohibited actions are generally avoidable situations that can harm a tree. Allowed actions in general may encroach underneath

the dripline of the tree without causing harm to the tree.

4.3.6 Tree Protection Measures

Section 19.12.140 defines the scope and measures to protect trees when grading under the dripline and asserts that no disturbance should occur underneath the dripline of a tree. It also recognizes that in some instance's construction-related activities will have to occur underneath the dripline and describes the procedures to preserve root health and structure. Protection measures state that roots 2 inches or greater in diameter within the tree's dripline shall not be cut, which encourages tree stability and health. It is not understood how feasible this policy is during site development and whether the policy could lead to tree removal if roots 2 inches or greater require pruning. Root size is one factor to consider when making decisions about whether root pruning will impact tree stability and safety. It is also important to consider the distance from the trunk to the pruning cut, as the impact on tree stability lowers as the root pruning distance from the trunk increases. The impact of root pruning must also consider the total proportion of roots pruned, as stability decreases with an increase in total roots pruned.

Section 19.12.150 defines the development control measures that may be mandated to mitigate the damage caused to protected trees during land development. The measures restrict construction-related activities within the dripline of a tree by limiting the extent of grading, trenching, and backfill to maintain soil health and tree vitality. The section also defines appropriate measures to irrigate and maintain landscape underneath native oak trees. The construction limitations uphold arboricultural practices to sustain tree health during and after construction, and implementation is at the discretion of the City. This allows for flexibility in applying the standards and may encourage site developers to work around and preserve protected trees.



4.3.7 Effectiveness of the Ordinance

The effectiveness of the Rancho Cordova tree preservation ordinance depends on residential property owner and developer awareness of its existence. City staff and community members expressed in interviews and community meetings that they believe most residential property owners are unaware of the ordinance. This is supported by the online survey results, where 78% of respondents indicate that they were not aware of the City urban forest program prior to taking the survey. The lack of awareness of the tree preservation ordinance can lead to private property owners inadvertently removing or pruning a protected tree without receiving City approval. The effectiveness of the ordinance also depends on the ability of the City to enforce the policy and whether penalties are sufficient to deter violation. It can be difficult to determine when and where violations occur, and when the City is unaware of violations, it cannot administer penalties to recover lost canopy. Educating private property owners about City policies that govern trees on private property, as well as the value of the urban forest would help deter violations, preserve canopy, and ensure the planting of replacement trees.

The ordinance replacement plan policy may also benefit from basing replacement requirements on the preservation and expansion of canopy cover, so it aligns with the purpose of the ordinance and UFMP goals. Replacement policies directed toward preserving a percentage of canopy cover that varies for residential and commercial properties would help accomplish City goals and provide further justification for the total number of required replacement trees. The policy could also include a time frame by which the replacement plan would recover lost canopy to ensure a more immediate return of lost

environmental services. This strategy can be coupled with the current tree replacement ratios and in-lieu fee program ($165/inch of trunk diameter) to ensure that even if a target canopy cover is maintained on the developed property, the lost canopy from the removed trees is replaced.



Recommendations:

Chapter 4: Development and Urban Forest Protection		
Section	**Recommendation**	**Discussion**
4.1.1 Community Specific Plans	Update all Specific Plans to reflect the goals and strategies presented in the UFMP.	Specific Plans are tools used to guide new development in the city, with most lacking a meaningful inclusion of trees in the planning process and a recognition of community benefits provided by trees.
4.1.1 Community Specific Plans	Ensure trees are included in the first stages of community development.	Trees are often the last piece of city infrastructure to be considered in how new residential communities are developed which has led to trees being planted in locations where they experience conflicts with other infrastructure like sidewalks.
4.1.2 Role of Community Development Department	Develop mechanisms that require or incentivize trees to be preserved during site development when feasible.	The city currently has no requirement to or incentive to preserve existing trees during site development allowing for the removal of mature trees that could otherwise be preserved. The removal of mature trees results in lost canopy cover that can take 20 or more years to recover, if at all.
4.1.2 Role of Community Development Department	Require certified arborists to complete tree surveys and reports submitted to the city for development projects	The city does not require a certified arborist to prepare tree surveys and reports. This information should only be collected and presented by a professional certified arborist to ensure it is accurate in determinations of tree health and preservation.

4.1.2 Role of Community Development Department	Require a certified arborist to review all tree surveys and reports submitted to the city.	The city is beginning to increase the frequency of utilizing an arborist to review development plans, which is important to providing an assessment of tree preservation, tree species selection, and if tree species are provided enough growing space in the built landscape.
4.1.3 Design Guidelines	Revise Design Guidelines to allow planter strips to separate sidewalks from the street edge in areas with high pedestrian activity.	Trees located in planter strips helps to increase safety for bikers and pedestrian's activity by providing a physical buffer between the road and sidewalk.
4.1.3 Design Guidelines	All new development, including new residential home communities, should be designed with parkways that are a minimum of 8' in width between the curb and sidewalk.	Design Guidelines currently call for a 5' minimum parkway width which is too small to accommodate medium and large stature trees. This minimum requirement has led to tree and sidewalk conflicts and the planting of smaller stature trees.
4.1.3 Design Guidelines	Create standards that maximize the potential for energy efficient homes and communities by ensuring trees can shade and cool homes/buildings without interfering with the ability of solar panels to generate energy.	The Design Guidelines identify shade trees and solar panels as opportunities for building energy efficient homes but does not provide guidance on how to do so.
4.1.3 Design Guidelines	Review and update the parking lot shading requirement so it is directed towards encouraging the planting of large stature shade trees.	The requirement of 50% shading for parking lots has standards, including planting areas that are a minimum 6' width and minimum 25 square feet, which encourage the planting of small stature trees that do not provide the same level of environmental services as large stature trees.
4.2.1 Rancho Cordova General Plan	Review and update the General Plan based on goals, standards, and recommendations presented in the UFMP.	The General Plan contains multiple goals and policies related trees and the urban forest that could be further enhanced by implementation of the UFMP.
4.2.2 Pedestrian Master Plan and Bicycle Master Plan	Update the Pedestrian Master Plan and Bicycle Master Plan to incorporate trees and strategies of the UFMP.	The Pedestrian Master Plan and Bicycle Master Plan do not include a discussion of trees and should be updated be developing an approach to using trees as an enhancement of walking and biking paths and corridors.
4.3.2 Application Procedure and Decision Criteria	Include City arborist or on-call third party consulting arborist review of all tree removal permit applications.	It is critical to have an arborist provide a review of tree removal permit applications to ensure the provided tree information is accurate, whether removal is warranted, and to evaluate the possibility to preserve the tree in the landscape.
4.3.3 Emergency Conditions	Update the process for emergency conditions so a City designated certified arborist who is ISA Tree Risk Assessment Qualified is required to decide the appropriate response to high-risk trees.	Decisions on appropriate responses to tree emergencies involve an assessment of risk that should only be made by an arborist who is qualified to determine the level of risk and recommend mitigation measures to reduce the level of risk associated with the tree.
4.3.4 Tree Replacement Plan	Review the tree replacement ratios to ensure they replace lost canopy over a 15-year time frame and promote the use of medium to large stature trees.	It is not clear if the replacement ratios for permitted tree removals will effectively increase canopy cover over time or can be consistently applied. This has the potential to lead to difficulties in enforcing the replacement policy and declining canopy cover.
4.3.7 Effectiveness of Ordinance	Increase public awareness of the tree preservation ordinance.	Results of the online survey reflect that 78% of respondents were not aware of the city urban forest program prior to taking the survey. It is reasonable to assume that they are also not aware of other tree related policies, like the Tree Preservation Ordinance.



CHAPTER 5
COMMUNITY ENGAGEMENT AND PARTNERSHIPS

5.1 Community Engagement

Authentic community engagement is a cornerstone of developing a UFMP that reflects the goals, needs, and priorities of the City's residents and business owners. To understand how the Rancho Cordova community thinks and feels about trees, and how these perceptions affect the urban forest, the consultant team conducted several community engagement activities.

Due to the COVID-19 pandemic, many of the community engagement initiatives that were originally planned as in-person events needed to quickly transition into online efforts and gatherings. Direct conversations occurred through community meetings and stakeholder interviews to help guide the direction of the UFMP and further refine project goals to reflect residents' values. The online and media engagement included a project webpage, online survey, educational video, social media posts, and print flyers. A community survey was created to identify the public's perception and understanding of the City's trees, and to offer a space for public feedback as the City develops its UFMP. The following chapter details the approach, process, and results of UFMP community engagement. It also includes a description of current partnerships, the benefits of those partnerships, and opportunities to grow the partnerships to increase the impact of the urban forest program.

5.1.1 Equity and Inclusion

Trees are often sparse in disadvantaged communities due to socioeconomic and race equity issues (American Forests 2021). American Forests coined the term "Tree Equity" to address issues that are a result of a lack of canopy cover in these areas, and to initiate a culture of ensuring that every neighborhood has enough trees so that all residents can reap the benefits they provide.

The first step in addressing tree equity is to include the community in the analysis process. Urban forest management within any city includes multiple actors across all levels of city staff, elected officials, business community, community organizations, and community members, with each actor playing a different role in creating a healthy urban forest. While community engagement and inclusion in urban forest programs often relies only on gathering volunteers to supply labor for tree plantings and establishment care, this narrow view of community engagement misses the fundamental benefits of involving the community (Kuhns n.d.).

5.1.1.1 BARRIERS TO EQUITY

While much of the existing housing and infrastructure lies to the northwest of the City, the southeast portion of the primarily consists of undeveloped land and scattered iwith riparian areas that comprise the historically tree-abundant parts of the City. This separation of development has led to certain views that City investment will favor new suburban development in the southeast part of the City, over the existing developed urban footprint of the City. This opinion is not consistent with actual investment of City resources and reflects an opportunity to educate community members on how resources and services are dispersed throughout the City. The challenge for the City will be to demonstrate what City services are available to residents and how they benefit their community.

Individual residents also face several barriers to owning and maintaining trees. Over 55% of the City's residents are renters who may not have the final say in when, how, and what kind of trees are planted in their areas. Renters often cannot make lasting changes to an area because their housing situation may be seen as temporary, either by the renter, the landlord, or the City. During community meetings, residents addressed the need for tree canopy near bus stops, sidewalks adjoining major arterial roads, and mobile home communities. In addition, one resident mentioned that the lack of trees in high-rental areas contribute to an unsafe recreational environment, when lack of shade on high heat days becomes dangerous. As temperatures continue to increase due to climate change, the City will need to address and adapt to the tree canopy concerns of renters, which may be compounded by limited planting space in apartment complexes.

