



VALLEJO PLANNING COMMISSION REGULAR MEETING 7:00 PM

OCTOBER 6, 2025

COMMISSIONERS

Eric Blind, (Chair)
Anthony Taylor, (Vice-Chair)
Donald Douglass
Wanda Madeiros
Tara Beasley-Stansberry
Phillip Balbuena
Chris White

HYBRID MEETING
www.Cityofvallejo.net

**Council Chambers
555 Santa Clara Street
Vallejo, CA 94590**

NOTICE: Members of the Public will be able to participate in-person or remotely via Zoom	City Hall and the Council Chambers will be open to members of the public 30 minutes prior to the start of the meeting.
PUBLIC COMMENT: Members of the Public may provide public comments during the City Council Meeting in person or via ZOOM (https://ZoomRegular.Cityofvallejo.net), or via phone, by dialing (669) 900-6833.	For additional instructions on how to speak remotely during public comment, please visit, www.cityofvallejo.net/publiccomment
VIEW THE MEETING: There are four different ways you can view this public meeting: • In Person • Watch Vallejo local channel 28 • Stream from the City website: www.cityofvallejo.net/Streaming • Join the Zoom webinar: https://ZoomRegular.Cityofvallejo.net	Scan QR code for live captions and translation in Spanish and Tagalog. 
Hybrid Options are available for members of the public to participate. To participate remotely	
<u>Option to Join by Computer</u> From your browser go to https://ZoomRegular.CityofVallejo.net to launch and join the zoom application. Meeting ID: 914 0075 0676# Meeting Password: 131313	<u>Option to Join by Phone</u> Dial (669) 900-6833 Enter Meeting ID: 914 0075 0676# Meeting Password: 131313 Press *9 to digitally raise your hand from the phone. Press *6 to unmute/mute
Any supplemental writing related to an agenda item for an open session of a regular meeting that is distributed to all or a majority of all members of the Commission less than 72 hours before the meeting will be posted concurrently on the City's website at www.cityofvallejo.net/agendas Written material distributed during the meeting, will be available at the meeting if prepared by the City or after the meeting if prepared by someone else. Such materials may be obtained from the Commission Secretary	
	Vallejo City Council Chambers is ADA compliant. Devices for the hearing impaired are available from the Staff Secretary. Requests for disability related modifications or accommodations, aids or services may be made by a person with a disability to the Staff Secretary's office by contacting via email Dalia.Vidor@cityofvallejo.net or via telephone at (707) 648-4326 no less than 72 hours prior to the meeting as required by Section 202 of the Americans with Disabilities Act of 1990 and the federal rules and regulations adopted in implementation thereof

AGENDA

- 1. CALL TO ORDER**
- 2. PLEDGE OF ALLEGIANCE**
- 3. OATH OF OFFICE OF NEWLY APPOINTED COMMISSIONER(S)**
- 4. ROLL CALL**

5. CONSENT CALENDAR AND APPROVAL OF THE AGENDA

[SECTION_TEXT]

Consent Calendar items appear below, with the Secretary's or City Attorney's designation as such. Members of the public wishing to address the Commission on Consent Calendar items are asked to address the Secretary and submit a completed speaker card prior to the approval of the agenda. Such requests shall be granted, and items will be addressed in the order in which they appear in the agenda. After making any changes to the agenda, the agenda shall be approved. All matters are approved under one motion unless requested to be removed for discussion by a commissioner or any member of the public.

A. APPROVAL OF THE AGENDA

B. APPROVAL OF THE MINUTES

Recommendation: By motion, approve July 7, 2025 - regular meeting minutes.

6. REPORT OF THE CITY COUNCIL LIAISON

7. COMMUNITY FORUM

[SECTION_TEXT]

Anyone wishing to address the Commission on any matter for which another opportunity to speak is not provided on the agenda, and which is within the jurisdiction of the Commission to resolve, is requested to submit a completed speaker card to the Secretary. When called upon, each speaker should step to the podium, state his/her name and address for the record. The conduct of the community forum shall follow those as the City Council and shall be limited to a maximum of fifteen (15) minutes, with each speaker limited to three minutes pursuant to Vallejo Municipal Code Section 2.20.300. The Commission may take information but may not take action on any item not on the agenda.

8. PUBLIC HEARING

A. ADOPT A RESOLUTION MAKING FINDING RELATING TO AN ADDENDUM TO THE CERTIFIED ENVIRONMENTAL IMPACT REPORT FOR THE GENERAL PLAN 2040 AND APPROVING A VESTING TENTATIVE MAP (TM23-0003), DEVELOPMENT REVIEW (DVR23-0042), EXCEPTION (EXC24-0001), MINOR USE PERMIT (MUP23-0019), LANDSCAPE REVIEW (LR23-0013) AND DESIGN REVIEW (DR23-0019) FOR THE DEVELOPMENT OF 130 SINGLE-FAMILY RESIDENCES AT 201 ROLLINGWOOD DRIVE (APNS: 0072-170-050 & 0072-050-060)

Project Summary: The project consists of the subdivision of two parcels into 140 parcels including the construction of 130, two-story, single-unit dwellings, 10 new parcels for stormwater detention, biotreatment retention, open

Application Number(s):	space and roadway dedication, and installation of new landscaping improvements, public and private streets, and lighting. DVR23-0042, TM23-0003, MNP23-0019, EXC24-0001
Location:	201 Rollingwood Drive/ APN: 0072-170-050 & -060
Applicant:	KB Home North Bay, LLC
Owner:	Vallejo City Unified School District
General Plan Land Use Designation:	Mix of Housing Types/Medium Density (R-MH)
Zoning District:	Residential Medium Density (RMD)
CEQA:	Pursuant to California Environmental Quality Act (CEQA) Guidelines Sections 15162 (Subsequent EIRs and Negative Declarations) and Section 15164 (Addendum to an EIR or Negative Declaration), the City of Vallejo has prepared an addendum to the previously certified Environmental Impact Report (EIR) related to the previously certified General Plan EIR (State Clearinghouse #2014112035).

9. **WRITTEN COMMUNICATIONS**
10. **REPORT OF THE PRESIDING OFFICER AND MEMBERS OF THE PLANNING COMMISSION**
 - A. **SECRETARY'S REPORT**
 - B. **CITY ATTORNEY'S REPORT**
 - C. **REPORT OF THE CHAIRPERSON AND MEMBERS OF THE COMMISSION**
 - D. **REPORT OF THE ADHOC SUBCOMMITTEES**
11. **OTHER**
12. **ADJOURNMENT**

ADDITIONAL CITY INFORMATION

Members of the public can:

- Like us on Facebook and Instagram ([@cityofvallejo](#))
- Sign up to receive City Communications via e-mail (www.cityofvallejo.net/subscribe)
- Sign up for emergency alerts at: alertsolano.com

I, Dalia Vidor, Staff Secretary do hereby certify that I have caused a true copy of the above notice and agenda to be delivered to

Eric Blind, (Chair)
Anthony Taylor, (Vice-Chair)
Donald Douglass
Wanda Madeiros
Tara Beasley-Stansberry
Phillip Balbuena
Chris White,

at the time and in the manner prescribed by law and that this agenda was posted at City Hall, 555 Santa Clara Street, CA at
6:00 PM, 10/02/2025.

Dated: 10/02/2025

Dalia Vidor

Dalia Vidor, Staff Secretary

**CITY OF VALLEJO PLANNING COMMISSION
REGULAR MEETING MINUTES
COUNCIL CHAMBERS
July 7, 2025**

1. CALL TO ORDER

The meeting was called to order at 7:24 p.m.

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Present: Chair Blind, Vice-Chair Taylor, Commissioners Madeiros, Douglass, Balbuena and Beasley-Stansberry

Absent: Commissioner Standafer

Staff present: Assistant City Attorney Zagaroli and Planning Manager Orozco

4. CONSENT CALENDAR AND APPROVAL OF AGENDA

A. APPROVAL OF THE AGENDA

Action: Vice-Chair Taylo, Second by Commissioner Beasley-Stansberry, and carried unanimously (absent: Standafer) to approve the agenda.

B. APPROVAL OF Minutes

Action: Vice-Chari Taylor, second by Commissioner Beasley-Stansberry, approved the May 5, 2025 – regular meeting minutes with the following vote:

Ayes: Chair Blind, Vice-Chair Taylor, Commissioners Madeiros, Douglass, and Beasley-Stansberry

Noes: None

Abstention: Commissioner Balbuena

Absent: Commissioner Standafer

5. REPORT OF THE CITY COUNCIL LIASION

Council Member Matulac wanted to remind the commission that if they reviewed the meeting video for the missed meeting, they can vote on the meeting minutes, and collaboration between the Planning and Economic Development.

6. COMMUNITY FORUM – Myling

7. PUBLIC HEARING - None

8. WRITTEN COMMUNICATIONS

Two written communications received regarding the Mare Island Specific Plan and the housing element.

9. REGULAR REPORTS

A. SECRETARY'S REPORT

Planning Manager Orozco provided an update on the project meeting memo attached to the secretary report on upcoming projects that will come before the Planning Commission.

Brian Negym, of Mare Island Company, provided a presentation for their annual development review for Calendar Years 2023 and 2024. The commissioners asked questions and Mare Island Company responded.

B. CITY ATTORNEY'S REPORT - NONE

C. REPORT OF THE PRESIDING OFFICER AND MEMBERS OF THE PLANNING COMMISSION

A. COMMISSIONER BALBUENA – Asked question regarding the Broadway housing project and requested a timeline of when individual can start occupying.

B. COMMISSIONER BEASLEY-STANSBERRY – Appreciated the joint meeting with city council and had the opportunity to be on the same page, thanked staff for their efforts and commitment and reminded the public regarding 707 week.

C. CHAIR BLIND – Appreciated the joint meeting with city council.

D. REPORT OF THE SUBCOMMITTEES – None

10. ADJOURNMENT

The meeting was adjourned at 8:13 p.m.

ATTEST:

ERIC BLIND, CHAIR

ATTEST:

Kristin Pollot, AICP
SECRETARY

DRAFT



STAFF REPORT – PLANNING CITY OF VALLEJO PLANNING COMMISSION

DATE: October 6, 2025
TO: Planning Commission
FROM: Robby Thacker, Principal Planner
SUBJECT: **ADOPT A RESOLUTION MAKING FINDING RELATING TO AN ADDENDUM TO THE CERTIFIED ENVIRONMENTAL IMPACT REPORT FOR THE GENERAL PLAN 2040 AND APPROVING A VESTING TENTATIVE MAP (TM23-0003), DEVELOPMENT REVIEW (DVR23-0042), EXCEPTION (EXC24-0001), MINOR USE PERMIT (MUP23-0019), LANDSCAPE REVIEW (LR23-0013) AND DESIGN REVIEW (DR23-0019) FOR THE DEVELOPMENT OF 130 SINGLE-FAMILY RESIDENCES AT 201 ROLLINGWOOD DRIVE (APNS: 0072-170-050 & 0072-050-060)**

PROJECT INFORMATION

Project Summary: The project consists of the subdivision of two parcels into 140 parcels including the construction of 130, two-story, single-unit dwellings, 10 new parcels for stormwater detention, biotreatment retention, open space and roadway dedication, and installation of new landscaping improvements, public and private streets, and lighting.

Application Number(s): DVR23-0042, TM23-0003, MNP23-0019, EXC24-0001
Location: 201 Rollingwood Drive/ APN: 0072-170-050 & -060
Applicant: KB Home North Bay, LLC
Owner: Vallejo City Unified School District
General Plan Land Use Designation: Mix of Housing Types/Medium Density (R-MH)
Zoning District: Residential Medium Density (RMD)
CEQA: Pursuant to California Environmental Quality Act (CEQA) Guidelines Sections 15162 (Subsequent EIRs and Negative Declarations) and Section 15164 (Addendum to an EIR or Negative Declaration), the City of Vallejo has prepared an addendum to the previously certified Environmental Impact Report (EIR) related to the previously certified General Plan EIR (State Clearinghouse #2014112035).

RECOMMENDATION

Staff recommends that the Planning Commission finding relating to an addendum to the certified Environmental Impact Report for the General Plan 2040 and approve Vesting Tentative Map (TM23-0003), Design Review (DR23-0019), Development Review (DVR23-0042), Minor Use Permit (MNP23-0019), Landscape Review (LR23-0013) and Exception (EXC24-0001) based on the findings provided in the attached Resolution and subject to the Conditions of Approval provided as Exhibit A to the resolution.

ATTACHMENTS

1.	Staff Report
2.	Recommended Resolution
3.	Exhibit A - Conditions of Approval

**Subject: ADOPT A RESOLUTION MAKING FINDING RELATING TO AN ADDENDUM TO THE
CERTIFIED ENVIRONMENTAL IMPACT REPORT FOR THE GENERAL PLAN 2040
AND APPROVING A VESTING TENTATIVE MAP (TM23-0003), DEVELOPMENT
REVIEW (DVR23-0042), EXCEPTION (EXC24-0001), MINOR USE PERMIT (MUP23-
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4.	Exhibit B - General Plan 2040 Policies
5.	Exhibit C - Supporting Tables
6.	Exhibit D -Addendum_September 2025
7.	Exhibit E - Project Plans
8.	Arborist Report
9.	DRB24-03 - Resolution

CONTACT

Robby Thacker, Principal Planner, (707) 648-4506

robby.thacker@cityofvallejo.net

**Subject: ADOPT A RESOLUTION MAKING FINDINGS RELATING TO AN ADDENDUM TO THE
CERTIFIED EIR FOR THE GENERAL PLAN 2040 AND APPROVING A VESTING
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BACKGROUND AND DISCUSSION

Background

The project site was formerly developed as a baseball facility, known as John F. Cunningham Park, and has remained vacant since its closure.

On December 3, 2007, the City of Vallejo Planning Commission approved a General Plan Amendment, Zoning Map Amendment, a Vesting Tentative Map and Master Plan/Unit Plan for a 214-unit subdivision and a 4.1-acre neighborhood park on the property. This approval has since expired.

On June 21, 2023, the applicant, KB Home North Bay, LLC ("applicant") submitted a Preliminary Review request pursuant to California Senate Bill (SB) 330, "the Housing Crisis Act of 2019," which was found to be in compliance with the SB330 preliminary review checklist on July 7, 2023.

On October 16, 2023, the applicant submitted an application for a Development Review, Design Review, Landscape Review, Minor Use Permit, Exception and Tentative Map to develop 130 single-family homes on the vacant site off Rollingwood Drive. The project plans were routed to various city departments and outside agencies for their review, and the application was determined to be complete on July 24, 2024.

On December 12, 2024, the Design Review Board (DRB) held a duly public noticed public hearing to consider testimony and evidence, both written and oral, as well as other documents contained in the record of the proceedings relating to the project. Following the public hearing, the DRB voted 4-0, with one absence, to adopt Resolution No. DRB24-03, recommending approval of Design Review (DR23-0019) and Landscape Review (LR23-0013) to the Planning Commission.

Location and Land Use Context

The project site consists of two parcels, totaling 17.17-acres, located east of Rollingwood Drive near the intersection of Dryden Drive. The project site is surrounded by detached single-family residences and Dryden Drive to the north, Rollingwood Drive, single-family residences and Skyview Memorial Lawn Cemetery to the east, vacant land to the south, and single-family residences within unincorporated (Solano County) to the west (see Figure 1).

Interstate 780 (I-780) is approximately 0.5 miles to the south and Interstate-80 is approximately 1.25 miles to the west. Each provides regional access while Rollingwood Drive provides direct access to the project site.

The project site is relatively flat with a slight slope up towards the east and south. Open land containing a drainage ditch with associated emergent marsh wetland exists along the northern boundary of the site, and potential seasonal wetlands exist in the central area of property. The site's General Plan 2040 Land Use Designation is Mix of Housing Types (R-MH) and the Zoning District is Residential Medium Density (RMD).

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Figure 1 – Location Map



Project Description

The proposed project consists of a Vesting Tentative Subdivision Map, Development Review, Exception, Minor Use Permit, and Design Review for the construction of 130 single-family homes, with associated site improvements. The Vesting Tentative Map would create a total of 140 lots including 130 for the construction of single-family residences, and ten additional lots for bioretention, detention, and water quality basins, and open space parcels on 17.76 acres (see Figure 2). The Exception is being requested to allow an increase to the maximum allowable garage width on the façade of the proposed dwellings from 50% to 62.5% (a 25% increase). The Minor Use Permit is required for a small lot subdivision.

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The 130 single-family lots are proposed to be developed with five different floor plans to be dispersed throughout the subdivision, each offering three different architectural variations, including a "Spanish," "Craftsman," or "Farmhouse" architectural style (refer to Table 1 for floor breakdown). The five different floor plans range from 1,664 square feet to 2,204 square feet with an overall maximum building height of 26 feet and three inches. Each floor plan comes with a total of three bedrooms and two and half bathrooms. Floor plan three has the option of converting an upstairs loft into a fourth bedroom while floor plans four and five have the option of converting a downstairs den into a fourth bedroom and/or a upstairs loft into a fourth or fifth bedroom. Each floor plan also has the option to add a covered patio in the rear. Lastly, each floor plan comes standard with an attached garage that

Table 1 – Floor Plan Breakdown				
Floor Plans	Building Size (Sq Ft)	Building Height (Feet)	Bedrooms / Bathrooms	Total Units
1	1,664 – 1,674	24 – 25'-1"	3/2.5	26
2	1,870 – 1,891	23'-8" to 26'-4"	3/2.5	26
3	1,972 – 1,991	23'-8" to 26'-3"	3/2.5	26
4	2,124 – 2,135	23'-8" to 26'-3"	3/2.5	26
5	2,198 – 2,204	23'-8" to 26'-3"	3/2.5	26
Total:				130

includes an additional minimum 200 square-feet of storage space.