Financial resources are also a barrier to tree equity. While free trees are provided to Rancho Cordovans through Sacramento Municipal Utility District (SMUD) and the Sacramento Tree Foundation (SacTree), residents who plant trees in their yards may not have the discretionary income to care for these trees. Trees require establishment care, soil amendments, and pruning that can make them cost prohibitive. Pruning of large trees can cost thousands of dollars depending on the condition of the tree. Watering costs are often a concern for residents when they learn they need to supply 10 to 15 gallons of water per week to each tree for its first 3 years of growth. Realistically, however, watering only increases water bills incrementally (CUFC 2015).

Lack of knowledge about tree maintenance and care can also be a barrier to establishing trees in the City. Varying methods of tree pruning, and maintenance are often used in urban areas to address problems such as overhanging limbs or conflicts with utilities, and poor pruning practices can affect tree health and safety. Residents may not be able to identify proper tree maintenance practices and would assume that what is being done is correct. Further, when selecting trees to plant, those that are poorly adapted to climate or site conditions can lead to tree mortality, and proper species selection will continue to be important as the City experiences the effects of climate change in coming years. Intentional educational outreach with community members may improve issues of tree equity in the City.

5.1.2 Public Feedback Results

5.1.2.1 COMMUNITY MEETINGS

In partnership with Dudek, Sacramento Tree Foundation, and Urban Forest Innovations, the City held two online community meetings on December 10 and 14, 2020, attended by 18 participants. The meetings included an introduction to the City's UFMP project and process, with a presentation on the importance of trees to living in Rancho Cordova. Attendees could contribute by speaking publicly to the group during the meetings, contributing comments using Zoom's chat feature, and submitting feedback using the City's tree website. Extensive notes were taken during each meeting, and comments were analyzed to determine major community themes, values, and priorities that residents had for the City's urban forest.

At several points during each meeting, attendees expressed a major priority that native and existing urban forest cover should be preserved as habitat for birds and other wildlife. One resident wanted to ensure that those who maintain City trees are properly trained to deal with nesting birds found in trees. Attendees placed a high value on the American River Parkway, both as a critical recreational area for Rancho Cordovans and as a tourist attraction for the City. As such, several residents shared the desire to protect and increase the tree canopy along the Parkway.

Many residents said they would like to see a culture of City ordinances that are equitably enforced for both developers and private citizens alike, especially when planting native trees and preserving the existing urban forest and heritage trees. Attendees also desired more education about tree

planting and maintenance. While many of the attendees were familiar with existing tree programs provided by the City and Sacramento Tree Foundation, many wanted more resources and support relating to tree establishment, pruning, planting, maintenance, and care.

Because the City continues to develop and expand, meeting attendees were concerned with how utilities and housing plans inform and impact the urban forest canopy, especially with regard to tree maintenance and issues with infrastructure damage from trees (sidewalks, pipes, etc.). Residents noticed that high-density housing areas lack large trees, and although these larger trees are incorporated into park and parklet designs, homes and apartments in these areas do not receive the cooling benefits compared to less densely developed areas of the City.

Residents repeatedly addressed the need for community education surrounding the urban forest, free tree programs, and incentives for residents to plant trees. They highlighted the importance of having a consistent staff person to build trust in community education and serve as a mainstay for volunteers and acknowledged the turnover in the role in recent years. They spoke of the importance of developing a community culture around volunteering and community outreach to build consistency. Residents pointed out that volunteers that attend community tree planting events do not typically live in the City, and while their efforts benefit the community, it would be more impactful to engage Rancho Cordovans in the improvements. Conversely, residents mentioned several volunteer tree planting events that were a success at the time, but their planted trees were removed a few years later to make room for new construction. These decisions hurt residents' trust in the City, and detracted from the volunteer culture.

Residents were also concerned with the new housing development that lacked trees in the new designs and prioritized pavement and parking instead of large trees. They were outspoken about the equity and enforcement of the tree ordinance and wished that it applied to all trees rather than only large ones. They also addressed the importance of increasing tree plantings around public transit stations, bus stops, and residential corridors.

Finally, residents stated that the City's tree program has potential to provide job training to at-risk youth, and were in agreement that green job training internships, opportunities and incentives for disadvantaged areas of the City, and increased participation to benefit and participate in tree planting efforts could build community trust and ownership of the City's trees.

5.1.2.2 ONLINE SURVEY

An online survey was created to identify the public's perception and understanding of the City's trees, and to offer a space for public feedback as the City develops its UFMP. The 20-question survey was open between October 26, 2020, and February 7, 2021, and was distributed through various City social media outlets, local newspapers, outreach events, and communications sent by City staff. Major themes of the survey questions included the following:

- The attitudes and feelings respondents have towards trees
- How much respondents know about trees and how to maintain them
- How willing respondents would be to support policies that protect trees on private property
- How willing respondents would be to support programs that grow trees in the public space
- Demographics of survey respondents

A full list of survey questions and responses can be found in the Appendix. In total, 236 survey responses were recorded. Of the respondents, 81% live in Rancho Cordova, with representation from each of the City's zip codes (**Table 5-1**). **Table 5-2** highlights other relevant survey respondent demographics, and how they compare to City Census demographic data. The survey respondents are skewed towards older, single-family homeowners, with higher levels of education than the average City resident. Although many efforts were taken to engage diverse groups of residents, it is important to recognize the limitations of the survey results, and to highlight the fact that the opinions of renters, residents under 50, and non-English speakers are less likely to be represented.

5.1.2.3 COMMUNITY VALUES AND CONCERNS

Over 97% of survey respondents agreed that trees are a valuable asset to Rancho Cordova that contributes to their quality of life. City development was addressed numerous times as a resident concern during community meetings,

Table 5-1: Zip Codes of Survey Respondents

Zip Code	Percent of Respondents
95827	14%
95670	57%
95655	2%
95742	14%
Other	14%

Source: Rancho Cordova Public Survey 2020

Table 5-2: Demographics of Survey Respondents Compared to Demographics of the City of Rancho Cordova

Category	Demographics of Survey Respondents	U.S. Census Demographics of City of Rancho Cordova
Age	52.5% 50 or older	25% 54 or older
Housing Type	89% single-family home	58.6% single-family home
Housing Status	84% homeowner	55% homeowner
Language spoken other than English	3%	33.9%
Level of Education	71% bachelor's degree or higher	27% bachelor's degree or higher

Source: U.S. Census Bureau 2019 and Data USA 2018.

resident interviews, and the public survey. Over 95% of respondents said large, healthy trees were important to consider and prioritize as the City grows and builds new neighborhoods. Because many residents expressed concerns and lack of trust for new development projects and the impacts the projects will have on trees, a key component of new development should include involving residents in the design and review process and increasing transparency by specifically addressing the ways that trees may be affected. The City should strategize ways to meaningfully include residents in the process.

Residents also saw the importance of increasing canopy cover in areas of the City that currently lack it. Eighty-six percent of survey respondents agreed that it was important to support low-income residents by planting and maintaining shade trees in areas that have fewer trees. Further, a core issue to preserving and growing the City's canopy cover will depend on the willingness of single-family homeowners to protect and plant trees on their property. Many respondents addressed the need for more educational programs and marketing of free tree services that the City already provides, as 78% of respondents indicated they were not aware of any City tree programs that help residents. Increased awareness of water needs, information on proper pruning tactics, and an understanding of what to do when private trees damage City infrastructure was requested as well.

The American River Parkway and walking/biking trails throughout the City were frequently addressed in community outreach. Residents saw the need to preserve the parkway for both recreation and tourism. Community members stressed the importance of maintaining the space with large, native shade trees to ensure safety and comfort while using the trails. This unique resource in Rancho Cordova has the space that native trees need to successfully establish, and planting native trees in an urban wild setting could increase their potential to serve as high-quality wildlife habitat, which is another community priority.

5.2 City Partnerships

The UFMP guiding principle of "Engagement and Partnerships" emphasizes the value the City places on sharing resources and expertise to achieve the best possible outcome for the urban forest and stakeholders of Rancho Cordova. This is reflected in the goal for the guiding principle: "priorities of the urban forest program are developed with and achieved by collaborating with community members and external stakeholders." The City exhibits this guiding principle in partnerships with external stakeholders including the Sacramento Tree Foundation (SacTree), Sacramento Municipal Utility District (SMUD), Cordova Recreation and Parks District (CRPD), and Folsom Cordova Unified School District (FCUSD). While the depth of each partnership varies, they all present an opportunity to further expand the level of urban forest program services provided to the Rancho Cordova community. In

addition, during interviews with the consultant team, each City partner expressed a willingness to explore avenues to enhance its relationship with the City. The following section will discuss the structure of each partnership, the benefits provided to the community, and opportunities to leverage resources to enhance urban forest program services.

5.2.1 Sacramento Tree Foundation

SacTree was founded in 1982 with a mission to 'grow thriving communities through stewardship of our urban forest' (SacTree 2021a). The mission is expressed in programs that seek to create a healthy urban forest for all residents and focus on historically underserved and under-canopied neighborhoods within the City of Sacramento and the greater Sacramento County region. SacTree has multiple programs to equip community members to successfully plant and care for trees at their homes and surrounding neighborhoods. The equipping of community members is further leveraged with support from SacTree staff and resources such as free shade trees that it receives through its partnership with SMUD. In total, SacTree has been able to engage, train, and educate approximately 180,000 community members and plant and tend to 500,000 trees throughout its history (SacTree 2020a).

SacTree started working in Rancho Cordova neighborhoods in 1990 and formalized its partnership with the City of Rancho Cordova in 2015, by contracting 50% of one staff member's time to assist in building capacity of the urban forest program. In 2018 Rancho Cordova received a CAL FIRE grant that provides funds to SacTree so they can provide full-time staff member support to the City through March 2022. The SacTree Neighborwoods Organizer functions as an extension of City staff, deepening the City's level of community engagement to increase the number of trees planted in parks, schools,residential yards, and other private property to help meet urban forest program goals.