In addition to the residential units, the proposed subdivision would include new streets, sidewalks, curbs, gutters, lighting, various bioretention basins, and open space. Each residential unit would include new landscaping within the front yards.

CODE COMPLIANCE

I. Required Entitlements & Findings

The project requires Design Review¹ for a residential project of 50 or more units, Development Review² and Vesting Tentative Map³ for the construction of 130 new single-family residences and creation of 140 parcels, and a Minor Use Permit⁴ for the proposed small lot subdivision. An Exception⁵ is required to grant relief from dimensional requirements of imposed on the garage widths of the proposed dwellings, not to exceed 25 percent of the requirement.

¹ VMC Chapter 16.604 – Design Review

² VMC Chapter 16.605 – Development Review

³ VMC Chapter 15.10 – Vesting Tentative Maps

⁴ VMC Chapter 16.606 – Minor and Major Use Permits

⁵ VMC Chapter 16.608 - Exceptions

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The Planning Commission will consider the recommendation of the Design Review Board for the Design Review in its action on those entitlements and act on the Design Review, Development Review, Minor Use Permit, Exception and Vesting Tentative Map entitlements directly. In addition to these entitlements, this project will also require a building permit(s) from the City of Vallejo.

a. Vesting Tentative Map Findings:

Vallejo Municipal Code (VMC) Section 15.08.050 (Findings Required) requires the review authority to make the following findings:.

1. The project is consistent with the goals and policies of the Vallejo General Plan and any applicable specific plans.
2. The project conforms with this title and the zoning ordinance.
3. The project conforms with the Subdivision Map Act.

b. Development Review Findings

VMC Section 16.605.03 requires the Review Authority to make findings with regard to the project prior to granting the Development Review. Specifically, that the project:

1. Complies with all applicable specific standards and criteria of this Zoning Code;
2. Is consistent with the general plan and any applicable approved specific plan or planned development;
3. Complies with any design conditions, standards, or requirements imposed by a discretionary approval including but not limited to a major or minor use permit, variance, specific plan, planned development, or tentative map applicable to the project or the location where it is proposed;
4. Is in substantial compliance with any applicable adopted design guidelines;
5. Will serve to achieve groupings of structures that are well related one to another and which, taken together, will result in a well-composed urban design, with consideration given to site, height, arrangement, texture, material, color and appurtenances, the relation of these factors to other structures in the immediate area, and the relation of the development to the total setting as seen from key points in the surrounding area; only elements of design which have some significant relationship to outside appearance shall be considered;
6. Will be of a quality and demonstrates thoughtful site planning that will serve to protect the value of private and public investments in the area; and
7. That the project has been reviewed in compliance with the California Environmental Quality Act, if applicable, and the requirements of this chapter.

c. Exception Findings

VMC Section 16.608.04 (Procedures), requires that the approving authority make the following findings prior to granting an Exception.

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060)**

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1. The exception is necessary due to the physical characteristics of the property and the proposed use or structure or other circumstances, including, but not limited to, topography, noise exposure, irregular property boundaries, or other unusual circumstance.
 2. There are no alternatives to the requested exception that could provide an equivalent level of benefit to the applicant with less potential detriment to surrounding owners and occupants or to the general public.
 3. The granting of the requested exception will not be detrimental to the health or safety of the public or the occupants of the property or result in a change in land use or density that would be inconsistent with the requirements of the Zoning Code.
 4. If the exception requested is to provide reasonable accommodation pursuant to state or federal law, the review authority must also make the following findings in addition to any other findings that this Zoning Code requires:
 - a. That the subject housing or property will be used by an individual or organization entitled to protection.
 - b. If the request for accommodation is to provide fair access to housing, that the request is necessary to make specific housing available to an individual protected under state or federal law.
 - c. That the conditions imposed, if any, are necessary to further a compelling public interest and represent the least restrictive means of furthering that interest.
 - d. That denial of the requested exception would impose a substantial burden on religious exercise or would conflict with any state or federal statute requiring reasonable accommodation to provide access to housing; and
 5. The project has been reviewed in compliance with the California Environmental Quality Act, if applicable, and the requirements of this chapter.
 6. Notice shall be provided in compliance with the requirements of Chapter 16.602, Common Procedures, Section 16.602.08, Noticing. When a project subject to an exception permit approval and requires a development review permit, use permit variance, an amendment of the Zoning Code or any other discretionary action, the notice for such approval shall also state that the project is subject to an exception.

d. Design Review

VMC Section 16.606.03 (B), requires the review authority to make the following findings prior to granting a Design Review approval:

2. The project is consistent with the purposes of this Chapter, the design policies of the General Plan and any applicable Specific Plan, any adopted applicable design guidelines;
3. The project is consistent with any planning or zoning approvals by the Director of the Planning Commission;
4. The project complies with any other relevant City policies or regulations; and
5. Meets the following criteria:

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- i. The aesthetic design, including its exterior design and landscaping, is appropriate to the function of the project and will provide an attractive and comfortable environment for occupants, visitors, and the general community.
 - ii. Project details, colors, materials, and landscaping are fully integrated with one another and used in a manner that is visually consistent with the proposed architectural design.
 - iii. The project has been designed with consideration of neighboring development.
 - iv. The project contributes to the creation of an attractive and visually interesting built environment that includes well-articulated structures that present varied building facades, rooflines, and building heights and encourages increased pedestrian activity and transit use.
 - v. Street frontages are attractive and interesting for pedestrians, address the street and provide for greater safety by allowing for surveillance of the street by people inside buildings and elsewhere.
 - vi. The proposed design is compatible with the historical or visual character of any area recognized by the City as having such character.
 - vii. The aesthetic design preserves significant public views and vistas from public streets and open spaces and enhances them by providing areas for pedestrian activity.
 - viii. The proposed landscaping plan is suitable for the type of project and will improve the appearance of the community by enhancing the building, minimizing hardscape and softening walls; and the landscape plan incorporates plant materials that are drought-tolerant, will minimize water usage, and are compatible with Vallejo's climate.
 - ix. The project has been designed to be energy efficient including, but not limited to, landscape design and green or eco-friendly design and materials.
 - x. The project design protects and integrates natural features including creeks, open space, significant vegetation, and geologic features.

e. Minor Use Permit Findings

VMC Section 16.606.03 (Required Findings), requires that the approving authority make the following findings prior to granting a Minor or Major Use Permit.

1. The proposed use is conditionally allowed within the applicable zoning district and complies with all other applicable provisions of the Zoning Code and all other titles of the Vallejo Municipal Code.
2. The proposed use is consistent with the General Plan and any applicable Specific Plan or Planned Development and any other applicable plans.
3. The subject parcel is physically suitable for the type of land use being proposed.
4. The proposed use is compatible with existing and permissible land uses within the zoning district and the general area in which the proposed use is to be located which may include but not be limited to size, intensity, hours of operation, number of employees, or the nature of the operation.
5. The physical location or placement of the use on the site is compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood.

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6. The proposed use and related project features will not create any nuisances arising from the emission of odor, dust, gas, noise, vibration, smoke, heat or glare at a level exceeding ambient conditions and would not otherwise be detrimental to the public interest, health, safety, or general welfare.
7. The project has been reviewed in compliance with the California Environmental Quality Act (CEQA), if applicable, and the requirements of this Chapter.

II. Staff Analysis

Staff believe all the applicable Vesting Tentative Map, Development Review, Exception, Minor Use Permit, and Design Review findings listed above can be made for the proposed project. A summary of staff's analysis associated with each required finding is included in the attached Resolution (Attachment 2 of this report).

i. General Plan Consistency

The General Plan 2040 Land Use Designation for the subject property is Mix of Housing Types/Medium Density (R-MH). The General Plan characterizes this designation as follows:

The R-MH designation applies to residential neighborhoods largely characterized either by 1) single-family homes but with a mix of other housing types, including duplexes, triplexes, fourplexes, some smaller scale apartment buildings, and small commercial spaces; or 2) primarily single use, multi-family developments with common outdoor spaces. The residential neighborhoods with single-family and other housing types are typically located in the central and more historic parts of Vallejo. Dwellings typically have front and rear yards, as well as side setbacks. Zero side lots (zero lot lines) may be appropriate where they can be visually integrated into the existing neighborhood context. Permitted land uses include single-family homes; in some instances, duplexes, triplexes, fourplexes, smaller scale apartment buildings, small commercial spaces; and public facilities such as schools, religious institutions, parks, and other community facilities appropriate within a residential neighborhood. For primarily single-use, multi-family development, the R-MH designation applies to residential areas primarily characterized by parcels and buildings containing multiple residences, sometimes on several floors, and, in some instances, small commercial spaces. They are similar in character to those permitted in Primarily Multi-Family (R-MF), but with a lower residential density. The maximum permitted residential density in the R-MH designation is 25 dwelling units per acre

The project is consistent with the R-MH land use designation in that it consists of a residential development of 130 single-family dwelling units and proposes a density of 7.3 units per acre, which is below the maximum allowed density of 25 dwelling units per acre. Additionally, the project is also consistent with applicable General Plan 2040 policies and actions, as illustrated in Table 2.

Table 2 - General Plan 2040 Policies and Actions	
Policies and Actions	Staff's Analysis

Subject: ADOPT A RESOLUTION MAKING FINDINGS RELATING TO AN ADDENDUM TO THE CERTIFIED EIR FOR THE GENERAL PLAN 2040 AND APPROVING A VESTING TENTATIVE MAP (TM23-0003), DEVELOPMENT REVIEW (DVR23-0042), EXCEPTION (EXC24-0001), MINOR USE PERMIT (MUP23-0019), LANDSCAPING REVIEW (LR23-0013 AND DESIGN REVIEW (DR23-0019) FOR THE DEVELOPMENT OF 130 SINGLE-FAMILY RESIDENCES AT 201 ROLLINGWOOD DRIVE (APNS: 0072-170-050 & 0072-050-060)

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Policy NBE-1.8: Urban Forest. Encourage planting of street trees and landscaping to beautify the city, encourage walking and biking and create a stronger sense of identity.	<i>Facts in Support: The project involves the planting of many trees, shrubs, and groundcover plantings contributing to the beautification of Vallejo and the cultivation of an urban forest. The construction of sidewalk improvements within the project would contribute to the pedestrian realm within the subject site.</i>
Policy NBE-2.3: Inviting, Compatible Design. Promote attractive development that is compatible with surrounding uses.	<i>Facts in Support: The project architecture is of a high quality that includes a variety of materials and three different architectural styles. The building height and mass are not out of scale with existing structures located in proximity.</i>
Policy NBE-2.8: Infill Development. Promote infill development targets vacant and underutilized sites for community-desired and enhancing uses that is compatible with surrounding uses.	<i>Facts in Support: The proposed residential project would result in the development of additional units, fulfilling a housing need in the community and is compatible with the collection of surrounding uses.</i>
Policy NBE-3.13: Neighborhood Corridor. Preserve the character of existing single-family residential neighborhoods.	<i>Facts in Support: The proposal has been carefully reviewed to ensure the project minimizes impacts to the character of existing single-family neighborhoods adjacent to the project site. The proposed subdivision includes open space and detention and bioretention basins that provide a transitional buffer and has a compatible density with adjacent residential development.</i>
Policy NBE-1.15: Energy Efficiency: Support measures to reduce energy consumption and increase energy efficiency in residential, commercial, industrial, and public buildings.	<i>Facts in Support: The project would be required to comply with standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. California's Green Building Standards Code (CBC Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction projects. The project includes sustainable and energy-efficient features, including solar panels and an all-electric design, each provided at or exceeding City requirements.</i>

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Housing Element Policy A.2: The project will convert vacant infill land into single-unit residences that are compatible with the surrounding area which includes existing single-unit residences to the north, east, and west.	<i>Facts in Support: The project will develop an underutilized site into a subdivision with detached single-family residences that are compatible with the surrounding single-family residences that are to the north, east and west.</i>
POLICY CP-1.15 Water Quality. Maintain and improve water quality in a way that provides public and environmental health benefits.	<i>Facts in Support: The project incorporates approximately 2.46-acres (107,506 square feet) of Bioretention and Detention Basins for stormwater control to reduce runoff levels, improve infiltration to replenish groundwater sources, reduce localized flooding, and reduce pollutants close to their source.</i>
Action CP-1.15A Require new development to incorporate site design, source control, and treatment measures to keep pollutants out of stormwater during construction and operational phases, consistent with City of Vallejo Municipal Ordinance.	<i>Facts in Support: During construction of the project, the developer will practice best construction practices to prevent pollutants out of the stormwater systems.</i>
Action CP-1.15B Encourage new development to incorporate low impact development (LID) strategies, such as rain gardens, filter strips, swales, and other natural drainage strategies, to the greatest extent feasible, in order to reduce stormwater runoff levels, improve infiltration to replenish groundwater sources, reduce localized flooding, and reduce pollutants close to their source.	<i>See Policy CP-1.15.</i>
Action CP-1.15D Require new development to connect to the Vallejo Sanitation and Flood Control District sewer system for treatment of wastewater	<i>Facts in Support: The project will include new utilities, such as sanitary sewer lines, that will run from each individual home, to new sewer system and connect to existing line on Hargus Avenue.</i>

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rather than septic systems, which are not allowed.	
Housing Element Policy F.1 The project will provide housing options for a range of income levels and will facilitate the construction of small lot residential development, that will provide a variety of architectural styles and higher density compared to existing residential development adjacent to the project site.	<i>Facts in Support: The project includes a small lot development, with lot sizes of a minimum of 2,800 square feet to provide housing options with a variety of architectural style.</i>

ii. Zoning Code Compliance

The project site is zoned Residential Medium Density (RMD). The Zoning Code provides the following description of the RMD zoning district:

The RMD Zoning District is intended to create and establish regulations for a district with a mix of housing types, including attached and detached, and small apartment buildings, subject to density limits (up to twenty-five dwelling units per acre) and design and development standards to ensure land use compatibility. Mixed-use development with residential and small commercial spaces may also be seen in this district. This district also allows a variety of neighborhood supportive services, public and educational facilities, open spaces, and community facilities. Front, corner side, and rear yards are required, and zero-side yard development is permitted subject to discretionary review. In the established neighborhoods of the city, it is the intent of this district to maintain the existing pattern of single-family residences, including attached units and duplexes, while in the undeveloped areas of the city, it is the intent of this district to encourage the creation of multi-unit residential neighborhoods with a variety of housing types.

VMC Table 16.102-A: Zoning Districts provides that the RMD Zoning District implements the R-MH General Plan Land Use Designation. VMC Table 16.301 – A: Land Use Regulations provides that a “single-unit, detached” residential dwelling is a principally permitted use in the RMD zone district, and small lot development is permitted with a Minor Use Permit (MNP).

Development Standards

The proposed project was reviewed against applicable development standards found within the RMD zoning district and other chapters and sections that apply to the project as detailed in Table 3.

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Table 3 – RMD/Small Lot/Single Unit Development Standards (VMC16.202.02, -03, and -05)			
Development Standard		Proposal	Compliant
Density	25 units/acre Allowed: 443 units on lot size of 17.76-Acres	New: 130 Existing: 0 Total: 130	Yes
Minimum Lot Size	2,000 sq.ft.	2,800 minimum (residential lots)	Yes
Minimum Lot Width	25 feet	40 feet	Yes
Maximum Lot Coverage	65%	45.9% to 52%	Yes
Maximum Building Height	35 feet	Ranges from 23' 5" to 26' 10"	Yes
Minimum Setbacks	Front: 10 feet; 7 feet for porches, stoops, and dooryards	10 feet	Yes
	Interior: 0 or 3 feet for the first story, 5 feet for 2 to 3 stories	5 feet	Yes
	Rear: 5 feet	5 feet	Yes
Access Location	Alley or side street preferred	Direct access from street	Yes
Orientation	Facades shall be designed to be oriented towards the public street or to a common courtyard, if provided.	Facades facing the street or open space are enhanced.	Yes
Entrance Location	The main entrance to each ground floor dwelling shall be visible to and located directly off a common courtyard or directly from the street.	Plans 1 through 3 have main entrances facing the street; Plans 4 and 5 have entrances facing each other.	Yes
Minimum Private Open Space Per Unit	300 square feet	540 sq.ft. to 854 sq.ft.	Yes
Minimum Open Space Dimensions	Private Ground Floor: 15	15 ft. to 16.7 ft.	Yes
Minimum Visible Landscaping (% of site):	30	30 percent	Yes
On-site space parking per unit	1 covered	130 covered (within garage) off-street parking spaces	Yes
Minimum Amount of Enclosed Storage Area in garages and accessory structure (sq. ft.)	200 sq.ft.	200 sq.ft in garage	Yes
Street Trees	1 per 50 ft. of frontage and at least 5 ft. in height when planted.	384 Trees	Yes

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Principal Entry Feature	Visible from street or Courtyard Projection or Recess with minimum depth of 5 ft.	Plan 1 – 16 ft. Plan 2 – 5 ft. Plan 3 – 6.5 ft. Plan 4 – 2.5 ft. Plan 5 – 2.5 ft.	Yes
Enhanced Street Side Yard Elevations	Horizontal plane break at least 3 ft. Vertical plane break at least 1 ft. *Alternative design may be approved by approving body	3 ft. minimum horizontal plan break 1 ft. minimum vertical plane break	Yes
Materials	Long-lasting, durable materials required for dwellings	Stucco, Stone veneer, fiber cement shake and board and batten	Yes
Maximum Garage Width Percentage of Façade	50% of the façade width	18.75 feet (62.5%)	Yes (with Exception)
Front Yard Paving	50% of the required street facing yard (15 ft)	Less than 50%	Yes
Driveways	Maximum of one driveway per dwelling 20 ft. maximum width Minimum setback of 5 ft. from property line Minimum 3 ft. wide planter adjacent to side or rear property line	One driveway per dwelling Minimum 5 ft. from property lines 3 ft. planter adjacent to side property lines	Yes

As proposed and conditioned, the project is consistent with all applicable development standards of the VMC.

iii. Demolition of Existing Baseball Facilities

Development of the proposed project would require the demolition and removal of the existing baseball fields and the related accessory structures throughout the site. The environmental consultant, Environmental Science Associates (ESA), conducted a site survey and prepared a cultural resources study for the project. That study concluded that the baseball fields and structures are not historically significant and therefore demolition would not result in a significant impact to the environment under CEQA.

Additionally, there are no previously recorded archaeological resources documented within the proposed project site and the site is considered to have a low potential for discovery of previously undiscovered archaeological resources. Implementation of the previously adopted Mitigation Measure CULT-2 from the General Plan EIR will be performed in the event of accidental discovery of archaeological resources during project construction.

iv. Vesting Tentative Map/Small Lot Development

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The proposed tentative map will subdivide the two vacant lots totaling 17.76 acres to create 140 new residential parcels including several parcels for water quality, open space, and roadway dedication purposes. As part of the proposed vesting tentative map, the applicant is requesting a Minor Use Permit to construct a small-lot development. A small lot development would allow the creation of smaller residential lots, no less than 2,000 square feet and with a minimum width of 25 feet, where minimums of 5,000 square feet and 50 foot widths would otherwise be required. The proposed residential lots would range in size from 2,800 square feet to 6,752 square feet, with the majority of the lots on the smaller side. The proposed overall density of the project is 7.3 dwelling units per acre, consistent with the R-MH land use designation and RMH zoning district that permits a maximum density of 25 units per acre. The proposed subdivision would also include two open space parcels, one bioretention parcel, a detention basin parcel, two biotreatment water quality parcels, and one parcel for the dedication of Rollingwood Drive along the project frontage.

The proposed subdivision has been designed to meet the applicable development standards for small lot residential developments, and the RMD zoning district where applicable. The proposed parcels and floor plan designs would meet minimum setbacks (10 feet front, 5 feet side, 5 feet rear), with lot coverages between 45.9-52 percent, allowing private outdoor spaces for residents in the rear and covered porches in the front. The proposed subdivision layout integrates into the overall neighborhood framework of the surrounding residential development to the north and west of the project site. The subdivision layout also incorporates a natural buffer area by preserving open space at the northern boundary between the residences to the north and bioretention and detention basins adjacent to the residential units to the west.

v. Architecture

As previously mentioned, the project consists of the development of 130 detached single-unit dwellings with attached two-car garages, featuring three-bedroom, two and half bathroom layouts. The proposed dwellings feature two-story floor plans ranging in overall height between 23.75 feet and 26.25 feet. The proposed dwellings would be broken down into five different floor plans, with each floor plan incorporating three unique architectural styles (Craftsman, Farmhouse, and Spanish [See Figure 3]). Each of the architectural styles also features three unique exterior paint color schemes. The subdivision would not repeat floor plans on any two adjacent lots.

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Figure 3 – Architectural Styles



Spanish Elevation

The “Spanish” architectural style would be fully stucco, with gable and hip roofs, concrete ‘S’ roof tiles, arched porch openings, clay pipe details, plank shutters, entry courtyards with porticos and a 16-panel garage door. A total of three different color schemes would be available for the “Spanish” style.

Craftsman Elevation

The “Craftsman” architectural style would have gable roofs, ‘shake’ concrete roof tiles, tapered columns, shake siding, stone veneer, decorative out lookers and knockers, shaped corbels, and plank shutters with a diamond cut out and 32-panel garage door.

Each proposed elevation incorporates design elements specific to the Craftsman, Farmhouse, and Spanish styles, with each elevation featuring roof variations and slope and plane breaks to create visual interest with each of the two-story dwellings. Secondary facades facing a street side yard would also incorporate horizontal and vertical plane breaks to create additional visual interest from public viewpoints. All windows would include exterior trim and grids, and primary facades facing a street include enhanced architectural elements such as wood shutters, stone veneer, gable vents, and covered entry features. In addition to these design features, each dwelling is also consistent with the required design standards for single-unit dwellings per VMC Section 16.202.03, as summarized in Table 2. These standards ensure appropriate design elements are incorporated into the exterior façade and front yard area of each dwelling. The proposed dwellings are also designed to be energy efficient and would be designed to meet the California Building Code Title 24 (energy efficiency standards) and the Green Building Standards.

vi. Landscape Review

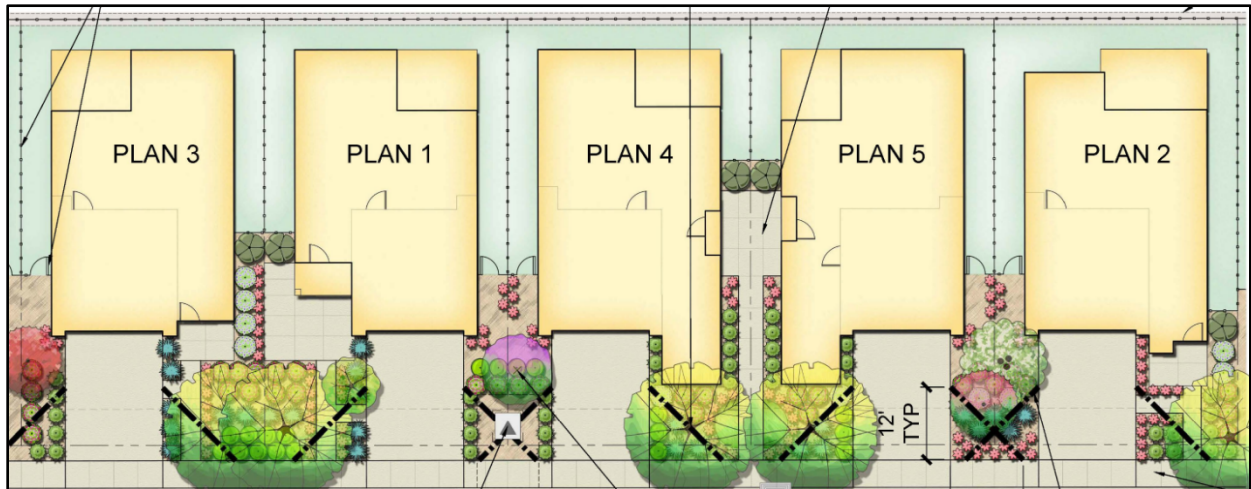
The proposed subdivision would include the installation of new landscaping throughout the project to serve the new dwelling units. VMC Table 16.504-A: Landscape Requirements states that the front yard of each single-unit dwelling shall be landscaped consistent with the development standards of VMC Chapter 16.504 - Landscaping. Additionally, VMC Section 16.504.09(C.1) requires that proposed landscaping for new development with an aggregate landscape area greater than 500 square feet be constructed in accordance with Water Efficient Landscape Requirements.

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The proposed landscape plan includes a typical front yard landscape planting design and layout for both interior and corner lots. Each lot would include a primary shade tree and an accent tree, and a variety of groundcovers and small shrubs (see Figure 4). Primary street trees include Silver Linden, European Hackberry, Coast Live Oak, and Sweet Bay, while accent trees would consist of Lavender and Standard Crape Myrtle, Cork Oak, and Peppermint tree. A total of 384 new trees would be planted throughout the subdivision.

Figure 4 – Typical Front Yard Landscaping



The project also includes biotreatment and stormwater detention basins that would be improved with landscaping. Biotreatment areas would include a native ornamental bioswale seed mix, and the detention basin would contain grass and wildflower mix. A vegetated buffer would be provided around these facilities with a mix of flowers, shrubs, and bunchgrass. A pedestrian trail would pass through this vegetated buffer area between the stormwater detention and large bioretention basins.

The project site has existing trees located primarily near the perimeter of the site. Under VMC Chapter 10.12, trees on any street, park, pleasure ground, boulevard, alley, or public place of the city are protected, and any existing trees six inches in diameter or greater, are required to be assessed prior to removal. An arborist report was prepared for the project which included an assessment of a total of 44 trees (31 on-site and 13 off-site), identifying 17 different tree species. Coast live oak was the most common tree species, followed by Arizona cypress. The observed tree health ranged from poor to good condition, and the assessment determined a recommendation for the removal of all 31 existing on-site trees, which have been proposed on the development plans.

vii. Access, Circulation and Parking

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Primary access to the new subdivision would be provided by two new streets off Rollingwood Drive (Streets "A" and "C") that run east to west. These access streets would connect to three new streets ("B", "D" and "E") that run north to south (see Figure 5).

All new residences would have direct access from the new public streets, except for three parcels that would be accessed via a private driveway located at the rear of the subdivision (northeast terminus of Street A). The proposed internal streets would consist of a 50-foot right-of-way including two 18-foot-wide travel lanes, and 4.5-foot attached sidewalks. Due to site constraints, one block of roadway within the subdivision would have a reduced right-of-way section at 42 feet with 14-foot-wide travel lanes. While incorporating smaller residential lots, the subdivision features a comparable roadway network layout with available street parking and sidewalks with two separate points of ingress and egress onto Rollingwood Drive.

Figure 5 - Circulation

The project is subject to compliance with off-street parking standards for single-unit dwellings, as required by VMC Chapter 16.508 - Off-Street Parking and Loading. Each dwelling unit is required to provide a minimum of one covered parking space. As proposed, each unit would feature two covered off-street parking spaces in an attached garage and two additional uncovered off-street parking spaces on the driveway pad in front of each unit, totaling 520 off-street parking spaces. Approximately 107 on-street parking would also be available for residents and visitors throughout the subdivision; however, the exact number of spaces would depend on the spacing between driveways and placement of utilities such as fire hydrants.

viii. Exception

The proposed project consists of a small lot subdivision with reduced lot widths and lot sizes to allow for an increase in residential density. The VMC prescribes



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development standards for single-unit dwellings including architectural design standards that are required for each of the proposed dwellings. VMC Section 16.202.03 (D) – Garage Frontage states, “when an attached garage is located on the front half of the lot and garage doors face a street, garage width shall not exceed fifty percent of the width of the front facade of the building.” Based on the proposed lot configurations and two-story designs of each dwelling, the garage width exceeds 50 percent of the building frontage for each unit. The applicant has requested an exception to increase the garage width by 25 percent to allow each dwelling to include a standard size two-car garage width measuring 18.75 feet in width.

Without the exception, the maximum garage width would be 15 feet for the proposed 30-foot-wide residential units. Staff finds the proposed increase in garage width would not negatively impact the streetscape, the overall design, nor dominate the primary façade. Additionally, the wider garages would allow for additional off-street parking for residents and visitors, where street parking may be limited.

NOTICE AND COMMENTS

On August 25, 2025, pursuant to VMC Section 16.602.08, a notice of this hearing was published in the Times Herald, mailed to all active neighborhood groups, all property owners within 500 feet of the subject property, any other interested parties, the Vallejo Unified School District, local agencies expected to provide water, wastewater treatment, and/or other essential facilities or services to the project, the applicant, and electronically sent to the members of the Planning Commission.

As of the writing of this staff report, staff has not received any comments or questions regarding the project.

ENVIRONMENTAL REVIEW

The City retained ESA Associates, Inc (ESA) to prepare an addendum to the existing Vallejo General Plan 2040 Environmental Impact Report (EIR)(State Clearing House [SCH]#20141120356), certified by the City Council on August 29, 2017, to evaluate whether the proposed project would result in any new or substantially more adverse significant effects or require new mitigation measures not identified in the General Plan 2040 EIR. The addendum prepared by ESA is included as Exhibit D of Attachment 3.

Given the analysis contained in the addendum, development of the proposed project would not cause any new or substantially more severe significant environmental effects that were not previously examined in the Certified EIR and would not require any new mitigation measures. Therefore, no further environmental analysis is required pursuant to Section 15162 and Section 15164 of the State California Environmental Quality Act (CEQA) Guidelines.

CONCLUSION

Based on the analysis contained in this staff report and attachments, staff recommends that the Planning Commission adopt the proposed resolution making findings related to an addendum and to the certified Environmental Impact Report for General Plan 2040 and approving a Vesting Tentative Map (TM23-0003), Development Review (DVR23-0042), Exception (EXC24-0001), Minor Use Permit (MUP23-0019), Landscape Review (LR23-0013) and Design Review (DR23-0019), subject to the Conditions of Approval provided as Exhibit A

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to the Resolution.

APPEAL PROCEDURE

The applicant, or any party adversely affected by the decision of the Planning Commission may, within ten days after the rendering of the decision of the Planning Commission, appeal in writing to the City Council by filing a written appeal with a fee as prescribed in the Master Fee Schedule with the City Clerk. Such written appeal shall state the reason or reasons for the appeal and why the applicant believes he or she is adversely affected by the decision of the Planning Commission. Such appeal shall not be filed timely unless it is received by the City Clerk or designee no later than the closing of business on the tenth calendar day after the date of the decision. If such date falls on a weekend or City holiday, then the deadline shall be extended until the next regular business day.

Notice of the appeal, including the date and time of the City Council's consideration of the appeal, shall be sent by the City Clerk to all property owners within five hundred feet of the project boundary. The Council may affirm, reverse, or modify any decision of the Planning Commission that is appealed.

LEVINE ACT:

This item is subject to the Levine Act. City elected and appointed officials, including candidates for City elected office, (City Officers) who have received a campaign contribution of more than \$500 within 12 months prior from a party, participant, or their representatives involved in this proceeding may do either of the following: (1) disclose the contribution on the record and recuse themselves from this proceeding; OR (2) return the portion of the contribution that exceeds \$500 within 30 days from the time the elected official knew or should have known about the contribution and participate in the proceeding.

All parties, participants, and their representatives must disclose on the record of this proceeding any contribution of more than \$500 made to the City Officers, such as the Mayor and/or Councilmembers, within 12 months prior to the date of the proceeding. City Officers are prohibited from accepting, soliciting, or directing a contribution of more than \$500 from a party, participant, or their representatives during a proceeding and for 12 months following the date a final decision is rendered.