5.2.1.2 NEIGHBORWOODS PROGRAM

The City and SacTree partnership is the main driver of tree planting engagement activities in the City. All City tree plantings, not including plantings in City owned street tree corridors are facilitated through SacTree's Neighborwoods Program, a process led by SacTree staff to educate, train, and support community leaders in planning and implementing tree planting projects in the neighborhoods where they live. The Neighborwoods Organizer also coordinates tree planting efforts by the Sacramento Regional Conservation Corps, primarily in Severely Disadvantaged Community areas, volunteer-based tree planting events, and other community engagement initiatives. The program is based on building relationships with the community before decisions are made about where trees will be planted and who will be responsible for their care. This model emphasizes that those who are going to be responsible for the ongoing care of neighborhood trees should be allowed to help decide how the tree planting project will be designed and implemented. With direction from the community their needs are included in the outcome of the tree planting effort and in the project design. The intended result is a healthier urban forest, increased social cohesion, community action to improve social and environmental issues, better access to City resources, and increased ability to organize politically (SacTree 2020b). Through these engagement efforts in the last 6 years, SacTree has planted 1,700 trees and held 18 community volunteer tree planting events. The events have engaged 1,000 volunteers, with 17% of those volunteers being City residents and the remaining coming for other communities in the Sacramento region.

5.2.1.3 SACRAMENTO SHADE

SacTree also contributes to growing the urban forest by facilitating the Sacramento Shade program, which provides free trees to Sacramento County residents and SMUD customers (SacTree 2021b). All private property owners in the City are eligible to receive up to 10 free shade trees to plant around their property. SacTree staff will conduct a site visit to the property and work with the owner to determine the best locations to plant trees on the property and select tree species. After the site visit, SacTree will coordinate the delivery of shade trees to the property along with stakes, ties, and instructions on how to plant and care for the trees. The property owner will then plant and care for the tree, with SacTree staff available to help answer any questions. Sacramento Shade is an opportunity for the City to increase canopy cover on private property as the program has planted 2,300trees on residential, commercial, and public properties throughout Rancho Cordova over the last 6 years.

5.2.1.4 CITY AND SACTREE PARTNERSHIP

Multiple factors contribute to the effective partnership between the City and SacTree. First, they both approach urban forestry from a shared set of values and goals, to

increase tree canopy cover in underserved communities through meaningful community engagement. The partnership also benefits from clearly defined roles and responsibilities that are based off the strengths and resources each partner provides. SacTree fills its role as experts in engaging and educating residents, and provides the resources of its programs, staff experience, and free shade trees. The City fills its role as the manager of public trees by providing staff resources to navigate City permitting and provide arboriculture knowledge, as well as acquiring funding to grow the program.

While the partnership is effective in trees being planted through community engagement, it is not evident that the current scale of the program will progress the City towards UFMP goals. A total of 4,000 trees have been planted on streets, public property, and private property over a 6-year period through SacTree engagement programs. As stated above, 2,300 of those were through Sacramento Shade which is an existing program that functions without City investment. An additional 1,700 trees were planted through the City and SacTree Neighborwoods partnership, a 43% increase in plantings within the City as a result of its investment in SacTree engagement staff. As discussed in Chapter 3, Growing the Urban Forest, of the UFMP, it may take planting as many as 1,000 trees per year to increase canopy cover to 20% over 40 years. The average annual planting of trees would fall short of the target and require supplemental planting efforts by the City to reach canopy goals. The free shade tree program for private property has the potential to plant trees on residential properties at a higher rate than street tree plantings due to the number of trees that can be planted per property and given that private property makes up the majority of the City's plantable space. Shifting the focus of SacTree engagement efforts toward private property tree plantings and increasing in this program may make it possible for the City to reach its canopy cover goals.

One limitation in this partnership is the capacity of SacTree to leverage Sacramento Shade to provide free trees to the City. While the City invests in added staff support for outreach and engagement, all the trees and technical support from SacTree rely exclusively on their existing programs. As demand across the region for tree planting projects increases, SacTree will not be able to scale up support without further financial investment in their underlying programs.

Another limitation of the partnership described by SacTree staff during interviews with the consultant team is how they are able to conduct community engagement and advocacy efforts. SacTree attempts to build deep relationships with community members as they work together to bring about a positive change in their neighborhoods. Community members look to SacTree for leadership and guidance in organizing tree planting efforts and to vocalize support for their concerns with elected officials. At times community members can be at odds with City management decisions and have an expectation that SacTree will advocate on their behalf. This creates tension for SacTree staff as they are placed in a position of having to carefully navigate both relationships.



5.2.2 Sacramento Municipal Utility District

SMUD provides electric service to most of Sacramento County and small portions of adjacent Placer and Yolo Counties (SMUD 2021). SMUD has a goal to reach zero emissions in its power supply by 2030 (SMUD 2021b), which will be achieved in part through clean energy sources such as solar power. It will also be achieved by efforts to reduce energy consumption such as planting shade trees to cool homes during hot summer months.

This decision led SMUD to develop the Sacramento Shade program with SacTree and begin its partnership in 1990 to engage customers in receiving free shade trees, leading to the planting of over half a million trees (SacTree 2021b).

SMUD inspects and prunes more than 200,000 trees in its 900-square-mile service area. Depending on species, SMUD contractors prune trees to maintain between 12 feet and 20 feet of clearance between canopies and overhead lines. There is currently limited, if any, coordination between SMUD and the City on utility line pruning, and both agencies have identified the need for improved coordination, especially in planning, design, and implementation, to prevent future tree/infrastructure conflicts.

The partnership between SMUD and SacTree is based on the shared values and goals to increase canopy cover so residents can receive the environmental benefit of trees. Like the SacTree and City partnership, SMUD provides financial resources to SacTree so it can implement community engagement and education programs and facilitate the distribution of shade trees. SMUD funding supports 11 full-time SacTree staff and the purchase of nursery stock and planting supplies. SacTree staff are responsible for consulting with residents and property managers, selecting tree species, siting tree locations, delivering trees, and conducting follow up stewardship support.

Originally the program would only allow trees to be planted in locations that would directly lower energy use, but the program focus shifted to increasing canopy cover, and the requirement was removed. While the program annually contributes 10,000 newly planted trees to the Sacramento County urban forest, SMUD staff stated during interviews with the consultant team that space exists on private property to plant significantly more trees. SMUD staff also reported a 36% mortality rate of trees and cited trees not being planted as the main cause. This indicates that while the partnership is effective in distributing large number of trees to Sacramento County, improvements could be made to ensure trees are planted in locations sited by SacTree staff.

Rancho Cordova is leveraging the free shade trees provided through the SMUD partnership with SacTree in multiple ways. As discussed, the City can offer the SMUD-sponsored free shade trees to private property owners to plant around their property, instead of using City funds to pay for this service. The City can also leverage free shade trees as matching funds on grant applications, which can lower the total grant ask and increase the chances of being awarded a grant. Finally, it allows the City to invest resources for SacTree staff to implement tree planting programs, instead of needing to purchase the trees and planting materials. The partnership between the City, SMUD, and SacTree is a cornerstone of implementing the Rancho Cordova urban forest program and effective in reaching the goals and objectives of all parties.

5.2.3 Cordova Recreation and Parks District

In 1958 Sacramento County residents voted to create a parks district to ensure the maintenance and care for parks. This led to the creation of the Cordova Recreation and Parks District (CRPD), which manages over 600 acres of open space at 40 park locations in Sacramento County, including Rancho Cordova (CRPD 2021). CRPD manages all parks and park trees in the City but is not a City agency. CRPD is an independent special district primarily funded through property assessments and other fees generated through park sites (CRPD 2021). Park trees are largely managed reactively, and the number of trees under CRPD's management responsibility is unknown as CRPD does not have a tree inventory.

5.2.3.1 CITY PARTNERSHIP

City staff and community members frequently expressed in interviews and public meetings the value of parks and open space to the quality of life in the City. Parks serve a different function for the diverse needs of residents. Residents who live in apartments shared that the local park functions as their backyard, providing space for recreation and family gatherings. Other community members placed a high value on parks with native tree species and vegetation that provide habitat for wildlife. CRPD and City staff recognize that parks are a valued shared community space to bring residents together. As such, they frequently partner together and with SacTree to host community volunteer tree planting events and resource fairs at park sites.

The CRPD vision to "empower and engage community pride by being safe, responsive, accessible, innovative and sustainable" aligns with the values of the City and provides a framework for an effective partnership. The City and

CRPD do not have a clearly defined partnership beyond collaborating on community events. Both acknowledge those events as important community activities and recognize there is significant potential to expand the partnership to meet organizational goals. CRPD identified a need to inventory all park trees to understand health conditions and improve tree management practices. City staff identified a desire to increase canopy cover in park sites through tree planting and establishment care. One potential avenue of cooperation to increase urban forest management may be the sharing of staff resources, such as a shared urban forestry inspector position.

5.2.4 Folsom Cordova Unified School District

The Folsom Cordova Unified School District (FCUSD) includes the cities of Rancho Cordova and Folsom with an enrollment of 20,500 students from elementary school through high school (FUSCD 2015). FCUSD is responsible for the management of all public schools and trees on school sites in the City. FCSD staff expressed that current funding levels impact their ability to actively manage trees and creates a reliance on bond funding for campus improvement projects. Tree management is predominantly conducted by contractors on a reactive basis and, due in part to resource constraints, is largely focused on removal. FCUSD landscape design strives to minimize future maintenance requirements, which limits tree establishment. FCUSD's existing tree inventory has guided tree maintenance in the past but is now outdated and requires updating and enhancement to support effective management.

FCUSD used to have a partnership with SacTree, and received trees for school plantings, specifications for planting, and training for school maintenance staff. At some point the partnership ended, and it is unclear why it was not renewed. FCUSD does not have a formal partnership with the City but has partnered with the City on grant funding opportunities.

FCUSD will be building new school facilities in the developing south and east areas of the City. Some community members have expressed concern that the new schools will receive a higher level of investment than already built schools in the north and west developed areas of the City. This concern is part of similar issues expressed to City staff and expresses a desire from community members to have transparency from the City in explaining how resources are being invested. Addressing this issue should be a part of an FCUSD and City partnership. Like CRPD, FCUSD manages a large portion of land in the City with the potential to plant numerous trees and increase City-wide canopy cover. FCUSD also identified a need to update its tree inventory to understand the condition of its tree population that will inform management practices.