CONTACT

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Robby.Thacker@cityofvallejo.net

CITY OF VALLEJO PLANNING COMMISSION

RESOLUTION NO. PC 25-XX

**A RESOLUTION OF THE PLANNING COMMISSION MAKING FINDINGS RELATING TO AN
ADDENDUM TO THE CERTIFIED ENVIRONMENTAL IMPACT REPORT FOR GENERAL
PLAN 2040 PURSUANT TO CEQA GUIDELINES SECTIONS 15162 AND 15164 AND
APPROVING A VESTING TENTATIVE MAP (TM23-0003), DEVELOPMENT REVIEW (DVR23-
0042), EXCEPTION (EXC24-0001), MINOR USE PERMIT (MUP23-0019), DESIGN REVIEW
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SINGLE-FAMILY RESIDENCES AT 201 ROLLINGWOOD DRIVE
(APNs: 0072-170-050 & -060)**

WHEREAS, on August 29, 2017, the City Council adopted General Plan 2040; and

WHEREAS, on June 22, 2021, the City Council adopted a new Zoning Code and Zoning Map; and

WHEREAS, on June 21, 2023, KB Home North Bay, LLC, the applicant, with consent of the Vallejo Unified School District as property owner, submitted a preliminary application pursuant to California State Bill (SB) 330, the Housing Crisis Act of 2019 to develop 17.76 acres of vacant land at 201 Rollingwood Drive (APNs: 0072-170-050 and -060) (the "Subject Property"); and

WHEREAS, on October 16, 2023, the applicant submitted an application for a Vesting Tentative Map, Development Review, Design Review, Landscape Review, and Minor Use Permit to develop a small lot subdivision consisting of 130 single-unit homes with 140 total lots on the Subject Property; and

WHEREAS, on January 23, 2024, the applicant applied for an Exception in relation to the Development Review permit to increase the overall width of the garages of the proposed homes by 25 percent. The Vesting Tentative Map, Development Review, Exception, Design Review, Landscape Review, and Minor Use Permit applied for by the applicant together constitute the "Project"; and

WHEREAS, the Subject Property has a General Plan 2040 land use designation of Mix of Housing Types/Medium Density (R-MH); and

WHEREAS, the Subject Property has a zoning designation of Residential Medium Density (RMD); and

WHEREAS, on July 24, 2024, the Project was determined to be complete for processing; and

WHEREAS, on September 26, 2024, pursuant to Vallejo Municipal Code (VMC) Section 16.602.08(A), notice of a public hearing before the Design Review Board was published in the Times Herald and mailed to all active neighborhood groups and property owners within 500 feet of the Subject Property and electronically mailed to the members of the Design Review Board, the owner, and the applicant of the Subject Property; and

WHEREAS, on October 10, 2024, the Design Review Board, after giving all public notices required by State law and the City of Vallejo Municipal Code, opened the public hearing and continued the item to December 12, 2024; and

WHEREAS, on December 12, 2024, at 7p.m., the Design Review Board, after giving all public notices required by State law and the City of Vallejo Municipal Code, conducted a duly noticed public hearing; and

WHEREAS, the Design Review Board considered testimony and evidence, both written and oral, provided at the public hearing, as well as other documents contained in the record of proceedings relating to the Design and Landscape Review entitlements of the Project, which are maintained in the offices of the City of Vallejo Planning Division and voted 4-0, with one absence, to adopt a Resolution recommending approval of Design Review (DR23-0019) and Landscape Review (LR23-0013) to the Planning Commission; and

WHEREAS, on August 25, 2025, pursuant to Vallejo Municipal Code Section 16.602.08(A), notice of this hearing was published in the Times Herald and mailed to all active neighborhood groups and property owners within 500 feet of the Property and electronically mailed to the members of the Planning Commission, the property owner, and to the applicant; and

WHEREAS, the Planning Commission conducted a duly noticed public hearing on October 6, 2025 regarding the Project, including the recommended environmental review determination prepared pursuant to CEQA.

NOW, THEREFORE, LET IT BE RESOLVED that the Planning Commission hereby finds, determines and resolves as follows:

Section 1. Recitals

The foregoing recitals are true and correct, and the same are incorporated herein by reference.

Section 2. Record

The Record of Proceedings ("Record") upon which the Planning Commission bases its decisions on the Project includes but is not limited to: (1) the staff reports, City files and records, and other documents prepared for and/or submitted to the City relating to the Project; (2) the evidence, facts, findings and other determinations set forth in this resolution; (3) Vallejo General Plan 2040 and its certified final Environmental Impact Report ("GP EIR"), the Addendum to the GP EIR dated September 2025 and prepared by Environmental Science Associates, the 2021 Zoning Code and its Initial Study and Mitigated Negative Declaration, the Vallejo 2023-2031 Housing Element, and the Vallejo Municipal Code; (4) all designs, plans, studies, data and correspondence submitted to the City in connection with the Project; (5) all documentary and oral evidence received at public meetings, hearings, or submitted to the City during the comment period relating to the Project; and (6) all other matters of common knowledge to the Planning Commission including, but not limited to, City state, and federal laws, policies, rules, regulations, reports, records, and projections related to development within the City of Vallejo and its surrounding areas.

The location and custodian of the records is the Planning and Development Services of the City of Vallejo, 555 Santa Clara Street, Vallejo, California 94590.

Section 3. California Environmental Quality Act Findings

Based upon information in the Addendum, incorporated herein by reference, the Record as described above, and all other matters deemed material and relevant prior to adopting this resolution, the Planning Commission hereby finds and determines:

- a. The Addendum has been completed in compliance with the California Environmental Quality Act (Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 & 15164);

- b. The Planning Commission considered the GP EIR and Addendum before making its decision to approve the Project; and
- c. The Addendum reflects the City's independent judgment and analysis as Lead Agency.

The Planning Commission further finds that none of the circumstances set forth in CEQA Guidelines Section 15162 are present with respect to the Project and no further environmental review is required based on the following findings:

1. **Substantial changes are not proposed in the project which will require revisions of the GP EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;**

Facts in Support: The Project proposes a land use that is consistent with the existing GP designations. The characteristics of the proposed Project are the same as previously assumed in the General Plan EIR. Impacts analyzed in the General Plan EIR would remain the same with the proposed Project. Thus, the proposed Project does not require a major revision to the EIR and does not substantially increase the severity of previously identified significant effects;

2. **Substantial changes have not occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;**

Facts in Support: The circumstances under which the proposed Project would occur are not changed from what was assumed in the General Plan EIR, nor does the proposed Project result in a new or substantial increase in the severity of significant impacts in the General Plan EIR, as demonstrated in the Environmental Checklist in Section 3 of the Addendum. No notable circumstances pertaining to the Project site or its surroundings have occurred since the General Plan EIR analysis was prepared. While updates and changes have occurred to certain CEQA criteria, thresholds, and/or analysis approaches as a result of amendments to the CEQA Guidelines, caselaw, or other regulations or adopted standards and/or guidance, these are disclosed in the Checklist for public information and discussed to clarify that none are considered changed circumstances for purposes of this Section.

3. **No new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the GP EIR was adopted, shows any of the following:**

- A. **The Project will have one or more significant effects not discussed in the GP EIR;**

Facts in Support: The GP EIR identifies significant and unavoidable impacts for air quality, GHG emissions, noise, and transportation. Because development of the proposed Project of 130 residential units on the Project site was factored into the GP EIR analysis, the Project would not exceed what was analyzed in the GP EIR, which considered a much greater level of citywide development. The proposed Project does not result in a significant effect that was not discussed in the previous GP EIR.

- B. **Significant effects previously examined will be substantially more severe than shown in the GP EIR;**

Facts in Support: As explained above, because development of the proposed

Project of 130 residential units on the Project site was factored into the GP EIR analysis, the Project would not exceed the General Plan EIR impacts, which considered a much greater level of citywide development of which the proposed Project is a part. The proposed Project does not result in a significant effect that is substantially more severe than shown in the previous GP EIR.

- C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or**

Facts in Support: The Project is not proposing any changes that would affect the feasibility of previously discussed mitigation measures or alternatives. No mitigation measures or alternatives in the GP EIR are changed in the Checklist to the Addendum, and not all of the mitigation measures are required or pertain to the proposed Project.

- D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.**

Facts in Support: There are no new mitigation measures or alternatives from those adopted in the GP EIR that would substantially reduce one or more significant effects on the environment. No mitigation measures or alternatives in the GP EIR have changed in the Checklist, and not all of the mitigation measures are required or pertain to the proposed Project.

Section 4. Vesting Tentative Map Findings

- 1. The project is consistent with the goals and policies of the Vallejo General Plan and any applicable specific plans.**

Facts in support: The project site has a general plan land use designation of R-MH, which applies to residential neighborhoods largely characterized by single-family homes typically located in the central and more historic parts of Vallejo. The maximum permitted residential density is 25 units per acre. As proposed, the project would construct 130 additional single-family dwellings units on a vacant and underutilized infill site adjacent to existing residential development. The proposed residential density of the project is 7.3 units per acre, consistent with the maximum permitted density for the R-MH designation. The project is consistent with the goals and policies of the Vallejo General Plan, as shown in Exhibit B of this Resolution.

There is no specific plan applicable to the project.

- 2. The project conforms with Title 15 of the Vallejo Municipal Code and the Zoning Ordinance.**

Facts in support: The proposed Vesting Tentative Map proposes to subdivide two vacant parcels, totaling 17.76-acres, into 130 residential parcels and ten (10) open space, detention, and water quality treatment parcels. The Vesting Tentative Map is subject to the applicable development standards of the RMD zoning district and to the applicable standards of Chapter 15.10 (Vesting Tentative Maps) of Title 15 (Subdivisions) of the VMC.

As proposed, the project is consistent with all applicable development standards in Title 16 as demonstrated in Table 1 of Exhibit B of this Resolution.

As proposed, the Vesting Tentative Map conforms to the applicable standards set forth in Title 15, as it is consistent with goals and policies of the Vallejo General Plan as described above and includes all of the elements required for a tentative map set forth in Section 15.08.030.

3. The project conforms with the Subdivision Map Act.

Facts in support: The California Subdivision Map Act (SMA) governs the division of land into smaller parcels, ensures orderly development and the provision of adequate infrastructure for new subdivisions. The SMA requires developers to submit maps showing how the land will be divided and ensures adequate access to utilities, drainage, and compliance with zoning and environmental regulations, thereby promoting public health, safety, and welfare.

The project and its accompanying Vesting Tentative Map have been reviewed for consistency with applicable General Plan and Housing Element policies, the Vallejo Municipal Code (Title 15 – Subdivisions and Title 16 – Zoning), and the Subdivision Map Act. As discussed above, the proposed Vesting Tentative Map is consistent with the Vallejo General Plan policies, and the applicable Zoning requirements, including those related to lot size for small-lot subdivisions, lot coverage, landscaping, and other relevant development standards. The project will also have adequate access to utilities, drainage, and infrastructure by providing new streets, sidewalks, water, sanitary sewer, storm drain lines, and bioretention and water quality basins, and a detention basin.

Section 5. Development Review Findings

1. The project complies with all applicable specific standards and criteria of the Zoning Code.

Facts in support: The proposed project is designated Residential Medium Density (RMD) under the Zoning Code. The RMD zone is intended to create and establish regulations for a district with a mix of housing types, including attached and detached dwellings, and small apartment buildings, with maximum density up to twenty-five dwelling units per acre. Mixed-use development and small commercial spaces are also permitted in this district, as are public and educational facilities, open spaces, and community facilities. Front, corner side, and rear yards are required, although zero-side yard development is permitted subject to discretionary review. In the established neighborhoods of the city, it is the intent of this district to maintain the existing pattern of single-family residences, including attached units and duplexes, while in the undeveloped areas of the city, it is the intent of this district to encourage the creation of multi-unit residential neighborhoods with a variety of housing types.

The proposed project complies with the applicable standards of the VMC Section 16.202.02 (RMD zoning district), VMC Section 16.202.05 (Small lot development), VMC Chapter 16.504 (Landscaping), 16.506 (Lighting and Glare), and 16.508 (Off-Street Parking and Loading), as demonstrated in the Table 1 of Exhibit B of this Resolution.

2. The project is consistent with the General Plan and any applicable approved Specific Plan or Planned Development.

Facts in support: The R-MH designation applies to residential neighborhoods largely characterized by single-family homes and typically located in the central and more historic parts of Vallejo. Dwellings are required to have front and rear yards, as well as side setbacks. Zero side lots (zero lot lines) may be allowed where they can be visually integrated into the existing neighborhood context. In some instances, duplexes, triplexes, fourplexes, smaller scale apartment buildings, small commercial spaces; and public facilities such as schools, religious institutions, parks, and other community facilities appropriate within a residential neighborhood are permitted within the R-MH designation. The maximum permitted residential density in the R-MH designation is 25 dwelling units per acre.

The project is consistent with the R-MH land use designation in that it proposes the development of 130 single-family dwelling units at a density of 7.3 units per acre, consistent with the maximum permitted density of 25 dwelling units per acre. Additionally, the project is consistent with policies of the 2040 General Plan as discussed in Exhibit B of this Resolution.

The proposed project will add 130 additional single-unit dwellings to the available housing stock in the City on a vacant and underutilized infill site adjacent to existing residential development. The subdivision layout is compatible with the existing roadway network and existing residential development density in the surrounding area. The subdivision will have adequate vehicular and pedestrian access throughout the site and will feature of a mix of floor plan layouts and architectural styles to create an inviting neighborhood that will be complimentary to the existing neighborhoods in the vicinity of the project.

There is no specific plan applicable to the Project.

- 3. The project complies with any design conditions, standards, or requirements imposed by a discretionary approval including but not limited to a Major or Minor Use Permit, Variance, Specific Plan, Planned Development, or tentative map applicable to the project or the location where it is proposed.**

Facts in support: The Small Lot Development is permitted within the RMD zone district subject to approval of a Minor Use Permit pursuant to VMC Section 16.202.05 (Small Lot Development) and complies with the development standards outlined in VMC Table 16.202-C, as demonstrated in Table 1 of Exhibit B. The project is consistent with the applicable development standards outlined in Title 16 of the Vallejo Municipal Code, as proposed and conditioned and as authorized by the requested Minor Use Permit and Exception.

- 4. The project is in substantial compliance with any applicable adopted design guidelines.**

Facts in support: The proposed project is consistent with the design standards for single unit residential development per VMC Section 16.202.03, as demonstrated in Table 2 of Exhibit B of this Resolution. Each dwelling unit incorporates design features consistent with the development standards for building articulation, entryway design, and maximum garage width. The project is also designed to be compatible with future development on adjacent parcels and is designed to provide quality architectural designs throughout the entire project and from public viewpoints from Rollingwood Drive. The project will incorporate new landscaping treatments and street trees along all public streets throughout the project and along Rollingwood Drive.

- 5. The project will serve to achieve groupings of structures that are well related one to another and which, taken together, will result in a well-composed urban design, with consideration given to site, height, arrangement, texture, material, color and appurtenances, the relation of these factors to other structures in the immediate area, and the relation of the development to the total setting as seen from key points in the surrounding area; only elements of design which have some significant relationship to outside appearance shall be considered;**

Facts in support: The project proposes to construct 130 new detached single-family dwellings with public streets, streetlights, and landscaping improvements. The project proposes five different residential floor plans and three architectural styles to create visual interest throughout the subdivision.

- 6. The project will be of a quality and demonstrates thoughtful site planning that will serve to protect the value of private and public investments in the area.**

Facts in support: The proposed dwellings will be setback from the street to create landscape buffers adjacent to public sidewalks throughout the proposed subdivision. The proposed subdivision layout will provide an open space buffer between existing homes to the north and will incorporate new single-family dwellings that are oriented toward the street. Required detention and bioretention basins are grouped together and sited at the rear of the subdivision to provide a buffer from existing residential development to the west and to reduce visibility from public view. The proposed street pattern layout does not incorporate sharp curves and will promote safety for vehicles and pedestrians.

- 7. The project has been reviewed in compliance with the California Environmental Quality Act, if applicable, and the requirements of this Chapter.**

Facts in support: See Section 3 above.

Section 6. Design Review Findings

- A. Is consistent with the purposes of this chapter, the design policies of the general plan and any applicable specific plan, any adopted applicable design guidelines:**

Purposes of the Chapter

- 1. Establish regulations for an objective process that applies urban design principles to ensure that new construction supports the best of the city's architectural traditions.**

Facts in support: As proposed, the project meets the objective design standards called out in VMC Chapter 16.202 – Residential Districts, as discussed in detail below and depicted in Exhibit B of this Resolution.

- 2. Encourage new structures that show creativity and imagination, add distinction, interest, and variety to the community, and are environmentally sustainable.**

Facts in support: The proposed home designs utilizing three distinct architectural styles will be constructed with a variety of building materials and painted with a variety of colors. Vertical and horizontal façade breaks, and appropriate building massing have been incorporated into the design of the subdivision and will create distinction in the context of the larger established neighborhood.

- 3. Promote architectural and design excellence in new construction and discourage poor quality development.**

Facts in support: The project details, colors, materials, and landscaping are integrated with one another to ensure a visually consistent proposal. Each architectural style will consist of building features, materials, and colors typically associated with that particular style. The Spanish style is fully stucco, has gable and hip roofs, concrete 'S' roof tiles, arched porch openings, clay pipe details, and plank shutters. The Craftsman style has gable roofs, 'shake' concrete roof tiles, tapered columns, shake siding, stone veneer, decorative outlookers and knockers, shaped corbels, and plank shutters with a diamond cut out. The Farmhouse style has gable and hip roofs, shake concrete roof tiles, board and batten exterior siding, band trim, decorative vents, enhanced header trims, and plank 'Z' shutters.

- 4. Ensure that future development should:**
- a. Reflect the values of the community.**
 - b. Enhance the surrounding environment.**
 - c. Visually harmonize with its surroundings and not unnecessarily obstruct scenic views; and**

d. Avoid nostalgic misrepresentations that may confuse the relationships among structures over time.

Facts in support: The proposed project: a) reflects the values of the community in that it implements several of the goals and policies of the General Plan as shown in Exhibit B of this Resolution; b) enhances the surrounding environment in that it develops an unused vacant parcel and constructs new single-family homes and plants 384 new trees; c) visually harmonizes with its surroundings and does not unnecessarily obstruct scenic in that it abuts residential neighborhoods of single-family homes, does not block scenic views, and provides tree-lined streets and sidewalks to blend into the neighborhoods to the north; and d) as the single-family homes will have a variety of architectural designs common in California over the past several decades and as the development is not located within an historic district, there is little likelihood that the project would confuse the relationships among structures in the vicinity over time.

5. Ensure that decisions on housing development projects are based on objective design standards as required by the State Housing Accountability Act (Government Code Section 65589.5) (HAA).

Facts in support: As described in Exhibit C of this Resolution, the project complies with applicable, objective general plan and zoning standards as required by the HAA, and Staff has not applied any subjective design standards to the proposed project.

6. Provide for new landscaping to create a visually pleasing setting for structures on the site.

Facts in support: Landscaping will be provided in the front yards, open spaces and around the bioretention basins. A total of 384 new trees, as well as shrubs and ground cover, will be planted within the subdivision.

7. Promote the protection and retention of landmark, native, and specimen trees and if feasible mature canopy trees and other significant landscaping of aesthetic and environmental value.

Facts in support: The project will remove a total of 31 existing trees. An arborist report was prepared and a total of 44 trees (31 on-site and 13 off-site) were assessed, identifying 17 different tree species. Coast live oak was the most common species with 12 existing trees, followed by Arizona cypress with eight. The trees ranged from poor to good condition. To supplement the removal of trees, a total of 384 new trees will be planted as part of the project.

8. Ensure that the design, quality, and location of signs are consistent with the character and scale of the structures to which they are attached and are visually harmonious with surrounding development.

Facts in support: No community development signage is proposed with the construction of the new homes; however, street signs are proposed.

9. Promote the conservation, enhancement, preservation, and protection of historic resources.

Facts in support: Not applicable; there are no historic resources near this project's location.

Design Policies of the General Plan

Facts in support: The proposed project is consistent with the applicable design policies of the Vallejo General Plan as set forth in Exhibit B of this Resolution.

Adopted Applicable Design Guidelines

Facts in support: The subject site is not within an adopted specific plan area and design guidelines have not been adopted for this location.

B. Is consistent with any planning or zoning approvals by the director or the planning commission.

Not applicable.

C. Complies with any other relevant city policies or regulations.

Facts in support: As discussed above, the proposed project is consistent with the Vallejo General Plan, complies with all applicable requirements of the Zoning Code, Title 15, and the Subdivision Map Act.

Section 7. Minor Use Permit Findings

1. The proposed use is conditionally allowed within the applicable zoning district and complies with all other applicable provisions of the Zoning Code and all other titles of the Vallejo Municipal Code.

Facts in support: As discussed above, the proposed project complies with all applicable provisions of the Zoning Code as demonstrated in Table 3 of Exhibit B and Title 15.

2. The proposed use is consistent with the General Plan and any applicable Specific Plan or Planned Development and any other applicable plans.

Facts in support: The R-MH designation applies to residential neighborhoods largely characterized by single-family homes and typically located in the central and more historic parts of Vallejo. Dwellings are required to have front and rear yards, as well as side setbacks. Zero side lots (zero lot lines) may be allowed where they can be visually integrated into the existing neighborhood context. In some instances, duplexes, triplexes, fourplexes, smaller scale apartment buildings, small commercial spaces; and public facilities such as schools, religious institutions, parks, and other community facilities appropriate within a residential neighborhood are permitted within the R-MH designation. The maximum permitted residential density in the R-MH designation is 25 dwelling units per acre.

There is no specific plan or planned development applicable to the Project.

3. The subject parcel is physically suitable for the type of land use being proposed.

Facts in support: The subject parcels are physically suitable for the subdivision in that they do not contain any environmentally sensitive areas that would be impacted by the proposed development. Existing utility infrastructure including water, sewer, storm drain, and cable are available to serve the project site, and the site has access to existing roadway infrastructure to serve the project. The project proposes to install new interior public streets within the subdivision that have been designed to accommodate the anticipated vehicle and pedestrian traffic and to accommodate emergency vehicle access and fire apparatus.

4. The proposed use is compatible with existing and permissible land uses within the zoning district and the general area in which the proposed use is to be located which

may include but not be limited to size, intensity, hours of operation, number of employees, or the nature of the operation.

Facts in support: The proposed small lot development will feature a residential density compatible with surrounding residential development adjacent to the project site. The proposed detached, single-unit development is consistent with the residential development within the nearby vicinity and will have comparable activity and intensity as the existing surrounding residential development.

5. **The physical location or placement of the use on the site is compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood.**

Facts in support: The proposed layout of the 130 single-family dwellings is compatible with and will not adversely affect the livability of abutting properties and the surrounding neighborhood. The proposed subdivision will have independent access onto Rollingwood Drive and also features natural buffer areas between existing development to minimize physical impact with surrounding properties.

6. **The proposed use and related project features will not create any nuisances arising from the emission of odor, dust, gas, noise, vibration, smoke, heat or glare at a level exceeding ambient conditions and would not otherwise be detrimental to the public interest, health, safety, or general welfare.**

Facts in support: The proposed single-family dwellings will not generate odors, dust, gas, noise, vibration, smoke, heat, or glare at a level exceeding ambient conditions. As proposed and conditioned, the use will not be detrimental to the public interest, health, safety, or general welfare.

7. **The project has been reviewed in compliance with the California Environmental Quality Act (CEQA), if applicable, and the requirements of this Chapter.**

Facts in support: See Section 3 above.

Section 8. Exception Findings

1. **The exception is necessary due to the physical characteristics of the property and the proposed use or structure or other circumstances, including, but not limited to, topography, noise exposure, irregular property boundaries, or other unusual circumstance.**

Facts in support: The exception is necessary due to the reduced lot width, requiring a reduced primary frontage width for the proposed single-unit dwellings to meet required building setbacks. The proposed parcels do not have alley access at the rear of the parcel and therefore garage space is proposed at the front of each dwelling. Due to the reduced primary frontage width of the dwelling, the width of each of the two-car garages exceeds 50 percent of the primary building frontage. The proposal is appropriate to reduce the demand for street parking where street parking will be limited due to the reduced lot frontage widths and frequency of driveway approaches for each lot.

2. **There are no alternatives to the requested exception that could provide an equivalent level of benefit to the applicant with less potential detriment to surrounding owners and occupants or to the general public.**

Facts in support: There are no alternatives that could provide an equivalent level of benefit to the applicant with less potential detriment to surrounding owners and occupants or to the

general public. Due to the proposed small lot development, reduction in garage size would reduce available off-street parking in a proposed subdivision where public street parking will be limited due to the proposed reduced lot frontages. Additionally, each architectural style incorporates design elements and features that reduce the visual dominance of the two-car garages at the front building elevations. Therefore, the proposed exception will be the least impactful alternative to the project.

3. **The granting of the requested exception will not be detrimental to the health or safety of the public or the occupants of the property or result in a change in land use or density that would be inconsistent with the requirement of the Zoning Code.**

Facts in support: The request to increase the maximum allowed garage width percentage of the primary building façade by 25 percent will not be detrimental to the health and safety of the public as the increase will result in minor aesthetic change to the building while maintaining adequate off-street parking for the proposed residential subdivision. The exception will not result in a change in land use or density that would be inconsistent with the requirements of the Zoning Code.

4. **If the exception requested is to provide reasonable accommodation pursuant to state or federal law, the review authority must also make [additional] findings.**

Facts in support: Not applicable; this request is not for reasonable accommodation.

5. **The project has been reviewed in compliance with the California Environmental Quality Act, if applicable, and the requirements of this chapter.**

Facts in support: See Section 3 above.

Section 9. Decision.

BE IT FURTHER RESOLVED that the Planning Commission hereby approves the Vesting Tentative Map (TM23-0003), Development Review (DVR23-0042), Exception (EXC24-0001), Minor Use Permit (MNP23-0019), Design Review (DR23-0019), and Landscape Review (LR23-0013), based on the Record, and the findings set forth herein, and subject to the conditions of approval set forth in Exhibit A, attached hereto, and the time limitations and indemnity below.

Section 10. Time Limitations, & Indemnity

- a) Developer shall defend, indemnify, and hold harmless the City and its agents, officers, attorneys, and employees from any claim, action, or proceeding brought against the City or its agents, officers, attorneys, or employees to attack, set aside, void, or annul the action(s) at issue herein. This indemnification shall include damages or fees awarded against the City, if any, costs of suit, attorneys' fees, and other costs and expenses incurred in connection with such action whether incurred by the Developer, the City, and/or parties initiating or bringing such action.
- b) Developer shall defend, indemnify, and hold harmless the City and its agents, officers, attorneys, and employees for all costs incurred in additional investigation of or study of, or for supplementing, preparing, redrafting, revising, or amending any document, if made necessary by said legal action and the developer desires to pursue securing such approvals, after initiation of such litigation, which are conditioned on the approval of such documents in a form and under conditions approved by the City Attorney.
- c) In the event that a claim, action, or proceeding described in paragraphs a. or b. above is brought, the City shall promptly notify the developer of the existence of the claim, action, or proceeding, and the City will cooperate fully in the defense of such claim, action, or

proceeding. Nothing herein shall prohibit the City from participating in the defense of any claim, action, or proceeding; the City shall retain the right to: (1) approve the counsel to so defend the City; (ii) approve all significant decisions concerning the manner in which the defense is conducted; and (iii) approve any and all settlements, which approval shall not be unreasonably withheld. The City shall also have the right not to participate in said defense, except that the City agrees to cooperate with the developer in the defense of said claim, action, or proceeding. If the City chooses to have counsel of its own to defend any claim, action, or proceeding where the developer has already retained counsel to defend the City in such matters, the fees and expenses of the counsel selected by the City shall be paid by the City. Notwithstanding the immediately preceding sentence, if the City Attorney's Office participates in the defense, all City Attorney fees and expenses shall be paid by the developer.

- d) The Applicant, property owner and/or any successor(s) in interest, whether in whole or in part, to either of them, indemnifies the City for the City's costs, fees, and damages which the City incurs in enforcing the above indemnification provisions.
- e) Unless a shorter period of time applies, the time within which judicial review of this decision must be sought is governed by California Code of Civil Procedure, Section 1094.6.
- f) The conditions of approval applicable to the Project include certain fees, dedication requirements, reservation requirements, and other exactions. Pursuant to Government Code Section 66020(d)(1), the conditions constitute written notice of a statement of the amount of such fees and a description of dedications, reservations, and other exactions. Developer is hereby further notified that the 90-day approval period in which it may protest these fees, dedications, reservations, and other exactions pursuant to Government Code Section 66020(a) has begun. If you fail to file a protest within this 90-day period complying with all of the requirements of Section 66020, you will be legally barred from later challenging such exactions.

PASSED AND ADOPTED at a regular meeting of the Planning Commission of the City of Vallejo, State of California, on the 6th day of October 2025 by the following vote, to-wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

ERIC BLIND, CHAIRPERSON
City of Vallejo Planning Commission

Attest:

KRISTIN POLLOT, AICP - SECRETARY
City of Vallejo Planning Commission

Exhibits:

- A. Conditions of Approval
- B. General Plan 2040 Policies
- C. Supporting Tables
- D. Addendum to General Plan EIR – Dated September 2025
- E. Vesting Tentative Map – Dated June 2024

CONDITIONS OF APPROVAL
DESIGN REVIEW (DR23-0019)
DEVELOPMENT REVIEW (DVR23-0042)
VESTING TENTATIVE MAP (TM23-0003)
MINOR USE PERMIT (MUP23-0019)
EXCEPTION (EXC24-0001)

201 ROLLINGWOOD DRIVE
(APN: 0072-170-050 & -060)

PERMIT DESCRIPTION: The project consists of a Development Review, Design Review, and Exception for the construction of 130 single-family homes, site improvements, and new landscaping. The project also includes a Minor Use Permit to facilitate a small lot subdivision, and a Vesting Tentative Map for the creation of 140 lots, including 130 for single-family residences and eight for various bioretention basins, and open space on 17.76 acres, located at 201 Rollingwood Drive (APNs: 0072-170-050 & -060).

A. **PLANNING DIVISION**

Staff contact: Robby Thacker, Principal Planner

Robby.thacker@cityofvallejo.net | 707.648.4506

Pre-Building Permit

1. Prior to building permit issuance, Developer shall submit a numbered list to the Planning Division with a written response on how each condition of approval contained in this report will be satisfied. The list should be submitted to the project planner who will coordinate continued development of the project. The approved conditions shall also be included in the permit set after the cover sheet with each condition listed.
2. The project shall implement the following applicable mitigation measures of the 2017 General Plan Environmental Impact Report prior to site disturbance or issuance of a building permit, as required by the adopted Mitigation Monitoring and Reporting Program and as cited in the Addendum:

AQ-2a (Pre-Construction Air Quality Technical Evaluation)

AQ-2b.1 (Compliance with Bay Area Air Quality Management District [BAAQMD] Control Measures)

AQ-2b.2 (Pre-Construction Air Quality Technical Evaluation)

BIO-1 (Pre-Construction Surveys [Plants and Wildlife] and Biological Monitoring)

CUL-2 (Archaeological Resources),

CUL-3 (Paleontological Resources)

Specific actions related to each Mitigation Measure cited above, shall also include the following:

- Project Actions to ensure compliance with BAAQMD construction-related emissions thresholds (implementation of General Plan EIR AQ-2b.1 & AQ-2b.2).
 - i. Applicant shall implement the Basic Best Management Practices (BMPs) for Construction-Related Fugitive Dust Emissions recommended by the BAAQMD in Section 5.2.2 of the BAAQMD 2022 CEQA Guidelines, to the extent practicable.

- ii. Developer shall comply with Sections 2.5.4, 2.5.7, and 2.10 of the 2011 City of Vallejo Standard Specifications which address earthwork operations of material movement, dust, and erosion control measures.
 - iii. Project Developer's contractors shall use off-road diesel construction equipment compliant with U.S. EPA Tier 4 Final non-road engine standards for all applicable equipment. Prior to the commencement of construction activities, the Project contractor shall prepare an equipment list that identifies each piece of off-road equipment to be operated at the Project site by its equipment identification number (EIN) and demonstrate that each piece of equipment meets U.S. EPA Tier 4 Final non-road engine standards. The Project contractor shall make the list available at the construction site, and the list shall be updated when new or replacement construction equipment are brought to the site.
- b. Project Actions for Protection of Nesting Birds (implementation of General Plan EIR BIO-1).
 - i. The Project shall avoid tree and vegetation removal or pruning associated with Project construction ground disturbance and commencement of outdoor project construction activities from February 1 through August 31, the primary local bird nesting season, to the extent feasible. If tree and vegetation removal or pruning associated with Project construction is proposed during the nesting period, within seven days prior to the proposed start of construction activities, a qualified Project biologist shall conduct a nesting bird survey of all potential habitat at the construction site and within 250 feet of the perimeter of the construction site.
 - ii. If any active nests are detected during the pre-construction survey, the qualified Project biologist shall recommend a work-exclusion buffer zone that will be designated around the active nest to allow for the successful fledging of the birds. Typical nest buffers are 100 feet for passerine birds, depending upon the nature of proposed activities and the sensitivity of the identified bird to disturbance, and 150 to 250 feet for raptors. Construction activities shall be avoided or modified within the buffer area until young birds have fledged, which shall be confirmed by the qualified biologist. Buffer sizes may be reduced from the initially established distances following review by the qualified biologist and/or coordination with CDFW.
- c. Project Actions for Protection of Burrowing Owl (implementation of General Plan EIR BIO-1).
 - i. Developer shall contract a qualified biologist to conduct a pre-construction survey for burrowing owls 14 to 30 days prior to construction in accordance with current CDFW protocol (CDFG 2012). The survey shall cover all accessible grassland areas within 500 feet of the area to be disturbed by construction, checking for adult and juvenile burrowing owls and signs of burrowing owl occupation (e.g., whitewash, pellets, bones, or feathers). If no owl sign is found during the pre-construction survey, no further action is required.
 - ii. If owls or owl sign is found, the Project biologist shall coordinate with the City to establish construction exclusion areas around occupied burrows onsite within which no disturbance shall occur. During the non-breeding season (September 1 through January 31), the exclusion area(s) shall extend 160 feet around all occupied burrows. During the breeding season (February 1 through August 31), the exclusion area(s) shall extend 250 feet around all occupied burrows. If burrow avoidance is infeasible, the Project biologist shall consult with CDFW regarding the potential for take of burrowing owl and comply with any Incidental Take Permit issued by CDFW.

- d. Project Actions for Protection of Roosting Bats (implementation of General Plan EIR BIO-1).
 - i. Prior to project construction, Developer shall engage a qualified bat biologist to conduct a pre-construction survey in potential bat habitat in trees to be removed or pruned and structures to be demolished within the work area. Surveys shall be conducted within 1 month prior to construction. If no roosting bats are found, no further action shall be required. If active bat roosts are found, these roosts shall be flagged and avoided with a suitable buffer, determined in coordination with CDFW. Removal or trimming of trees showing evidence of bat hibernation or maternity activity shall occur during the period least likely to affect inactive wintering bats and active bat maternity roosts (i.e., avoid roost disturbance from October 15 to February 15 for winter hibernacula, and April 15 to August 15 for maternity roosts).
 - ii. If a non-maternal roost of bats is found in a tree or structure to be removed or demolished as part of project construction, the individuals shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity. Removal or demolition would occur no sooner than at least two nights after the initial minor site modification (to alter airflow). Departure of the bats from the construction area shall be confirmed with a follow-up survey by a qualified bat biologist prior to start of construction.
 - e. Project actions related to potential archeological and/or paleontological resources (Implementation of General Plan EIR CUL-2 and CUL-3)
 - i. In the event of an unanticipated archeological discovery, Developer shall stop construction and facilitate an immediate evaluation by a qualified archaeologist, and if the find is determined to be a unique archaeological resource or a historical resource, then it must be avoided. If avoidance is not feasible, the resource must be recovered and treated accordingly. Construction would be allowed in other areas while the archaeological mitigation takes place.
 - ii. In the unlikely event that ground disturbing activities identify undiscovered human remains, ground-disturbing activities shall halt until the Solano County coroner can determine whether the remains are subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of death; and the required recommendations concerning the treatment and disposition of the human remains have been made. Aligned with General Plan EIR Mitigation Measure CUL-3 (Paleontological Resources), pursuant to California Health and Safety Code Section 7050.5, the coroner shall make a determination within 48 hours of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to their authority and recognizes or has reason to believe that they are those of a Native American, the coroner shall contact the Native American Heritage Commission within 24 hours.
- 2. Prior to building permit issuance, Developer shall obtain a Temporary Use Permit from the Planning Division for any temporary office or construction trailer, as necessary.
 - 3. Prior to building permit issuance, Developer shall obtain a Temporary Use Permit from the Planning Division for any subdivision signs during the time period of subdivision sales.