5.2.5 Partnership Expansion

While the City of Rancho Cordova manages perhaps the most visible part of the urban forest—its street trees—a range of other actors and stakeholders share in the responsibility for urban forest maintenance. However, with the exception of the City's partnership with SacTree, there is currently little coordination among these stakeholders in establishing and pursuing shared urban forestry goals and objectives, sharing knowledge and resources, and implementing commonly accepted best practices. It is encouraging, however, that all stakeholders consulted through the UFMP development process expressed a willingness to work together and manage the urban forest more holistically and less as disparate units. This enhanced cooperation can be facilitated through the establishment of an interagency urban forest working group with a clear term of reference, to meet on both a regularly scheduled and as-needed basis and address a range of urban forestry issues. Such a working group should be convened by the City, but all members should be considered as equal stakeholders.

A joint grant application is one possible avenue to expand the depth of the partnership between CRPD, FCUSD, SacTree, and the City. A joint grant application would help each organization to have resources to meet program needs and increase organizational capacity. All organizations expressed a willingness to further explore this type of opportunity and have unique resources to bring to a project. Developing a set of specific projects that can be accomplished together will further enhance the potential to receive grant funding.

The City's partnership with SacTree has engaged community residents in urban forest stewardship and contributed to planting thousands of trees in Rancho Cordova. This was a half time position prior to grant funding, and plans are to continue funding the position as half time. The City should seek further grant funding to support this as a full-time position as it is critical in

realizing the UFMP vision and achieving goals and objectives for the City's urban forest.



Recommendations:

Chapter 5: Community Engagement and Partnerships		
Section	**Recommendation**	**Discussion**
5.1.1 Barriers to Equity	Develop strategies to encourage rental property managers to participate in the urban forest program.	55% of Rancho Cordova residents are renters who do not have final say in whether a tree can be planted on the property or the tree is maintained.
5.1.1 Barriers to Equity	Ensure tree planting programs address the long-term maintenance costs of disadvantaged communities.	A resident can receive a 'free tree' from the City but will be responsible for the pruning costs as the trees mature which will place a higher financial burden on low-income households.
5.1.1 Barriers to Equity	Educate community members on proper tree maintenance and pruning practices.	Educating residents on how to properly prune and maintain a tree can save residents money in the frequency and extent that they prune their tree, while also promoting tree safety and maintaining canopy cover.
5.2 Public Feedback Results	Develop relationships with community leaders that are inclusive of the diverse demographics of the City and implement in-person engagement activities to targeted demographics and communities when feasible.	COVID-19 restrictions prevented in-person engagement during the UFMP process and the engagement efforts did not achieve a high level of representation across all demographic segments. Representation from all demographic segments will be important as the City refines strategies to implement the UFMP.

5.2.1.4 City and SacTree Partnership	Determine how to expand the partnership between the City and SacTree to increase community engagement with the city urban forest program, including tree planting activities for residential properties.	SacTree is the main conduit for the city in engaging residents in planting trees on private property. Planting trees on residential and private property is identified in the UFMP as key to increasing canopy cover and will require significant education and outreach in order to effectively meet city goals.
5.2.2 Sacramento Municipal Utility District	Increase coordination between SMUD and the City on utility line clearance pruning, specifically in the planning, design, and implementation, to prevent future tree/infrastructure conflicts.	SMUD prunes trees within the city to maintain 12' to 20' of clearance between trees and utility lines which impacts many trees. Improved coordination between the two agencies on tree related issues would help to reduce the need for aggressive pruning of trees planted under utility lines.
5.2.2 Sacramento Municipal Utility District	Determine how to expand the partnership between SMUD, SacTree, and the City to benefit community members.	The Sacramento Shade free tree program is a cornerstone of the urban forest program and will be an important method for the city to increase tree canopy cover on private property. An expansion of this partnership could potentially address annual tree planting totals needed to reach city canopy cover goals.
5.2.3 Cordova Recreation and Parks District	Continue the partnership between the City and CRPD on tree planting projects in CRPD managed park locations.	CRPD managed parks are a valued asset for residents in Rancho Cordova. CRPD and the city share similar goals to increase trees and canopy cover in park locations providing a solid foundation to expand upon tree planting activities in CRPD managed park locations.
5.2.5 Partnership Expansion	CRPD, FCSD, and the City should collaborate on grant applications to support tree planting, establishment care, and tree inventory activities.	Both CRPD and FCSD have little or outdated tree inventory data which limits their ability to manage trees on park and school locations. A joint grant application between the three agencies could provide the resources for CRPD and FCSD to complete an inventory of the trees they manage while providing funds to the city for tree planting and establishment care.
5.2.5 Partnership Expansion	Develop an interagency working group between SacTree, SMUD, CRPD, FCSD, and the City to coordinate urban forestry activities throughout Rancho Cordova.	The various agencies that work within Rancho Cordova all expressed an interest in a formalized collaboration and coordination of urban forestry efforts in the city. Developing an interagency working group would provide an established method for continued communication and development of programs to meet the shared goals of each agency.



CHAPTER 6
ACTION PLAN

6.1 Implementation Plan

Ultimately, once approved, implementation of this UFMP and its recommendations would be undertaken by the Rancho Cordova Department of Public Works. The Department will be assisted by other City departments that routinely manage, plan, supervise, and interact with the City's trees, as well as community organizations and community members.

The following implementation plan prioritizes actions outlined in the Strategic Plan of the UFMP that the City will act towards completing in the first 1 – 3 years. This order is intended to provide decision makers with a tool to prioritize strategies to streamline UFMP progress towards a sustainable urban forest. The City will continue to review these priorities on an annual basis to reflect the current environmental and economic conditions in the City and as recommended actions are completed. If necessary, additional recommended actions will be included into the priorities of the implementation plan to continue to guide the City's progress towards UFMP goals.



Priority Recommended Actions	
Actions	
4.S	Update the plan and review process for development projects to state that the City arborist must verify that tree planting plans match the approved plan, verify minimum required distances, and have the authority to reject any trees that do not meet American Standards for Nursery Stock (ANSI Z60.1)
4.I	Include trees in the first stages of community development so the size of planting space available for street trees can accommodate large stature trees.
4.J	Revise City standards so all new development, including new residential home communities, will be designed with parkways that are a minimum of 8' in width between the curb and sidewalk.
2.A	Establish the City Arborist as a full-time permanent staff position.
2.P	Trees planted as part of a City managed project will be inspected and approved by a qualified arborist before planting to ensure trees have good structure, no girdling roots, and are in good health.
5.I	Ensure tree planting programs address the long-term costs to maintain and monitor trees, especially in disadvantaged communities.
2.D	Complete a financing study of the urban forest program that provides analysis for the fiscal impact to implement the UFMP and mechanisms to fund tree management.
5.F	Increase public awareness of the tree preservation ordinance.
5.P	Develop an urban forest advisory committee consisting of City staff, the City arborist, SacramentoTree Foundation, school district representative, and community stakeholders to guide the implementation of the UFMP. Ensure the advisory committee leverages existing urban forest-related volunteer and community engagement efforts to expand the City's community partnerships.
1.A	Update the City's recommended tree species list so all trees are expected to be adapted to anticipated climate conditions. Continue to include new species into the City tree planting list that are drought tolerant, resilient to heat, and promote species diversity.



6.2 Monitoring Plan

One of the most efficient models the City can use to monitor the implementation of the UFMP is the Vibrant Cities Lab Community Assessment and Goal-Setting Tool (Vibrant Cities Lab n.d.). The tool is based on the work of Clark et al. (1997), Kenney et al. (2011), and Leff (2016), and establishes criteria and indicators to measure urban forest sustainability. The tool functions as an assessment with multiple questions that provide different descriptions to define the current state of a specific area of urban forest sustainability. The user is asked to decide what the current state is and what the goal should be. The "low" level scores of -1 reflect actions that have a negative impact. The "optimal" level scores of 4 reflect the best possible standard for the City. The "Total Current Score" reflects the perceived state of how the City is functioning. The "Total Goal Score" reflects where the City wants to be. The "Gap Score" reflects how far off the current state is from the desired goal. A city that has a gap score between 20 to 40 is close to achieving the goals of its urban forest program and is progressing towards a sustainable urban forest. Conversely, a gap score of 40+ indicates that a City needs to enhance the implementation of programs and policies to close the gap.

The results of Rancho Cordova's Assessment are shown in **Table 6-1**.



Table 6-1: Rancho Cordova's Vibrant Cities Lab Community Assessment and Goal Setting Scores

Category	Current Rating		Goal Rating		Gap
Canopy cover	The existing canopy cover for entire municipality is <50% of the desired canopy.	Low (-1)	The existing canopy is >75%-100% of desired – at individual neighborhood level as well as overall municipality.	Optimal (4)	5
Inventory & assessment methodology	Complete or sample-based inventory of publicly owned trees.	Fair (1)	Systematic comprehensive inventory system of entire urban forest – with information tailored to users and supported by mapping in municipality-wide GIS [geographic information system]. Provides for change analysis.	Optimal (4)	3
	No assessment.	Low (-1)	As described for "Better" rating – and all utilized effectively to drive urban forest and green infrastructure policy and practice municipality-wide and at neighborhood or smaller management level.	Optimal (4)	5
Publicly owned trees	Complete tree inventory that includes detailed tree condition ratings.	Good (2)	Complete GIS tree inventory that includes detailed tree condition and risk ratings.	Optimal (4)	2

Category	Current Rating		Goal Rating		Gap
Publicly owned natural areas	No information	Low (-1)	Management plan focused on sustaining and, where possible, improving overall ecological structure and function while facilitating appropriate public use. Plan should consider impacts on contiguous natural areas [open space corridors] outside the community's borders.	Optimal (4)	5
Private property trees	No information	Low (-1)	Bottom-up sample-based assessment, as well as detailed urban tree canopy analysis of entire urban forest, including private property, integrated into municipality-wide [multi-agency] GIS system. LIDAR and hyper-spectral imaging most helpful.	Optimal (4)	5
Relative performance index by species	No information	Low (-1)	All six most common species have higher RPI scores than the average of all species in community. (>1.)	Optimal (4)	5
Use of native vegetation	Voluntary use of native species on publicly and privately owned lands; invasive species are recognized.	Fair (1)	Use of native species is encouraged on a project-appropriate basis in all areas; invasive species are recognized and discouraged on public and private lands.	Good (2)	1
Align municipal departments	Municipal departments/ agencies recognize potential conflicts and reach out to urban forest managers on an ad hoc basis – and vice versa.	Fair (1)	Municipal policy implemented by formal interdepartmental/ interagency working teams on all municipal projects.	Optimal (4)	4
Engage residents in planning and implementation	Some neighborhood groups engaged across the community but no minimal outreach to ensure underserved neighborhoods participate effectively.	Fair (1)	Proactive outreach and coordination efforts by municipality and nongovernmental organization partners resulting in widespread citizen involvement and structured engagement among diverse neighborhood groups.	Optimal (4)	3

Category	Current Rating		Goal Rating		Gap
Environmental equity	Planting and outreach include attention to low canopy neighborhoods or areas.	Fair (1)	Equitable planting and outreach at the neighborhood level is guided by strong resident involvement in low canopy/high need areas. Residents participate actively in identifying needs for their neighborhoods, planning, implementation, and monitoring.	Optimal (4)	3
Trees acknowledged as vital community resource	Trees generally recognized as important and beneficial.	Fair (1)	Urban forest recognized as vital to the community's environmental, social, and economic well-being.	Optimal (4)	3
Engage large private landowners and institutions	Large private landholders are generally uninformed about urban forest issues and opportunities.	Low (-1)	Tree management plans developed with input from community, and public access to the property's forest resource.	Optimal (4)	5
All utilities work with municipality, employ best management practices	Utilities employ BMPs, recognize potential municipal conflicts, and reach out to urban forest managers on an ad hoc basis and vice versa.	Good (2)	Utilities are included in informal municipal teams that communicate regularly and collaborate on a project-specific basis.	Better (3)	1
Green industry embraces goals, high standards	Little or no cooperation among segments of green industry or awareness of municipality-wide urban forest goals and objectives.	Low (-1)	Shared vision and goals and extensive committed partnerships in place. Solid adherence to high professional standards and commitment to credentialing and continuing education.	Optimal (4)	5
Develop urban forest master plan	No urban forest master plan	Low (-1)	New or recent urban forest and green infrastructure management plan which targets public and private tree planting and protection based on assessment of anticipated benefits, and ensures these benefits are distributed equitably among neighborhoods.	Optimal (4)	5
Cooperative planning with other municipalities	Municipalities have no interaction with each other or the broader region. No regional planning or coordination on urban forestry.	Low (-1)	Some urban forest planning and cooperation across municipalities and regional agencies.	Good (2)	3

Category	Current Rating		Goal Rating		Gap
Forestry plan integrated into other municipal plans	Urban forestry plan mentions how it could meet other municipal objectives or inform other planning efforts.	Low (-1)	All agencies whose goals are served by urban forestry practices, participate in creation of forestry plan, and commit to designated roles and responsibilities.	Optimal (4)	3
Urban forestry program capacity	Team has capacity in terms of trained staff and equipment to achieve many of the goals of the urban forest master plan.	Good (2)	Team has no [capacity issues] to achieve all goals of the urban forest master plan, to maintain the resource over time, and adapt management as circumstances change.	Optimal (4)	2
Municipality-wide urban forestry funding	Funding sufficient for some proactive management based on urban forest management plan.	Good (2)	Sustained, long-term funding from multiple municipal, regional and/or state agencies, along with private sources to implement a comprehensive urban forest master plan and provide for maintenance and adaptive management as circumstances change.	Optimal (4)	2
Growing site suitability	Appropriate tree species are considered in site selection	Fair (1)	All trees planted in sites with adequate soil quality and quantity, and with sufficient growing space and overall site conditions to achieve their genetic potential and thus provide maximum ecosystem services. Where growing conditions are poor, guidance provided on how to improve soil volume, quality, and other factors.	Optimal (4)	3
Tree establishment and maintenance	Limited planning and post-planting care. Planting takes place on plan-identified sites. None or only fragmentary planting and maintenance protocols.	Low (1)	Comprehensive tree establishment plan provides concrete guidance on most of the following criteria: site selection, size, age class, diversity of species, native plant choice; planting protocols [e.g., minimum soil volumes, soil conditions]; young tree care, including region appropriate irrigation requirements. Includes provisions and funding for maintenance.	Optimal (4)	3

Category	Current Rating		Goal Rating		Gap
Management of publicly owned natural areas	Only reactive management to facilitate public use, e.g., hazard abatement, trail maintenance.	Fair (1)	Management plan in place for each publicly owned natural area to facilitate appropriate public use.	Optimal (4)	3
Policies that foster good urban forestry on private lands	Policies in place to protect public trees and employ industry best management practices, but rare or inconsistent enforcement.	Fair (1)	All relevant municipal policies require or incentivize adherence by private owners to standards incorporated in the plan. Incentives and sanctions applied when appropriate.	Optimal (4)	3
Tree protection policy and enforcement	Policies in place to protect public trees and employ industry best management practices, but rare or inconsistent enforcement.	Fair (1)	Integrated municipality-wide policies and practices to protect public and private trees, consistently enforced and with penalties sufficient to deter violations.	Optimal (4)	3
Monitoring	Monitoring on a regular basis with rotating schedule for each area. Monitors are professionals or volunteers trained to collect specific data required by municipality. Multi-year data available for trend analyses.	Good (2)	Monitoring adheres to the standards and protocols established by the Urban Tree Growth and Longevity network.	Optimal (4)	2
Tree risk management	Citizens and City staff report tree safety issues to the forestry department or manager (e.g., 3-1-1 system, online form). System tracks the time between damage report and mitigation action.	Fair (1)	Includes “better” but with TRAQ-qualified contractors on City projects. Educate tree care companies and public about importance of TRAQ qualifications.	Optimal (4)	3
Urban wood and green waste utilization	While most green waste does not go to landfill, uses are limited to chips or mulch.	Fair (1)	The majority of green waste is reused or recycled for energy, products, and other purposes beyond chips or mulch.	Good (2)	1

Total Current = 11
Total Goal = 105
Score Gap = 94

RECOMMENDED TREE SPECIES LIST

Botanical name	Common name	Evergreen or Deciduous	Mature height	Mature width	Growth Rate	Water needs	Minimum distance from hardscape (in feet)	Minimum distance from building foundation	Maintenance Requirements	Comments
*# Acacia aneura	Mulga	E	15-20′	15-20′	F	M,L	5	10′	L	tolerates clay soil, yellow flowers in spring
Acacia stenophylla	Shoestring acacia	E	20-30′	10-20′	F	M,L	5	10′	L	rounded, weeping canopy, fragrant yellow flowers, drought tolerant
# Acer buergerianum	Trident maple	D	30-40′	20-30′	M	M	6	10′	M,L	rounded canopy turns red in fall
# Acer campestre	Hedge maple	D	30-40′	25-35	M	M,L	6	10′	L	rounded canopy turns yellow to red in fall
# Acer capillipes	Red snakebark maple	D	30-35′	30-35′	M	M	6	10′	M,L	Interesting striated bark, tolerates shade.
# Acer truncatum	Shantung maple	D	25-30′	20-30′	M	L	6	10′	L	develops a broad, oval crown, yellow flowers in spring, and various fall color . Good parking lot shade
*# Arbutus ‘Marina’	Marina strawberry tree	E	20-25′	25′	M	M,L	6	10′	M,L	slow growing rounded tree with whitish-pink flowers followed by ½” round fruits which are edible but bland. Trunk & branches are reddish brown with thin peeling strips
Calocedrus decurrens	Incense cedar	E	75-80′	10-15′	M	M,L	8	15′	L	pyramidal form, tolerates heat, poor soils, and drought
# Carpinus betulus ‘Fastigiata’	Columnar hornbeam	D	40′	20′	M	M	6	15′	L	develops a dense, upright form
*trees suitable for planting under high voltage wires										
# trees suitable for planting strips										
Water Needs: H-High, M-Moderate, L-Low										
Maintenance Needs-H-High, M-Moderate, L-Low										
Growth Rate: F-Fast, M-Moderate, S-Slow										