4. Prior to building permit issuance, Developer shall submit construction-level landscaping plans prepared by a registered landscape architect as part of the building plan set for review and approval. Landscape plans shall comply with Chapter 16.504 (VMC) and substantially comply with the landscape plans in the approved entitlements.

During Construction

5. Construction activities shall be managed in compliance with the following requirements, as applicable:
 - a. Site Watering. During the construction of a project, all portions of the site shall be watered as necessary to reduce emissions of dust and other particulate matter, and all stockpiles shall be covered.
 - b. Maintenance. Streets and sidewalks shall be made dirt free at the completion of construction.
 - c. Noise. All construction and transport equipment shall be muffled in accordance with state and federal laws.
 - d. Emissions. Construction and transport equipment shall be operated so as to minimize exhaust emissions. During construction, trucks and equipment should be running only when necessary.
 - e. Hours of Operation. Grading and pile driving operations within ¼ mile of residential units shall be limited to between 8:00 am and 5:00 p.m. on weekdays pursuant to Subsection 16.502.03.E.
 - f. Water Run-off. All water run-off from construction sites shall be controlled. During construction, trucks and equipment should be running only when necessary, and shall comply with Chapter 12.41 of the Vallejo Municipal Code.
6. No person shall make, or cause to suffer, or permit to be made upon any public property, public right-of-way or private property, any excessive noise, annoying noise, amplified sound or vibrations that are physically annoying to reasonable persons of normal sensitivity or that are so harsh or so prolonged or unnatural or unusual in their use, time or place as to cause or contribute to the unnecessary and unreasonable discomfort of any persons of normal sensitivity located at the lot line of the property from which these noises emanate or that interfere with the peace and comfort of residents or their guests, or the operators or customers in places of business in the vicinity, or that may detrimentally or adversely affect such residences or places of business. (VMC Section 16.502.09 (C))
7. Construction, demolition, and related loading/unloading activities that may generate noise shall be limited to the following: 7 a.m. and 6 p.m. in Monday- Friday, Saturday 9 am- 6 pm and Sundays and holidays not allowed. (VMC Section 16.502.09 (D))
8. Fencing for construction sites shall not be installed until a building permit or grading permit has been issued and shall be removed prior to final inspection. In the event that the building permits expire before the construction is completed, the Director may issue a temporary use permit pursuant to Chapter 16.339, Temporary Uses, to allow the fencing to remain for a longer period of time. (VMC Section 16.505.08 (B))

Landscaping

9. Prior to operation/final building inspection, the landscape architect shall provide a complete Certificate of Completion and Certificate of Installation According to the Landscape Documentation

in accordance with VMC Section 16.504.09 - Water Efficient Landscape Requirements. The documentation shall include the following:

- a. Certificate of Completion (VMC Section 16.504.09 (G.9))
 - b. Irrigation Scheduling (VMC Section 16.504.09 (G.9.c))
 - c. Schedule of Landscape and Irrigation Maintenance (VMC Section 16.504.09 (G.9.d))
 - d. Landscape Irrigation Audit Report (VMC 16.504.09 (G.9.e))
 - e. Soil Analysis Report (VMC Section 16.504.09 (G.9.f))
10. Prior to occupancy/final building inspection, Developer shall install landscaping and irrigation per approved plans. The landscape architect shall verify in writing that the landscaping and irrigation have been installed in accordance with the approved landscape plans with respect to size, health, number and species of plants, and the overall design concept.
11. Maintenance Required. All landscaping shall be permanently maintained in a healthy and thriving condition at all times, in compliance with the approved landscape plan. Irrigation systems and their components shall be maintained in a fully functional manner consistent with the original approved design or upgraded to reflect current best practices for water efficiency. Regular maintenance shall include:
- a. Adjusting, checking, and repairing irrigation equipment; resetting automatic controllers; aerating and de-thatching turf areas; adding/replenishing fertilizer, mulch, soil amendments; insect control; the replacement of dead or diseased plants; pruning; watering; and weeding all landscaped areas.
 - b. The trimming of vegetation as necessary to maintain the effective functioning of solar energy facilities and passive solar design features installed both on site and on adjacent properties.
 - c. The trimming of vegetation as necessary to keep pedestrian and bicycle paths clear. (VMC Section 16.504.08 (A))
12. Litter shall be removed from all landscaped areas in a timely fashion. (VMC Section 16.504.08 (B))
13. Turf areas shall be mowed on a regular basis and be kept green. Accumulation of leaves, twigs, bark, and other similar materials shall be removed on a regular basis. Planting areas shall be kept free of weeds at all times. (VMC Section 16.504.08 (C))
14. Landscaping maintenance shall include:
- d. Pruning, cultivating, weeding, fertilizing, replacement of plants, and watering on a regular basis.
 - e. Pruning or removal of overgrown vegetation, cultivated or uncultivated, that may harbor rats, vermin, or other nuisances, or otherwise be detrimental to neighboring properties.
 - f. The removal of dead, decayed, diseased, or hazardous trees, weeds and debris that create an unsightly appearance and may be dangerous to public safety and welfare or detrimental to neighboring properties or property values. Compliance shall be by removal, replacement, or maintenance.
 - g. Landscaping (trees, shrubs, ground cover, turf, etc.) which, due to accident, damage, disease, lack of maintenance, or other cause, fails to show a healthy appearance and growth, shall be replaced. Replacement plants shall conform to all standards that govern the original planting installation, approved landscaping plan, or as approved by the Director. (VMC Section 16.504.08 (D))

Fences and Screening

15. Prior to occupancy/final building inspection, Developer shall have installed all fencing per approved plans.
16. Maintenance. Fencing on site shall be continuously maintained with no sign of rust or disrepair. Graffiti shall be removed within forty-eight hours. (VMC Section 16.505.02 (B)).
17. General Requirements. All exterior mechanical equipment, whether on a roof, on the side of a structure, or located on the ground, shall be screened from public view. Exterior mechanical equipment to be screened includes, without limitation, heating, ventilation, air conditioning, refrigeration equipment, plumbing lines, ductwork, transformers, smoke exhaust fans, water meters, backflow preventers, service entry section, back-up and emergency generators, and similar utility devices.
 - a. Screening shall be architecturally integrated into the main structure with regard to materials, color, shape, and size to appear as an integral part of the building or structure.
 - b. Equipment shall be screened on all sides, and screening materials shall be opaque.
 - c. When screening with plants, evergreen types of vegetation shall be planted and maintained. Plant material sizes and types shall be selected and installed so that, at the time of building occupancy, such plants effectively screen their respective equipment.
 - d. The use of wood expanded metal lath, and chain link for the purpose of screening is prohibited. (VMC Section 16.505.10)

Lighting

18. Lighting shall be designed, located, and installed to be directed downward or toward structures, be shielded or fully shielded, and shall be well-maintained in order to prevent glare, light trespass (unwanted light on adjacent lots and public rights-of-way), and light pollution to the maximum extent feasible. No permanently installed lighting shall blink, flash, or be of unusually high intensity or brightness, as determined by the Director. (VMC Section 16.506.04 (B)) Time clocks or photo-sensor systems may be required as a condition of approval of a discretionary permit. (VMC Section 16.506.04 (D))

General Requirements

19. Pursuant to California Government Code Section 65589.5(o)(1), the “ordinances, policies, and standards” applicable to the Project are those adopted and in effect as of June 21, 2023.
20. Pursuant to California Government Code Section 65589.5(o)(2)(A), the Project is subject to the fees and charges set forth in the City’s adopted fee schedule for Fiscal Year 2023-2024 automatically adjusted by , which fees are subject to automatic annual adjustment.
21. Construction shall start within 2.5 years (30 months) of the date the Project received final approval; otherwise, the vested rights in paragraphs 21 and 22 above shall expire.
22. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in VMC Chapter 16.504. Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme. Signage shall include information about the site water use as designed per this chapter; specify who designed and installed the water efficient landscape; and demonstrate low water use approaches to landscaping such as using native plants, graywater systems, and rainwater catchment systems.

23. Developer shall contact local postal authorities to obtain the requirements for mail facilities for the project. The design and location of mail receptacles shall be reviewed and approved by the Planning Division and shown on the Utility, Landscape, and Building Plans, prior to issuance of Building Permits. Mail facilities shall be installed prior to occupancy approval.
24. Developer shall submit a written request for new street names with a site plan showing their location to the Planning Division for review and approval, at the time of submittal of Improvement Plans and Final Map. Include a list of alternatives for each name, as some names may not be acceptable.
25. Pursuant to VMC Section 15.08.110, the approval of the Tentative Map shall automatically expire 36 months (October 6, 2028) after its approval.
26. The entitlement of Development Review, Design Review, Minor Use Permit and Exception shall automatically expire within three years of the effective date of this approval, on October 6, 2028, unless the use is exercised or extended (VMC Section 16.602.12 (A)). Issuance of a building permit shall constitute exercise of rights; provided, however, that, unless otherwise specified as a condition of project approval, the permit shall expire if:
 - a. The building permit expires.
 - b. Final inspection is not completed, or certificate of occupancy issued within the time specified as a condition of project approval.
 - c. The rights granted under the permit are not exercised within one year following the earliest to occur of the following: issuance of a certificate of occupancy; or if no certificate of occupancy is required, the last required final inspection for the new construction. (VMC Section 16.602.11 (B))
27. The Director may approve a one-year extension of any permit or approval granted for a residential or non-residential project under the Zoning Code upon receipt of a written application and fees received fifteen calendar days before the expiration date with the required fee prior to expiration of the permit. (VMC Section 16.602.11 (C.1))
28. For new developments, utilities including, but not limited to, all electrical, telephone, cable television, fiber-optic cable, gas, water, sewer, irrigation/recycled water, and similar distribution lines providing direct service to a project shall be installed underground within the site. This requirement may be waived by the Director upon determining that underground installation is infeasible, or the electrical line is otherwise exempt from an under-grounding requirement. (VMC Section 16.501.10)
29. Developer shall obtain an inspection from the Planning Division prior to occupancy/final building inspection. All inspections require a minimum of 24-hour notice. Occupancy permits shall not be granted until all construction and landscaping is completed and finalized in accordance with the approved plans and required conditions of approval or a bond has been posted to cover all costs of the unfinished work as agreed to by the Planning and Development Services Director.
30. Developer shall indemnify, hold harmless, and defend City, its officers, officials, directors, employees, agents, volunteers and affiliates and each of them from any and all claims, demands, causes of action, damages, costs, expenses, actual attorney's fees, applicant's fees, expert fees, losses or liability, in law or in equity, of every kind and nature whatsoever arising out of or in connection with Developer's operations, or any subcontractor's operations, to be performed under this agreement for Developer's or subcontractor's tort negligence including active or passive, or strict negligence, including but not limited to personal injury including, but not limited to bodily injury, emotional injury, sickness or disease, or death to persons and/or damage to property of anyone, including loss of use thereof, caused or alleged to be caused by any act or omission of Applicant, or any subcontractor, or anyone directly or indirectly employed by any of them or anyone for the full period of time allowed by the law, regardless to any limitation by insurance, with the exception

of the sole negligence or willful misconduct of the City. No modification of the project, any application, permit, certification, condition, environmental determination, other approval, change in applicable laws and regulations, or change in processing methods shall alter the Applicant's indemnity obligation.

B. BUILDING DIVISION

*Staff Contact: Bill Collins, CBO, CASp, CFM - Chief Building Official
bill.collins@cityofvallejo.net | 707.648.4387*

1. Plans and permits required for Building, mechanical, plumbing, and electrical work per California Code of Regulations, Title 24, and applicable City Ordinance in effect at the time of completed Building Permit application date and required fees paid at time of application.
2. 2022 California Code of Regulations applies if permit application(s) are received before the end of 2025.
3. Soils Report shall be required for foundation plan design.
4. A separate permit shall be required for each structure.

C. PUBLIC WORKS

*Staff Contact: Bryan Little, P.E., Associate Civil Engineer
Bryan.Little@cityofvallejo.net | 707.648.5306*

1. The Developer or any successor in interest shall design and construct frontage improvements along Rollingwood Drive, including but not limited to: curb, gutter, sidewalk, streetlighting, and pavement surface improvements. The location of the curbline and sidewalk shall match the location and width of the existing improvements on the neighboring property.
2. Right-of-Way shall be dedicated to the City of Vallejo along Rollingwood Drive as needed for the proposed widening.
3. The existing curb ramp located along the northerly project boundary along Rollingwood Drive shall be removed and replaced with city standard curb, gutter and sidewalk.
4. The improvements along Rollingwood Drive shall include the undergrounding of the existing overhead lines across the entire project frontage.
5. All interior streets shall be designed and constructed to City Standards including pavement width and street section. A reduction in curb-to-curb width to 28 feet will be allowed for the short sections of roadway on Streets A & D as shown on the Vesting Tentative Map.
6. Grading and drainage shall be designed so that surplus drainage is directed overland so as not to jeopardize existing or proposed buildings with flooding. All drainage shall be directed to Rollingwood Drive, the proposed Detention Basin, or the proposed Bio-retention Basin.
7. Onsite Stormwater Detention is proposed for the project site. The project shall prepare a Hydrology & Hydraulic Study which shall be reviewed and approved by the Vallejo Flood and Wastewater District and/or the City of Vallejo Public Works Department.
8. The project shall comply with the requirements of the most current National Pollutant Discharge Elimination System (NPDES) permit issued to the City of Vallejo, which incorporates Low Impact Development (LID) Best Management Practices in the overall design to address the issue of ongoing post-construction stormwater quality for the project site. Stormwater Quality shall be designed for the entirety of the site, including the widened portion of Rollingwood Drive.
9. Prior to beginning construction of public improvements, Developer shall enter into a Subdivision Improvement Agreement with the City. The Developer shall furnish the necessary insurance, bonds and pay all fees associated with the Agreement.
10. All public improvements shall be designed and constructed to current City of Vallejo Design Standards, unless otherwise noted within these conditions of approval.

11. Existing public facilities damaged during the course of construction shall be repaired by the Developer, at his sole expense, to the satisfaction of the City Engineer.
12. The developer shall retain a registered Geotechnical Engineer to conduct a Geotechnical Investigation of the project area. Two copies of the project Geotechnical Report shall be submitted to the Public Works Department prior to submittal of Construction Plans. The Geotechnical Report shall include details and recommendations regarding the following:
 - Geologic Hazards
 - Grading Limitations and Requirements
 - Foundation Design
 - Settlement
 - Retaining Wall Design as Required
13. Slope grading shall comply with the Geotechnical Report. Slopes steeper than 3H:1V shall not be allowed in the public right-of-way. Slopes steeper than 2H:1V shall not be allowed on-site.
14. A grading plan shall be prepared by the Developer's Civil Engineer and approved by the City Engineer. The following information shall be shown on the Grading Plan:
 - Geologic contours, landscaping, fences, buildings, or other improvements
 - Existing trees to be saved in place or removed
 - Furnish all necessary details to clearly convey recommendations outlined in the project geotechnical investigation
 - Cut/Fill interfaces and limits of grading
 - Limits of existing geologic hazards as identified by the Geotech. Engineer
 - Lot boundaries and road rights-of-way
 - Proposed pad elevations, finished contours and lot grading details
 - Top of curb elevations
 - Perimeter cross-sections along all sides of the project to show the proposed project's interface with abutting properties and streets
 - Plan view of proposed drainage facilities including storm drains, catch basins, manholes and underdrains
 - Parking lot surface drainage, pavement grades, ridge lines, etc.
15. The project Engineer shall coordinate grading design closely with the project Geotechnical Engineer. Specifically, the Geotechnical Engineer shall be consulted to evaluate and address issues related to:
 - Geologic Hazards
 - Retaining Wall Design Parameters
 - Parking Lot Pavement Sections
16. Retaining walls over 18 inches tall shall be concrete or masonry. Retaining walls over four feet tall shall be designed by a Civil or Structural Engineer.
17. Developer shall prepare a Storm Water Control Plan and Report for the project, consistent with the City of Vallejo requirements. Please refer to the Stormwater C.3 Guidebook prepared by the Contra Costa Clean Water Program.
18. All stormwater treatment measures shall be adequately operated and maintained. Prior to the issuance of the first building permit, the property owner shall enter into a Stormwater Treatment Measures Maintenance Agreement with the City. This agreement is included in the document entitled "Storm Water Requirements for Development Projects- Packet for Project Developers."
19. Developer or any successor in interest shall obtain all necessary permits for storm water discharges, including but not limited to the State Water Resources Control Board Construction General Permit. Developers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, shall obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (State Water Resources Control Board Construction General Permit, 99-08-DWQ). Construction activity subject to this permit includes clearing, grading and disturbances to the

- ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.
20. An erosion and sedimentation control plan shall be included and prepared by the Developer's Civil Engineer. The erosion control plan shall include protection measures such as: sedimentation basins, check dams, straw wattles and hydroseeding details.
 21. Prior to the approval of the construction drawings, Developer shall be responsible for developing and implementing a Storm Water Pollution Prevention Plan which shall be reviewed and approved by the City of Vallejo.
 22. The project architect and engineer shall coordinate design closely with the project landscape designer. Specifically, they shall consult the landscape designer to evaluate and address issues related to:
 - Fencing/wall layout and details
 - Locations and sizes for irrigation services
 - Sight distance constraints for fencing and landscaping
 - Depth of cover and tree setbacks over water, sewer and storm drain lines in landscape areas
 23. Landscaping plans shall be prepared by a registered Landscape Architect and City-maintained landscaping shall be designed per City standards. Landscaping and irrigation plans shall be designed to comply with the City's Water Efficient Landscaping Ordinance. Use of turf and other water intensive landscaping shall be minimized.
 24. Construction shall not commence until a Final Subdivision Map has been approved by the City and recorded. Developer shall furnish to the City of Vallejo appropriate fees to garner a mylar copy of the County-recorded map.
 25. A title report, current within the past 90 days, shall be submitted with the subdivision map. The title report shall include the entire legal boundary of the property being subdivided.
 26. Closure calculations shall be submitted with the initial map. All calculated points within the map shall be based upon one common set of coordinates. All information shown on the map shall be directly verifiable by information shown on the closure calculation printout. The point of beginning shall be clearly identified and all lot acreage shall be shown and verifiable from information shown on the closure calculation printout. Additionally, the square footage of each lot shall be shown on the subdivision map. Appropriate easements shall be provided for public facilities located on private property.
 27. A 6-foot wide Public Utility Easement shall be dedicated along both sides of all proposed or widened streets, with 10-foot wide pop-outs as required for transformers and other facilities, unless otherwise approved by the City Engineer.
 28. The subdivision map shall be prepared in accordance with the State Map Act and all applicable local ordinances.
 29. Developer shall submit a final Vesting Tentative Map (VTM) that incorporates all modifications required by the final approval authority and shall include all final conditions of approval for verification and sign-off. The VTM shall also include signature blocks for the Planning Division, City Attorney, City Engineer, Water Department, Vallejo Flood and Wastewater District, and Director of Public Works. Pursuant to the Subdivision Map Act (Government Code §§ 66473, 66474.1, and 66496), the final VTM incorporating all required conditions shall be submitted to the City for its review and approval prior to the filing of the Final Map. The Developer shall complete this submittal within thirty (30) days of Planning Commission approval of the project. Compliance with these conditions is a prerequisite to recordation of the Final Map as required by Government Code § 66499.35. Failure to submit the final VTM with all required conditions and signatures within the stated timeframe may delay acceptance and processing of the Final Map. Developer shall submit and track compliance with all conditions of approval prior to final map recordation, and prior to issuance of the first building permit.
 30. Developer shall submit a Mylar copy and CAD file of the Final Map prior to City Council approval of the Final Map.

31. Approved street names shall be shown on the Final Map prior to recordation of the Final Map.
32. A Homeowners' Association (HOA) shall be formed and shall be responsible in perpetuity, for the ownership, maintenance, repair, restoration, replacement, and management of:
 - a. All parcels held in common, open space and common area improvements including but not limited to: bioretention basins, stormwater detention areas, and open space parcel(s).
33. Prior to approval of the Final Map, the Developer shall dedicate to the City, in a form acceptable to the City Engineer and City Attorney, a permanent public storm drain easement over all on-site stormwater management facilities (including but not limited to detention basins, bio-retention basins, storm drain inlets, private storm drain lines and conveyance swales) that serve to convey, detain, or treat public stormwater runoff generated from the subdivision or any upstream contributing area.

The easement shall include the right of public drainage conveyance and access for emergency inspection and maintenance purposes. Ownership and primary maintenance responsibilities of the private stormwater facilities shall remain with the property owner, homeowners' association (HOA), or successor entity.

- a. The easement and associated maintenance agreement shall:
 - b. Grant the City perpetual rights to convey stormwater through the private stormwater facilities to protect downstream properties and ensure system function.
 - c. Assign primary maintenance responsibility to the private property owner, HOA, or successor, including obligations for repair, sediment removal, vegetation management, and compliance with all applicable Vallejo Flood and Wastewater District Permit requirements.
 - d. Include indemnification and hold harmless provisions protecting the City from liability associated with ownership, operation, or maintenance of the private stormwater facilities.
 - e. Be recorded with the County Recorder concurrent with the Final Map to ensure enforceability and notification to future property owners.
34. The Final Map shall not be approved until the stormwater easement dedication and maintenance agreement have been reviewed and accepted by the City Engineer and City Attorney.

D. Fire Prevention

Staff Contact: Moises Zarate, Fire Inspector

Moises.Zarate@cityofvallejo.net | 707.648.4049

1. Prior to final inspection, in accordance with the 2022 California Fire Code, approved address numbers shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Said numbers shall clearly contrast with their background. The characters shall be a minimum of 4" high with a 1/2" stroke. The size of the building and distance or location of the address numbers from the roadway may necessitate larger numbers.
2. A fire apparatus turn-a-round is required when buildings are more than 150 feet from a public roadway.
3. The angles of approach and departure for fire apparatus access roads shall be within the limits established by the fire code official based on the fire department's apparatus.
4. Where required by the fire code official, approved signs or other approved notices or markings that include the words "NO PARKING – FIRE LANE" shall be provided for fire apparatus access roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be

maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

5. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Sections 503.2.1 and 503.2.2 shall be maintained at all times.
6. Traffic calming devices shall be prohibited unless approved by the fire code official.
7. All access roads shall be installed and maintained serviceable prior to and during combustible construction.
8. Fire flow shall be 1500 GPM for 2 hours. 2022 CFC Appendix BB. Please submit a flow test from the Vallejo Water Division.
9. Maintain the width of the exit system; tables, chairs, merchandise storage systems and other devices shall not obstruct the means of egress along the path of exit travel based on the cumulative occupant load served. Maintain clear access to all exits.
10. All compressed gas cylinders shall be adequately secured to prevent falling or being knocked over. Fasteners used to secure cylinders shall be of non-combustible material. This requirement shall be reviewed and approved by the Fire Prevention Division prior to final inspection sign-off.
11. Carbon dioxide enrichment systems that exceed 100 pounds require a separate permit from the Fire Department. CFC 5307.4
12. If the proposed trash enclosure is within 5 feet of the existing building, fire sprinkler coverage must be provided over the dumpster area.
13. All buildings, facilities, and developments shall be accessible to Fire Department Apparatus by way of approved access roadways.
14. Access roads shall be designed and maintained to support the imposed loads of fire apparatus weighing 70,000 lbs. with an all-weather driving surface.
15. Access roads shall have an unobstructed width of not less than 20 feet with a maximum grade of 15 percent. Access roads shall have a minimum of 13'6" of vertical clearance, including trees, wires, and overhead signs. Speed bumps or other vertical traffic calming devices are prohibited on routes of fire access. Turning radius of all fire access roadways must be approved prior to Building Permit issuance.
16. All access roads shall be installed and maintained serviceable prior to and during combustible construction.
17. Access roads that are fire lanes shall either be posted with permanent all-weather signs constructed and installed in accordance with the Fire Department Fire Lane Marking Standard FP-2a OR shall have curbs painted red and a sign posted at each entrance in accordance with standard FP-2b. Contact the Fire Prevention Bureau for further information and design templates. Location of such area's shall be determined prior to final inspection.
18. An NFPA 13 automatic fire sprinkler systems is required for this building please submit 2 sets of plans, and hydraulic calculations, to the Fire Marshal's Office and obtain permit prior to installation. Please note the density of the system must be compatible with the occupancy classification. Permit fee # 15 is \$569 each system plus \$6 per sprinkler head.

19. Provide smoke detectors in all sleeping rooms and common hallways. Detectors shall be hardwired with battery backup. Electrical circuits supplying detectors shall be separate dedicated lines with no other devices on the circuits.
20. All roof material shall be rated class "C" or better.
21. A final inspection from the Fire Prevention Division is required prior to permitting sign-off.

E. **Vallejo Flood and Wastewater**

Staff Contact: David Espinoza, P.E., Senior Engineer
despinoza@vallejowastewater.org | 707.652.7809

PROJECT-SPECIFIC CONDITIONS OF APPROVAL

1. Verify with the City whether adjacent properties will require extension of sewer or drainage to serve future development. Consideration for drainage and/or sewer, for adjacent property's future development, if known, shall be included in technical studies.

Storm Drainage

1. The HOA shall be responsible for owning and maintaining the following storm drain infrastructure:
 - a. All bioretention and detention basins, and
 - b. 30-inch diameter pipe from A Street to the basin, and
 - c. 12-inch diameter pipe from bioretention basin to the point of connection with the existing VFWD system, and
 - d. Reverse thru-curb drains along Rollingwood Drive from gutter pan back to the private bioretention areas.
 - e. Storm drainpipe exiting the bioretention areas to the right of way line.

VFWD will require a maintenance manual and agreement that documents ownership and maintenance obligations by the HOA.

2. Install new storm drain maintenance holes at and within the right-of-way line, on each of the three 15-inch diameter pipes along Rollingwood Drive, behind sidewalk. The maintenance holes will begin VFWD's point of responsibility for those systems.
3. Install a maintenance hole on 30-inch storm drainpipe delineating change in ownership from VFWD/HOA.
4. The new 12-inch diameter pipe in Parcel D shall meet VFWD standards.
5. The maintenance access shall be paved per VFWD standards to access the sewer main.
6. Provide design details for the bioretention and detention ponds, which shall comply with all aspects of the latest VFWD Engineering Standards and Details, unless otherwise approved by VFWD.
7. The two existing VFWD storm drain inlets located on VTM Parcel D shall be replaced to

VFWD standards. The existing pipe does not require replacement.

8. The off-site adjacent parcel (APN 0072-170-200), owned by the City, historically drains across project property. Coordinate with City to re-route flows around the subdivision.
9. SD Laterals crossing streets shall be at a 90-deg angle, in accordance with VFWD Standards.
10. Proposed storm drainpipes connecting to the existing VFWD storm drainpipe on Rollingwood Drive shall connect to an existing structure or install a new structure.
11. Drainage flows are not allowed to enter neighboring adjacent parcels, except along the west side of the detention pond, which is the 100-year overland release location.

Sanitary Sewer

1. Off-site sewer improvements are required and have been identified on the VTM dated June 2024 and shown on the Off-Site Sewer Plan. The plan has not been approved by VFWD. Submit a separate complete set of improvement plans and support documentation, for proposed off-site sanitary sewage work, to VFWD for review and approval.
2. If any houses connect to VFWD's sewer main along Rollingwood Drive, the entire segment of 6-inch sewer main, from Lot 109 (rodding inlet) to Pope Street (SSMH), shall be replaced and upsized to 8-inch sewer main in accordance with VFWD Standards. The rodding inlet shall be replaced with a VFWD standard maintenance hole.
3. The applicant shall design and construct the upsizing of the 6" sewer main other improvements and shall receive a Fee Credit toward their Sewer Connection Fee, up to 50% of the final cost for the design and construction. The final cost shall be provided by the applicant and approved by VFWD.
4. Along Rollingwood Drive, upsize the existing 6-inch sewer main from Pope Drive to the end of the system, reconnect existing sewer laterals, and replace the existing rodding inlet with a standard maintenance hole. A fee credit will be provided towards the sewer capacity charges up to 50% of the construction costs.
5. Sanitary sewer laterals shall be installed away from driveways and in compliance with VFWD standards.

Onsite Utilities/Easements:

1. Dedicate a 20-foot-wide easement to VFWD from Street A, across Parcel B and D, to the point of connection to the existing VFWD storm drain system.
2. Provide originals of Church and Hargus easements. Provide a copy of any proposed utility easements, for review. Coordinate all actions on VFWD easements, with the VFWD. VFWD will record all easements with original wet-signed/stamped documents.
3. Extend the off-site sewer in Hargus directly into and aligned with the existing sewer with a new SSMH at the point of connection.

4. No trees or other permanent structures will be allowed within a VFWD easement area without prior written approval.

GENERAL CONDITIONS OF APPROVAL

1. The Applicant shall size the storm drain lines to convey the peak 15-year, 24-hour design storm flows with the hydraulic grade line (HGL) at least 1.0 feet below the gutter flow lines and maintenance hole rims.
2. Prior to building permit issuance, a VFWD Connection Permit is required. The Applicant shall pay all applicable review, inspection, processing, and capacity fees prior to issuance of any permit.
3. The Applicant shall design building pads at least 1.0 feet above the 100-year, 24-hour design storm water surface elevations (WSEs)
4. The Applicant shall minimize the storm drainage system operations and maintenance (O&M) efforts and costs to the HOA.
5. All public improvements shall be designed and constructed to current VFWD Standards. If Conditions of Approval from VFWD, City of Vallejo or County of Solano call for differing standards of development, the higher standard shall apply.
6. Submit complete improvement plans and support documentation, for proposed sanitary sewage and storm drainage work, to VFWD for review and approval. VFWD and the City shall review the design of all improvements during the plan check process, and those plans shall be revised, as needed, at the discretion of VFWD and the City.
7. Provide design details for the connection points to existing, storm drain and sewer, pipes and maintenance holes.
8. Verify adequate vertical separation between sewer and storm drain.
9. All sanitary sewer and storm drainage facilities shall be clearly labeled as either private or public on improvement plans to distinguish ownership of the facilities.
10. Provide a standard VFWD cleanout at the right-of-way/easement line for each lot per VFWD standards and a two-way cleanout at the building per the U.P.C. and VFWD standards.
11. The cover of the drainage report shall include a statement signed by the Applicant's engineer stating, "I am familiar with the Engineering Design Standards and Policies of the VFWD. These hydrology/hydraulic calculations have been prepared by me, or under my direction, and have been prepared in accordance with the said Standards and Policies of VFWD. These calculations verify that a storm drain collection system, designed and constructed in accordance with these calculations, will meet the requirements of said Standards and Policies of VFWD.
12. The 100-year storm overland release shall be shown on the grading plans. Provide a secondary (surface flow) drainage system to handle flows more than the capacity of the primary system (piped or channelized). The proposed building locations should avoid this secondary path. Also, determine the 100-year storm tributary area. This may differ from the 15-year tributary area.
13. Prior to building permit issuance, the applicant shall submit grading and erosion control plans to VFWD for review. Do not block drainage from adjacent lands. All storm drainage shall be collected onsite and conveyed underground to the storm drain system.
14. Prior to building permit issuance, the Applicant shall test and repair sanitary sewer laterals per Resolution No. 89-4210.
15. The project shall comply with the requirements of the most current National Pollutant Discharge Elimination System (NPDES) permit issued to the City of Vallejo, which incorporates Low Impact Development (LID) Best Management Practices in the overall design to address the issue of ongoing post-construction stormwater quality for the project site.
16. Bioretention/water quality basins shall be owned, operated, and maintained by the HOA.
17. VFWD requires a maintenance manual/agreement that describes what is needed to maintain the improvements and who will do it. When parcels are sold to new ownership, post construction storm water pollution prevention guidelines shall be given to new owners. These guidelines shall be submitted with the improvement plans for review and acceptance for distribution as part of the

improvement process.