Botanical name	Common name	Evergreen or Deciduous	Mature height	Mature width	Growth Rate	Water needs	Minimum distance from hardscape (in feet)	Minimum distance from building foundation	Maintenance Requirements	Comments
Carya illinoensis	Pecan	D	70-100′	70′	M	M	8	15′	L	Spreading tree requires ample growing space.
Catalpa speciosa	Northern catalpa	D	40-60′	20-40′	M	M	8	15′	M	White flowers in spring, followed by large 3-6” long seed pods.
Cedrus atlantica	Atlas cedar	E	60′	35-50′	M	M	8	20′	L	pyramidal form, bluish green needles, drought tolerant when established
Cedrus deodara	Deodar cedar	E	75-80′	20-40′	M	L	8	20′	L	develops a loose pyramidal shape with a nodding top. Fairly drought tolerant
Celtis australis	European hackberry	D	50-60′	40-50	M	M,L	8	15′	M,L	develops an oval form and is fairly drought tolerant
Celtis reticulata	Netleaf hackberry	D	25-30′	25-30′	M	L	8	15′	M,L	forms a rounded crown; small red berries
*# Cercis canadensis	Eastern redbud	D	20-25′	25′	M	M	6	10′	M,L	pink spring flowers along stems followed by 2-4” long flat seed pods
*# Cercis occidentalis	Western redbud	D	10-20′	10-20′	M	M,L	6	10′	M,L	CA native, usually multi-stemmed and shrub-like
*# Chionanthus retusus	Chinese fringe tree	D	20-25′	15′	M	M	6	6′	L	white blossoms in spring
Chilopsis linearis	desert willow	D	20-40′	20-40/	M	L	6	6′	L	small desert accent tree
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Botanical name	Common name	Evergreen or Deciduous	Mature height	Mature width	Growth Rate	Water needs	Minimum distance from hardscape (in feet)	Minimum distance from building foundation	Maintenance Requirements	Comments
*# Chitalpa x tashkentensis	Chitalpa	D	20-25′	30′	M	M,L	6	10′	M,L	lavender to pink trumpet shaped flowers in spring, smooth bark cracks & fissures with age, generally requires structure pruning to develop strong trunk & structure. Cross between catalpa and chilopsis.
Cinnamomun camphora	Camphor tree	E	50′	50-60′	M	M	10	20	L	needs plenty of room as roots are competitive and may heave paving
*Citrus spp.	Lemon, lime, orange	E	25′	20′	M	M	6	10′	H,M	Citrus trees need good drainage. Some lemon & lime trees have thorns.
Cladrastis kentukea	American Yellow wood	D	30-50′	30-50′	M	M	8	20′	L	develops a broad, oval crown, pendulous clusters of white flowers in spring
Corylus colurna	Turkish hazel	D	40-50′	30′	M	M	8	15′	L	corky bark, prefers moist well-drained soil, tolerates moderate drought when established
Corymbia papuana	ghost gum	E	30-50′	20-35′	F	L	8	15′	L	blooms in summer, drought tolerant
*Crataegus phaenopyrum	Washington hawthorn	D	20-25′	20-25′	M	M,L	5	6′	L	white spring blossoms, thorns on branches, bright red berries in winter
*Diospiros kaki	Japanese Persimmon	D	20-30′	20-25′	M	M	6	10′	M	Needs well-drained soil; Different varieties available; edible fruit.
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*# Eriobotria deflexa	Bronze loquat	E	25′	15-25′	M	M	6	8′	L	reddish bronze new foliage, pink flowers in spring, rarely sets fruit
Erythrina crista-galli	Cockspur coral tree	D	20-30′	15-20′	M	M,L	6	10′	M,L	rounded umbrella shape, red flowers followed by 3" long pods; has thorns, seeds are poisonous
Eucalyptus nicholii	Peppermint gum	E	50-60′	20-40′	F	M,L	8	15	L	drought tolerant
Eucalyptus robusta	Swamp mahogany	E	60-70′	30-75′	F	Any	8	20′	L	drought tolerant
Geijera parvifolia	Australian willow	E	35	20	M	L	6	15′	L	non-invasive roots
Ginkgo biloba 'Autumn Gold'	Autumn Gold Ginkgo	D	50′	25-35′	S	M,L	8	15′	M,L	fruitless variety, slow growing . Good commercial frontage tree.
Gymnocladus dioicus 'Espresso'	Espresso Kentucky coffee tree	D	60-80′	40-45′	M	M	10	20′	L	seedless variety
Hesperocyparis arizonica	Arizona cypress	E	40′	20′	M	M,L	8	15′	L	pyramidal form, dark brown bark peels in thin curling shreds, exposing bright red layer beneath
Hesperocyparis glabra	Smooth Arizona cypress	E	40′	20′	M	M,L	8	15′	L	bluish to gray-green foliage, drought tolerant
Juglans hindsii	Northern CA black walnut	D	30-60′	30-60′	M	M,L	8	15′	L	Northern CA native, susceptible to mistletoe; produces a 2" edible nut.
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Juglans regia	English walnut	D	60-100′	50-60′	M	M,L	8	15′	M,L	Susceptible to mistletoe; produces a 2″ edible nut.
# Koelreuteria bipinnata	Chinese flame tree	D	30-40′	15-30′	M	L	6	15′	M,L	rounded umbrella shape, yellow flowers in summer followed by rose colored seed capsules in fall
# Koelreuteria paniculata	Goldenrain tree	D	30-40′	25-40′	M	L	6	15′	M,L	rounded umbrella shape, yellow flowers in summer followed by yellow then brown seed capsules; Drought tolerant . Good parking lot tree
# Laurus ‘Saratoga’	Saratoga laurel	E	40′	15-30′	M	M,L	6	15′	M,L	rounded leaves are aromatic and can be used in cooking
# Maackia amurensis	Amur maackia	D	25-35	15-25′	M	M	6	10′	L	Creamy white flowers in summer
Maclura pomifera ‘White Shield’	White Shield Osage orange	D	30-50′	30-35′	M	Any	6	15′	L	thornless & fruitless cultivar, tolerates poor soil
*# Magnolia grandiflora ‘St. Mary’	St. Mary Magnolia	E	20′	10′	M	M	6	10′	L	Smaller cultivar of the southern magnolia, has white fragrant flowers in spring & summer.
# Magnolia hybrid ‘Galaxy’	Galaxy magnolia	D	30′	15-20′	M	M	6	10′	L	single trunk, more columnar than saucer magnolia, reddish purple flowers appear in spring before leafing out
*# Magnolia x soulangiana	Saucer magnolia	D	20-25′	20-25′	M	M	6	10′	L	often multi-trunked, flowers in early spring before leafing out with large white, pink , burgundy or purple flowers; Intolerant of drought
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*Malus floribunda	Japanese flowering crabapple	D	25′	20-30′	M	M	5	10′	M,L	pink or white flowers in spring, several varieties available
# Nyssa sylvatica	Tupelo	D	30-45′	20-30′	M	M	6	15′	L	pyramidal when young, red fall color, grows well in any soil
# Olea europaea ‘Swan Hill’	Swan Hill olive	E	25-30′	25-30′	M	M,L	6	15	L	fruitless variety ; drought tolerant
# Parkinsonia x ‘Desert Museum’	Desert Museum palo verde	D	20-40′	20-40′	M	L	6	15	L	Semi-deciduous, thornless hybrid has distinctive green trunk & branches, yellow flowers in the spring, strong upright branching structure. Small leaves cast light shade. Drought tolerant.
# Parrotia persica	Persian ironwood	D	15-30	15-30′	M	M,L	6	10′	M,L	Drought tolerant, may need training to be a single stem tree.
# Pistacia chinensis	Chinese pistache	D	30-40′	30-40′	M	M,L	6	15′	M,L	full round canopy, leaves turn brilliant yellow, orange, & red in fall; drought tolerant. Good parking lot shade tree.
Platanus x hispanica ‘Bloodgood’	Bloodgood London plane	D	50-70′	50-70′	F	M	10	20′	L	tough, durable tree native to Spain. Good commercial frontage tree.
Platanus racemosa	California sycamore	D	50-80′	20-50′	F	M,L	10	15′	L	native to riparian streams of California foothills and coast. Good commercial frontage tree.
#* Prosopis glandulosa x ‘Maverick’	Thornless Honey mesquite	D	30′	20-30′	M	L	8	10′	L	Thornless cultivar reaches 30’ tall, cold hardy, drought tolerant and adaptable to a range of soil types
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Prunus avium	Edible cherry	D	40′	30′	M	M	8	15	H,M	Pink or white flowers in spring.; Edible fruit.
*Prunus dulcis	Almond	D	20-30′	20-30′	M	M,L	6	10′	M	Whitish pink flowers in spring, edible nut.
#*Prunus mume	Japanese flowering apricot	D	30′	30′	M	M	6	10′	M	Fragrant pink flowers in spring, small .5″ fruit
Prunus serrulata	Japanese flowering cherry	D	15-25′	15-25′	M	M	6	10′	M	Fragrant pink flowers in spring, small .5″ fruit . Needs good drainage.
Prunus x 'Yedoensis'	Yoshino flowering cherry	D	35-40′	30-40′	M	M	6	10′	M	Fragrant white flowers in spring, small .5″ fruit. Needs good drainage.
*Punica granatum	Pomegranate	D	20′	15′	M	L	6	10′	M	Orange, pink or red flowers in spring or summer, followed by edible fruit.
Pterocarya stenoptera	Chinese wingnut	D	50-80	30-50′	M	Any	10	20′	L	broad canopy, roots can be invasive, thrives in poor, compacted soil; drought tolerant
Quercus buckleyi	Texas red oak	D	40-50′	30-50′	M	M,L	8	15′	L	drought tolerant . Good commercial frontage tree.
Quercus canbyi	Canby's oak	E	30-50′	30-40′	M	M,L	8	15′	L	deep rooted and heat tolerant, evergreen to semi-evergreen. Good commercial frontage tree.
Quercus castaneifolia	Chestnut leaf oak	D	60-85′	35-70′	M	L	8	15′	L	Good commercial frontage tree.

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Quercus coccinea	Scarlet oak	D	60-70′	50′	M	M	8	15′	L	red fall color, usually retains brown dead leaves through the winter. Good commercial frontage tree.
Quercus douglasii	Blue oak	D	30-50′	40-50′	M	L	8	15′	L	native to CA central valley & foothills, broad rounded canopy, tolerates heat and seasonal drought; not a lawn tree. Good commercial frontage tree.
Quercus frainetto 'Forest Green'	Forest Green Hungarian oak	D	50′	50′	M	M,L	8	15′	L	Good commercial frontage tree.
Quercus lobata	Valley oak	D	50-70′	50′	M	L	8	15	L	native to CA valleys, Sierra Nevada foothills, and inland coast ranges, broad rounded canopy, tolerates heat & seasonal drought . Good commercial frontage tree.
Quercus macrocarpa	Bur oak	D	60-70′	30-50′	M	M,L	8	15	L	tolerates moderate drought when established. Good commercial frontage tree.
Quercus x morehus	Oracle oak	semi-deciduous	20-50′	20-30′	M	M,L	10′	20′	L	Naturally occuring cross between two CA native oaks, the interior live & CA black oak, characteristics are variable. Good commercial frontage tree.
Quercus muehlenbergii	Chinquapin oak	D	40-50′	50′	M	M	8	15′	L	needs good drainage . Good commercial frontage tree.

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#Quercus myrsinifolia	Japanese live oak	E	20-40′	15-30′	M	M,L	8	15′	L	Dense, broad canopy
Quercus phellos	Willow oak	D	50-90′	40-50′	M	M,L	8	15′	L	yellow to red fall color. Good commercial frontage tree.
Quercus rubra	Red oak	D	60-70′	50-70′	M	M	8	15′	L	deep orange to red fall color
Quercus shumardii	Shumard oak	D	60-70′	40-50′	M	M	8	15′	L	yellow, orange or red fall color. Good commercial frontage tree.
Quercus suber	Cork oak	E	50-60′	50-70′	M	M,L	8	20′	L	tolerates many soils but needs good drainage; tolerates drought when established. Good commercial frontage tree.
Quercus virginana	Southern live oak	E	40-80′	40-80′	M	M	8	15	L	Native to eastern U.S. Adaptible to many soil types. Good commercial frontage tree.
Quercus wislizeni	Interior live oak	E	50-75′	40-80′	M	M, L	8	15′	L	native to central CA foothills. Good commercial frontage tree.
*Rhus lancea	African sumac	E	20-30′	20-30′	M	M,L	6	12′	L	dense spreading form, often multi-trunked, drought tolerant
Schinus molle	Pepper tree	E	30-40′	25-40′	M	M,L	8	15′	M,L	native to south America and naturalized in CA, often called California pepper tree, oval weeping shape, tolerates heat & drought
#Sophora japonica ‘Regent’	Regent Japanese pagoda tree	D	40-50′	30-40′	M	M,L	8	15′	L	rounded canopy

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# Ulmus propinqua	Emerald Sunshine elm	D	35′	25′	M	M,L	6	15′	L	highly resistant to pests & diseases. Good commercial frontage tree.
Ulmus ‘Frontier’	Frontier elm	D	40′	20-30′	F, M	M	8	15	L	Tolerates urban conditions, drought, poor soil and compaction. Good disease resistance
Ulmus ‘Triumph’	Triumph elm	D	50-50′	40-50′	F, M	M	8	15	L	Very good resistance to pests & disease
Zelkova serrata	Sawleaf zelkova	D	60′	50-60′	M	M,L	8	20′	L	forms a broad, arching canopy . Good commercial frontage tree.
#Zelkova serrata ‘City Sprite’	City Sprite zelkova	D	30′	20-25′	M	M, L	8	15′	L	Semi-dwarf variety, oval to round shape. Good commercial frontage tree.
Zelkova serrata ‘Musashino’	Columnar zelkova	D	40-45′	10-15′	M	M,L	8	15′	L	narrow upright form
Zelkova serrata ‘Village Green’	Village Green zelkova	D	50-60′	45-50′	M	M, L	8	15′	L	upright vase shape, red fall color . Good commercial frontage tree.
*Zizyphus jujube	Jujube	D	20-30′	15-30′	M	M, L	6	10′	M	Small edible fruits, has thorns.

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GLOSSARY

Abiotic – a non-living factor typically used to describe a cause of a disorder in trees, such as drought, flooding, limited growing space, and others.

ANSI (American National Standards Institute) – a private non-profit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States.

Arborist – an individual who is trained in the art and science of planting, caring for, and maintaining individual trees.

Canopy cover – the area of land covered by a tree's leaves and branches when viewed from above.

Diameter at standard height (DSH) – a measurement, usually in inches, of a tree's diameter taken at 4.5 feet above the ground. This measurement is also commonly referred to diameter at breast height (DBH).

Functional value – the annual value of the environmental benefits that the trees provide.

Hardscape – hard materials in the build environment that are incorporated into the landscape. Some examples include roads, parking lots, driveways, sideways, and compressed soils.

International Society of Arboriculture (ISA) – serves the tree care industry as a membership association and a credentialing organization that promotes the professional practice of arboriculture. ISA also works to educate the public about the benefits of trees and the need for proper tree care.

Immature tree – any tree with a diameter at standard height (DSH) between 0 inches and 6 inches.

i-Tree Eco (application) – a computer-based program that uses tree measurements and other data to numerically estimate, both in economic and environmental terms, the quantity of ecosystem services and the associated value that a given set of trees provide to a given area.

Impervious surface – typically a man-made structure such as roads, sidewalks, parking lots, and buildings that are covered with covered with a material that does not allow water to penetrate it, such as concrete, asphalt, metal, brick or stone. Highly compacted urban soils can also serve as impervious surfaces. See also: hardscape.

Mature tree – any tree with a diameter at standard height (DSH) of 24 inches or more.

Middle-aged tree – any tree with a diameter at standard height (DSH) between 19 inches and 24 inches.

Pruning – the selective removal of certain parts of a plant such as branches, buds, or roots. Pruning typically involves removing diseased, damaged, dead, non-productive, structurally unsound, or unwanted tissue from trees or other plants.

Pruning cycle – the time scheduled between pruning events. In a municipal setting, this cycle is typically between 5 to 7 years, and depends on the species of tree.

Photosynthesis – process used by plants and other organisms to convert light energy into food for survival

Right tree, right place – an industry-accepted approach for making tree and landscaping selections to ensure that the vegetation planted is appropriate for a specific purpose or location.

Senescent – the condition or process of deterioration with age.

Stocking rate – the rate at which cities plant trees based on the total number of vacant and planted available space.

Structural value – the cost associated with replacing all trees with the same species, size, and health condition.

Tree – woody perennial usually having one dominant trunk and a mature height greater than 16 feet.

Tree inventory – the systematic gathering of tree attribute data in a given area. Inventories may collect attributes including height, diameter at standard height (DSH), condition, species, pruning needs, location, and others.

Tree species diversity – the number of different tree species as well as the number of individuals of a given species represented in population.

Urban Forest - all the trees, both publicly managed by a city, and privately owned by residents and business owners, in an urban environment.

Urban forester – an individual who specializes in the care and management of tree populations in urban settings for the purpose of improving the urban environment.

Urban forest master plan (UFMP) – a roadmap that creates a shared vision for the future of a tree canopy in a given area. The plan guides stakeholders to effectively manage and provide for maximum long-term benefits of the urban forest to the community.

Urban heat island –urbanized areas experience higher temperatures relative to surrounding areas due to structures, roads, and other infrastructure in the urban landscape that absorbs and re-emits the sun's heat.

Young tree – any tree with a diameter at standard height (DSH) of 7 inches to 18 inches.



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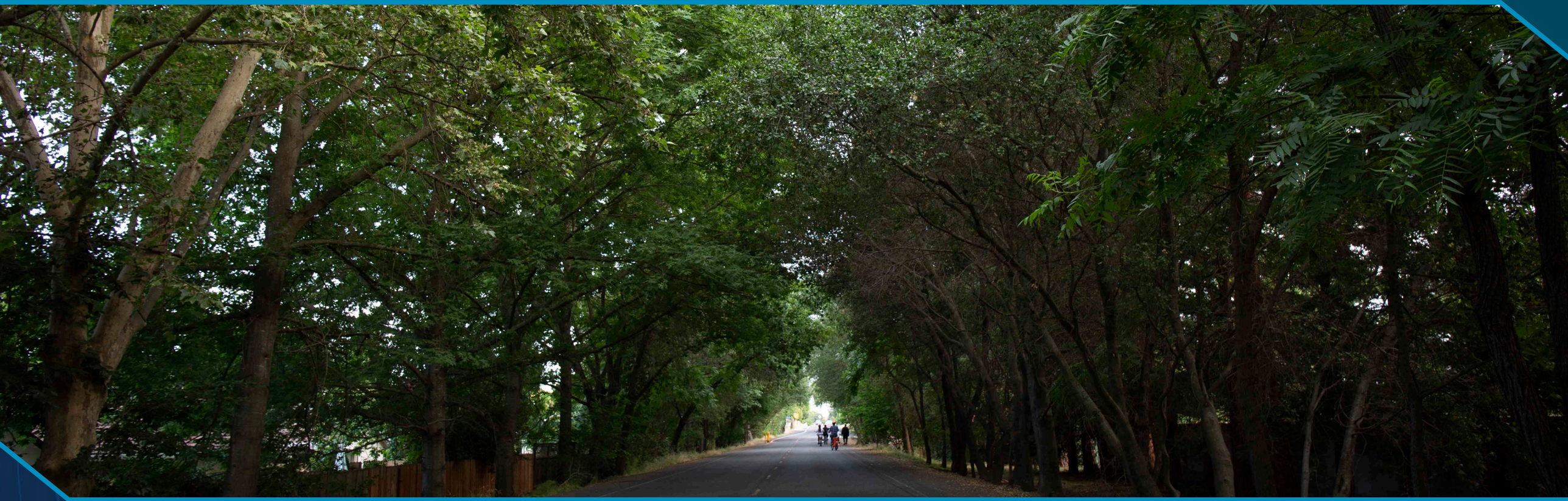
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RANCHO CORDOVA
CALIFORNIA

URBAN FOREST MASTER PLAN

Prepared by
DUDEK
FEBRUARY 2022
Technical Review by
Urban Forest Innovations



Rancho Cordova Urban Forest Master Plan

Rancho Cordova, CA

PRESENTED BY RYAN ALLEN

MARCH 21, 2022

WHO WE ARE

DUDEK

Founded in 1980

700+ Employees

Employee-Owned

We can take any project from concept design through implementation.



Dudek offers comprehensive in-house technical expertise

Presentation Outline

- Developing the UFMP
- Vision and Guiding Principles
- Key Findings
- Next Steps

What is a UFMP?

- Long term vision for the maintenance and development of the urban forest.
- Analysis and review of all management practices, funding, ordinances, policies.
- Strategic plan: goals, objectives, and recommended actions.
- Implementation with a timeframe for completion.
- Living document to be reviewed every 2-3 years to assess priorities against current conditions.



Developing the UFMP

CAL FIRE GRANT AWARD

- Grant award of $369,500
  - 7/1/19 – 3/31/22

- Plant 750 trees with a focus on low canopy neighborhoods.

- 50% time of Sacramento Tree Foundation staff member

- Sacramento Regional Conservation Corps for tree planting and public education.

- Completion of Urban Forest Master Plan

Vision Statement



Vision Statement

Working in partnership as community members, stakeholders and the City, we will improve public health, access to nature, and environmental equity for all of Rancho Cordova through sustainable management of the urban forest.

Guiding Principles



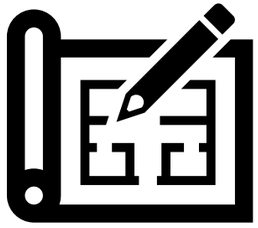
ACCESS AND EQUITY

All communities have equal access to the benefits of trees.



HEALTHY AND ACTIVE COMMUNITIES

Trees create a healthy environment for active transportation and recreation, with vibrant and diverse outdoor space and habitat for wildlife.



A CITY PLANNED FOR TREES

Tree species are selected for planting in the development of the urban landscape to grow to maturity without interfering with adjacent infrastructure and contribute to canopy cover goals.

Guiding Principles



PROVIDE RESOURCES FOR SUSTAINABLE MANAGEMENT

The City funds the urban forest program at a level to meet the goals of the UFMP.



PARTNERSHIPS AND ENGAGEMENT

Priorities of the urban forest program are developed with and achieved by collaborating with community members and external stakeholders.



RESILIENCY AND CLIMATE CHANGE

The City will develop an urban forest to thrive against current and future environmental threats.

Strengths of Urban Forest Program

- Strong partnerships with SacTree, SMUD, Park District, schools, local businesses and community groups like Volunteers in Neighborhood Services brings resources and capacity building.

- A focus on community member engagement and participation in achieving urban forestry goals.

- Funding levels support 5-year pruning cycle, community engagement, and tree planting activities.

- Desire to have a world class urban forest.

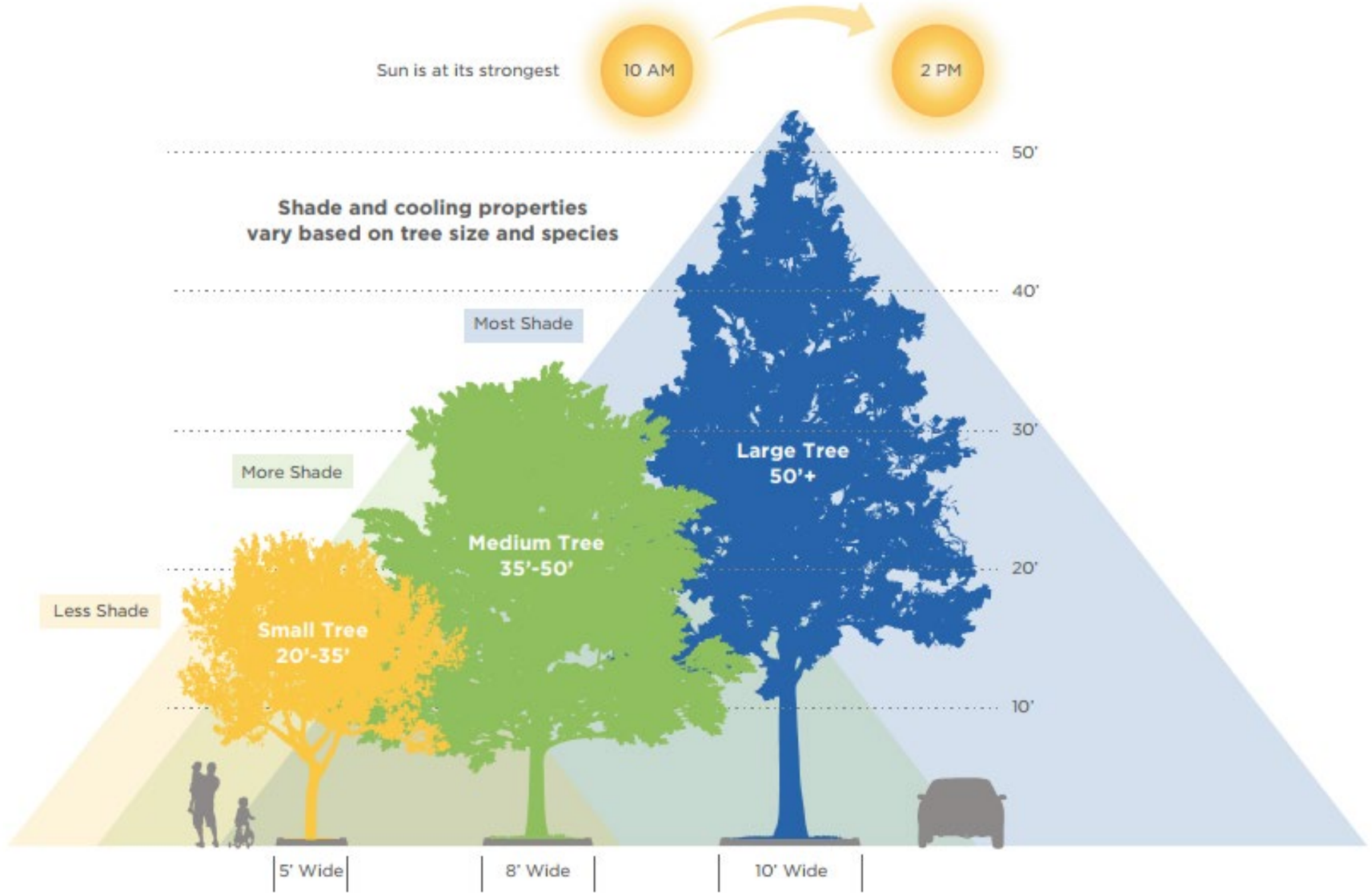


Challenge – Future Growth in Rancho Cordova





Challenge– Future Growth in Rancho Cordova



Challenge– Future Growth in Rancho Cordova



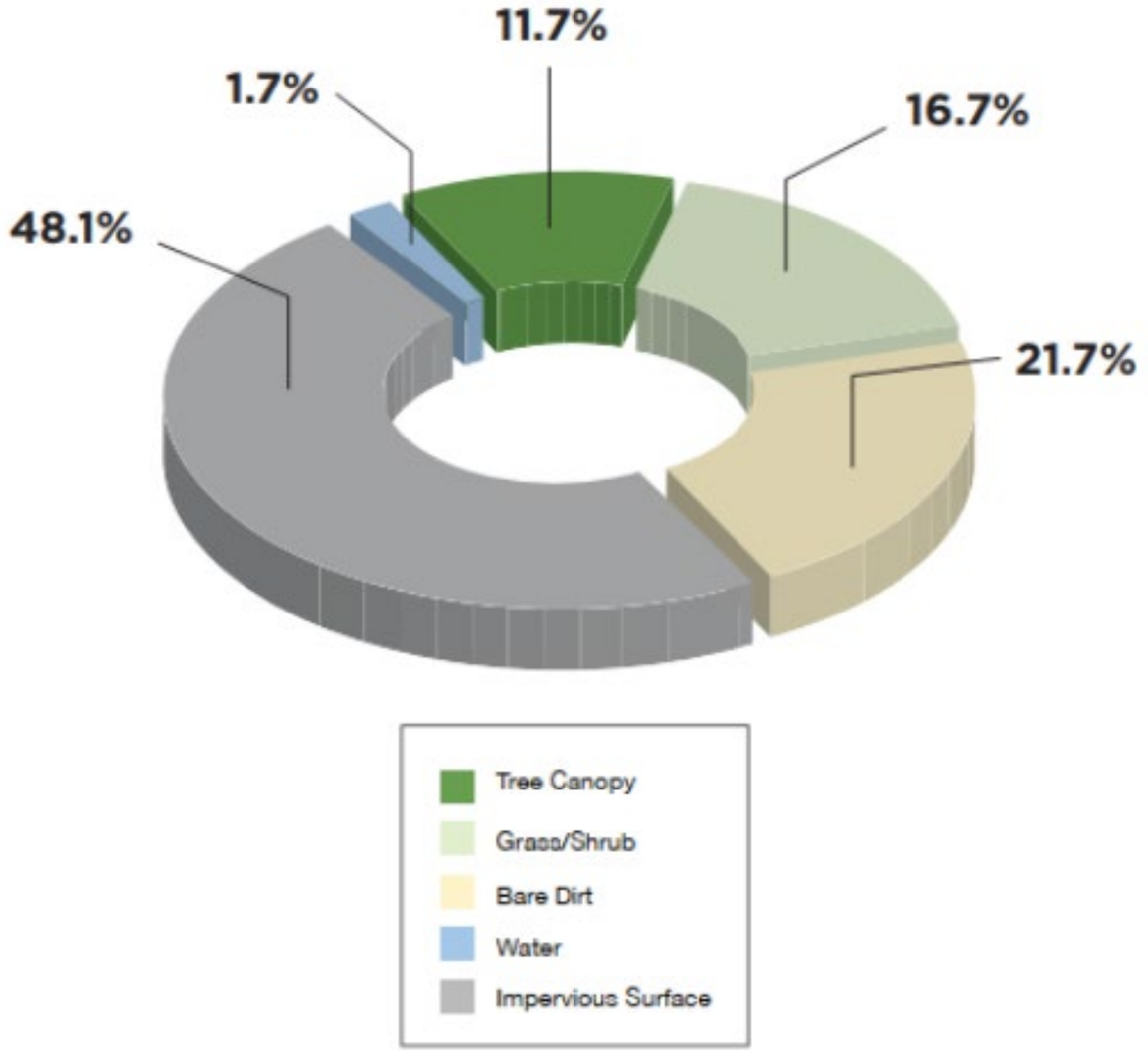
Considerations – Future Growth in Rancho Cordova

- Significant future development.
- Follow ‘right tree, right place’ principles.
- Ensure City arborist review of tree species and planting locations in the beginning of site review process.
- Increasing size of tree and canopy cover, increases return on investment.

Challenge – Developed Rancho Cordova

TO ACHIEVE 20% CANOPY COVER

- City-wide 6%
  - Developed area 12%
  - Undeveloped area 1.4%
- Add 18,604 50ft canopy spread trees.
- Equivalent to planting 651 large stature trees per year for 30 years.



Opportunity – Developed Rancho Cordova

PRIVATE PROPERTY



PARKING LOTS



STORMWATER BASINS



Opportunity – Developed Rancho Cordova

PARKS



SCHOOLS



OPEN SPACE



Recommended Actions to Prioritize

Priority 1

Development standards for new residential communities:

1. Focus on ‘right tree, right place’.
2. Increase enforcement of 50% shading of parking lot requirement.

Priority 2

Build capacity:

1. Fund the city arborist position to be full-time.
2. Ensure urban forest program funding supports actions of the UFMP.

Priority 3

Urban Forest Sustainability:

1. Ensure the City inventory meets species diversity targets.
2. Update the City tree species list to be adapted to expected climate change conditions.

Actions to Prioritize

Priority 4

Increase Canopy Cover:

1. Prioritize tree planting activities towards low canopy and low CalEnviroscreen scores.
2. Utilize parks and stormwater basins to plant large stature trees.

Priority 5

Community Engagement:

1. Increase funding for the Sacramento Tree Foundation to further tree planting on private property.
2. Develop an urban forest advisory committee.

Next Steps



Adopt UFMP

- Adopt resolution approving Urban Forest Master Plan.



Prioritize Objectives

- Build consensus on the highest priority issues to tackle that will deliver the most impact.



Assign Roles

- Ensure accountability for meeting objectives by assigning specific tasks to individual staff members or departments.


THANK YOU
FOR YOUR TIME

MEMORANDUM

ITEM 12.2.

DATE: March 21, 2022

TO: Honorable Mayor and Council Members

FROM: Stacy Leitner, City Clerk

SUBJECT: **DISCUSSION REGARDING MOBILE HOME PARK SUBCOMMITTEE MEMBERS**

RECOMMENDATION

Reappoint subcommittee members.

RESULT OF RECOMMENDED ACTION

The City Council will reappoint two council members to the Mobile Home Park Subcommittee.

BACKGROUND

Throughout 2021 the City held multiple discussions regarding space rents in mobile home parks. On January 25, 2022 the City Council established a subcommittee to hold further discussions between mobile home park owners and mobile home park residents regarding a space rent stabilization ordinance.

This discussion item was requested at the March 7 City Council meeting to reappoint new City Council subcommittee members. The current subcommittee members are Mayor Donald Terry and Councilmember David Sander.

FISCAL IMPACT AND FUNDING SOURCE

There is no fiscal impact for this item.

ATTACHMENT(S)

None