18. "No dumping drains to bay" markings per VFWD's requirements shall be installed at each new storm water drain inlet.
19. Prior to approval of the improvement plans, or the issuance of a City of Vallejo grading permit, the Applicant or his contractor shall obtain all necessary permits from the VFWD for work on the public and private storm drainage and sanitary sewer systems.
20. All storm drainage and sanitary sewer outside of building footprints shall be inspected by VFWD. The applicant's engineer shall provide construction cost estimates for both sewer and storm drain improvements, which will be the basis for calculating the inspection fee, which shall be paid prior to VFWD approval of the improvement plans.
21. In the event any claim, action or proceeding is commenced naming VFWD or its agents, officers, and employees as defendant, respondent or cross defendant arising or alleged to arise from VFWD's approval of the project, the project Applicant shall defend, indemnify, and hold harmless VFWD or its agents, officers and employees, from liability, damages, penalties, costs or expense in any such claim, action, or proceeding to attach, set aside, void, or annul an approval of the City of Vallejo, or any advisory agency to the City. The applicant shall defend such action at Applicant's sole cost and expense which includes court costs and attorney fees. VFWD shall promptly notify the applicant of any such claim, action, or proceeding and shall cooperate fully in the defense. Nothing in this condition shall be construed to prohibit the VFWD from participating in the defense of any claim, action, or proceeding, if VFWD bears its own attorney fees and cost, and defends the action in good faith. Applicants shall not be required to pay or perform any settlement unless the applicant in good faith approves the settlement, and the settlement imposes no direct or indirect cost on VFWD, or its agents, officers, and employees.
22. Sanitary sewer or storm drains shall not be installed in the rear of any of the lots.
23. VFWD will use a consultant to provide plan review for new development. The applicant shall be responsible for all costs associated with the consultant's review, through the Agreement for Plan Review and Construction Services provisions.
24. The Applicant shall provide VFWD the Final Design Drawings for public sewer and drainage infrastructure, in AutoCAD, prior to issuance of permit to work on sewer and storm related infrastructure.
25. If relocation of existing VFWD facilities is deemed necessary, it shall be performed by the Applicant who will also be responsible for bearing all expenses associated with this condition.
26. Applicants shall pay appropriate reimbursements for any benefiting improvements installed by others in the amount and at the time specified by existing reimbursement agreements.
27. Applicant shall contact VFWD at least 72 hours prior to beginning construction, for a pre-construction meeting.
28. Existing public and private VFWD facilities damaged during construction shall be repaired by the Applicant, at his/her sole expense, to the satisfaction of VFWD.
29. The conditions set forth in this document are not all inclusive. The Applicant shall thoroughly review all VFWD, City, State, and Federal planning documents associated with this map and comply with all regulations, mitigations, and conditions set forth.

F. Water Department

Staff Contact: John Pena, Assistant Engineer

John.pena@cityofvallejo.net | 707.645.2610

1. All code requirements as stated in Title 11 of the Vallejo Municipal Code and Vallejo Standard Specifications and Standard Drawings adopted in 2011 (VSSSD) that apply to this project shall be conformed to.
2. As of January 1, 2018, all units in multi-family, commercial, or combination thereof, buildings shall be individually metered (if existing plumbing allows or is re-configured) by the City, additional meters at the owner/applicant's expense; or, master metered by the City, and sub-metered by the property owner, with approved/certified meters. Per California Senate Bill 7 (SB7).

3. Prior to occupancy or final building inspection, install water system improvements as required. Backflow device/s where required shall be installed in areas hidden from public view and/or shall be mitigated by landscaping. ESTIMATE OF FEES WILL BE PROVIDED WHEN: Building Plans, Water Meter Data Card and Fire Flow Test results are submitted.
4. Any existing easements on the development property that may require surface restoration during or after any City improvements shall be the responsibility of the property owner. An agreement shall be prepared by the City and shall be executed and recorded so stating the terms of this agreement.
5. No trees deep-rooted plants shall be planted within 10-feet of the City's easement for the water main. The property owners shall be made aware of this restriction and shall be required to sign a deed restriction to this fact.
6. The minimum distance of any permanent structure, including but not limited to buildings, retaining walls, etc., from the centerline of an existing main must be a minimum of 30 feet for the City to access and maintain the water main safely.
7. Any portion of any parcel shall remain easily accessible to City staff for maintenance and repair of any existing main within that parcel. An access agreement shall be prepared by the City and shall be executed and recorded so stating the terms of this agreement.
8. Utilities are not permitted to cross any water mains without the City's prior review and approval.
9. A comprehensive water study (master plan) must be done for the 400-water zone and the water zones fed from the 400-water zone (Kathy Ellen 337, Devlin 262, Burnham 329, Capital 280, Bay Village 292, Maritime Academy 292, and Crystal 400 zones) to determine existing capacities and future demands and required improvements to water mains, pump stations, water reservoirs, etc. The Developer shall prepare this comprehensive water study, including a unit cost benefit calculation, consistent with the existing Water Master Plan and submit it to the Water Department for review and approval. The study shall be prepared by a California Registered Civil Engineer with experience in such a field.
10. The developer shall pay to the city its prorated share of the costs of these improvements including but not limited to, 400 zone master plan preparation costs, right of way costs, planning and engineering costs, construction costs, etc. before the development improvement plans can be approved.
11. The developer's cost for compliance for Conditions 9, 10, and 11 shall be in addition to the costs required to be paid to the Water Department as mentioned in Condition 7 with the one exception that no elevated storage fee shall be charged.
12. The water main in Hargus Ave shall be connected to the proposed 8-inch water main in Street "E" by an 8-inch main and a water facilities easement or PUE shall be granted to the city by the final map with rights of access, with a paved access oad installed 3 inches of AC over 6 inches of $\frac{3}{4}$ " AB.
13. Provide water meter and service sizing calculations according to the most recent California Plumbing Code. Include a water fixture count table on the plan set.

G. **PG&E**

Staff Contact: Alexa Gardea, Land Management

Alexa.gardea@pge.com

1. A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the existing 24" high-pressure gas transmission main located within Rollingwood Drive, along the easterly boundary of the property. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811.
2. To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe. Applicant shall ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas. PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.

EXHIBIT - B

General Plan 2040 Policies and Actions	
Policy NBE-1.8: Urban Forest. Encourage planting of street trees and landscaping to beautify the city, encourage walking and biking and create a stronger sense of identity.	<i>Facts in Support: The project involves the planting of many trees, shrubs, and groundcover plantings contributing to the beautification of Vallejo and the cultivation of an urban forest. The construction of sidewalk improvements within the project would contribute to the pedestrian realm within the subject site.</i>
Policy NBE-2.3: Inviting, Compatible Design. Promote attractive development that is compatible with surrounding uses.	<i>Facts in Support: The project architecture is of a high quality that includes a variety of materials and three different architectural styles. The building height and mass are not out of scale with existing structures located in proximity.</i>
Policy NBE-2.8: Infill Development. Promote infill development targets vacant and underutilized sites for community-desired and enhancing uses that is compatible with surrounding uses.	<i>Facts in Support: The proposed residential project would result in the development of additional units, fulfilling a housing need in the community and is compatible with the collection of surrounding uses.</i>
Policy NBE-3.13: Neighborhood Corridor. Preserve the character of existing single-family residential neighborhoods.	<i>Facts in Support: The proposal has been carefully reviewed to ensure the project minimizes impacts to the character of existing single-family neighborhoods adjacent to the project site. The proposed subdivision includes open space and detention and bioretention basins that provide a transitional buffer and has a compatible density with adjacent residential development.</i>
Policy NBE-1.15: Energy Efficiency: Support measures to reduce energy consumption and increase energy efficiency in residential, commercial, industrial, and public buildings.	<i>Facts in Support: The project would be required to comply with standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. California's Green Building Standards Code (CBC Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction projects. The project includes sustainable and energy-efficient features, including solar panels and an all-electric design, each provided at or exceeding City requirements.</i>
Housing Element Policy A.2: The project will convert vacant infill land into single-unit residences that are compatible with the surrounding area which includes existing single-unit residences to the north, east, and west.	<i>Facts in Support: The project will develop an underutilized site into a subdivision with detached single-family residences that are compatible with the surrounding single-family residences that are to the north, east and west.</i>

Housing Element Policy F.1 The project will provide housing options for a range of income levels and will facilitate the construction of small lot residential development, that will provide a variety of architectural styles and higher density compared to existing residential development adjacent to the project site.	<i>Facts in Support: The project includes a small lot development, with lot sizes of a minimum of 2,800 square feet to provide a housing options with a variety of architectural style.</i>
POLICY CP-1.15 Water Quality. Maintain and improve water quality in a way that provides public and environmental health benefits.	<i>Facts in Support: The project incorporates approximately 2.46-acres (107,506 square feet) of Bioretention and Detention Basins for stormwater control to reduce runoff levels, improve infiltration to replenish groundwater sources, reduce localized flooding, and reduce pollutants close to their source.</i>
Action CP-1.15A Require new development to incorporate site design, source control, and treatment measures to keep pollutants out of stormwater during construction and operational phases, consistent with City of Vallejo Municipal Ordinance.	<i>Facts in Support: During construction of the project, the developer will practice best construction practices to prevent pollutants out of the stormwater systems.</i>
Action CP-1.15B Encourage new development to incorporate low impact development (LID) strategies, such as rain gardens, filter strips, swales, and other natural drainage strategies, to the greatest extent feasible, in order to reduce stormwater runoff levels, improve infiltration to replenish groundwater sources, reduce localized flooding, and reduce pollutants close to their source.	<i>See Policy CP-1.15.</i>
Action CP-1.15D Require new development to connect to the Vallejo Sanitation and Flood Control District sewer system for treatment of wastewater rather than septic systems, which are not allowed.	<i>Facts in Support: The project will include new utilities, such as sanitary sewer lines, that will run from each individual home, to new sewer system and connect to existing line on Hargus Avenue.</i>

EXHIBIT - C

Table 1			
VMC Section 16.202.02,-05, Chapter 16.504, 506, 508 – Applicable Development Standards			
<i>Development Standard</i>		<i>Proposal</i>	<i>Compliant</i>
<i>Density</i>	<i>25 units/acre Allowed: 443 units on lot size of 17.76-Acres</i>	<i>New: 130 Existing: 0 Total: 130</i>	<i>Yes</i>
<i>Minimum Lot Size</i>	<i>2,000 sq.ft.</i>	<i>2,800 minimum (residential lots)</i>	<i>Yes</i>
<i>Minimum Lot Width</i>	<i>25 feet</i>	<i>40 feet</i>	<i>Yes</i>
<i>Maximum Lot Coverage</i>	<i>65%</i>	<i>45.9% to 52%</i>	<i>Yes</i>
<i>Maximum Building Height</i>	<i>35 feet</i>	<i>Ranges from 23' 5" to 26' 10"</i>	<i>Yes</i>
<i>Minimum Setbacks</i>	<i>Front: 10 feet; 7 feet for porches, stoops, and dooryards</i>	<i>10 feet</i>	<i>Yes</i>
	<i>Interior: 0 or 3 feet for the first story, 5 feet for 2 to 3 stories</i>	<i>5 feet</i>	<i>Yes</i>
	<i>Rear: 5 feet</i>	<i>5 feet</i>	<i>Yes</i>
<i>Access Location</i>	<i>Alley or side street preferred</i>	<i>Direct access from street</i>	<i>Yes</i>
<i>Orientation</i>	<i>Facades shall be designed to be oriented towards the public street or to a common courtyard, if provided.</i>	<i>Facades facing the street or open space are enhanced.</i>	<i>Yes</i>
<i>Entrance Location</i>	<i>The main entrance to each ground floor dwelling shall be visible to and located directly off a common courtyard or directly from the street.</i>	<i>Plans 1 through 3 have main entrances facing the street; Plans 4 and 5 have entrances facing each other.</i>	<i>Yes</i>
<i>Minimum Private Open Space Per Unit</i>	<i>300 square feet</i>	<i>540 sq.ft. to 854 sq.ft.</i>	<i>Yes</i>
<i>Minimum Open Space Dimensions</i>	<i>Private Ground Floor: 15</i>	<i>15 ft. to 16.7 ft.</i>	<i>Yes</i>
<i>Minimum Visible Landscaping (% of site):</i>	<i>30</i>	<i>30 percent</i>	<i>Yes</i>
<i>On-site space parking per unit</i>	<i>1 covered</i>	<i>130 covered (within garage) off-street parking spaces</i>	<i>Yes</i>
<i>Minimum Amount of Enclosed Storage Area in garages and accessory structure (sq. ft.)</i>	<i>200 sq.ft.</i>	<i>200 sq.ft in garage</i>	<i>Yes</i>
<i>Street Trees</i>	<i>1 per 50 ft. of frontage and at least 5 ft. in height when planted.</i>	<i>384 Trees</i>	<i>Yes</i>
<i>Principal Entry Feature</i>	<i>Visible from street or Courtyard Projection or Recess with minimum depth of 5 ft.</i>	<i>Plan 1 – 16 ft. Plan 2 – 5 ft.</i>	<i>Yes</i>

		<i>Plan 3 – 6.5 ft.</i> <i>Plan 4 – 2.5 ft.</i> <i>Plan 5 – 2.5 ft.</i>	
<i>Enhanced Street Side Yard Elevations</i>	<i>Horizontal plane break at least 3 ft. Vertical plane break at least 1 ft.</i> <i>*Alternative design may be approved by approving body</i>	<i>3 ft. minimum horizontal plan break</i> <i>1 ft. minimum vertical plane break</i>	<i>Yes</i>
<i>Materials</i>	<i>Long-lasting, durable materials required for dwellings</i>	<i>Stucco, Stone veneer, fiber cement shake and board and batten</i>	<i>Yes</i>
<i>Maximum Garage Width Percentage of Façade</i>	<i>50% of the façade width</i>	<i>18.75 feet (62.5%)</i>	<i>Yes (with Exception)</i>
<i>Front Yard Paving</i>	<i>50% of the required street facing yard (15 ft)</i>	<i>Less than 50%</i>	<i>Yes</i>
<i>Driveways</i>	<i>Maximum of one driveway per dwelling</i> <i>20 ft. maximum width</i> <i>Minimum setback of 5 ft. from property line</i> <i>Minimum 3 ft. wide planter adjacent to side or rear property line</i>	<i>One driveway per dwelling</i> <i>Minimum 5 ft. from property lines</i> <i>3 ft. planter adjacent to side property lines</i>	<i>Yes</i>

KB ROLLINGWOOD DRIVE SUBDIVISION PROJECT

Addendum to the General Plan EIR

Prepared for
City of Vallejo

September 2025



KB ROLLINGWOOD DRIVE SUBDIVISION PROJECT

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Prepared for
City of Vallejo

September 2025

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ENVIRONMENTAL CHECKLIST

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A copy of this Addendum and all supporting documentation may be reviewed or obtained at the City of Vallejo Planning and Development Services Department, 555 Santa Clara Street, Vallejo, California 94590.

1. Introduction and Background

1.1 Project Information

Project Title: KB Rollingwood Drive Subdivision

Lead Agency Contact:

City of Vallejo
Planning Division, 2nd Floor
555 Santa Clara Street
Vallejo, CA 94590

Contact Person and Phone Number:

Robby Thacker, Project Planner
(707) 648-4506
Robby.Thacker@cityofvallejo.net

Project Location: 201 Rollingwood Drive, Vallejo, CA 95112
Assessor Parcel Numbers 072-170-050 and 072-170-060

Project Sponsor's Name and Address:

Jerry Marcus
Director of Land Acquisition
KB Home North Bay
4830 Business Center Drive, Ste 150
Fairfield, CA 94534
(415) 713-4862
jmarcus@kbhome.com

General Plan Designation: Mix of Housing Types/Medium Density

Zoning: Residential Medium Density

Required Discretionary Approval(s): Vesting Tentative Map, Development Review, Design Review, Minor Use Permit, Landscape Review and Exception

Summary of Project:

The proposed Project proposes to subdivide 17.76 acres of property at 201 Rollingwood Drive for the development of 130 single-family residential lots and dwelling units, and eight (8) additional lots for stormwater detention and bioretention areas, and open spaces. Existing paved roadways, infrastructure, and unmaintained park facilities within John F. Cunningham Park on the site will be demolished to accommodate the proposed Project. The Project proposes to create bioretention basins and a detention basin on the site.

New single-family units would be two-stories tall and range between approximately 1,664 to 2,204 square feet square in floor area. Each lot would have open space yards, resulting in an average lot coverage of approximately 49 percent. Parking is proposed with each residence (garage and driveway) and on public streets (onsite and offsite). Overall site development will

also include the development of sidewalks and pedestrian amenities, utility and infrastructure connections, and landscaping on individual lots, along streets, and supporting stormwater basins.

The estimated duration of site preparation and development of the Project is approximately two years, from mass grading starting in 2026, to final residential construction into 2028. A balance of 60,000 cubic yards of cut and 60,000 cubic yards of fill is estimated. Also, the Project proposes to use off-road diesel construction equipment compliant with U.S. EPA Tier 4 Final non-road engine standards for all applicable equipment. The Project applicant submitted a Senate Bill (SB) 330 application for streamlined new housing development.¹ Discretionary permit(s) for the proposed Project consist of the Vesting Tentative Map, Development Review, Design Review, Minor Use Permit, Landscape Review and Exception for the proposed subdivision.

Surrounding Land Uses and Setting:

The Project site is bound by existing residential development to the north and west, Rollingwood Drive and the Skyview Memorial Lawn Cemetery to the east, and vacant City-owned land to the south.

Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement.)

San Francisco Bay Regional Water Quality Control Board General Order for Waste Discharge Requirements

California Native American Tribes: *Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?*

Although not required, on March 31, 2025, the City sent letters to the following Native American tribes who have requested consultation:

- Muwekma Ohlone Tribe of the SF Bay Area
- Confederated Villages of Lisjan Nation
- Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
- Yocha Dehe Wintun Nation
- Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
- Grindstone Rancheria of Wintun-Wailaki
- Guidiville Rancheria of California
- Wilton Rancheria

At completion of this Addendum in September 2025, Wilton Rancheria provided the following response via email on April 8, 2025

¹ SB 330, *Housing Crisis Act of 2019*, adopted designed to streamline the approval process for housing development projects and increase housing production in California.

1.2 Purpose of this Addendum

This Addendum has been prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (Title 14, California Code of Regulations §15000 et seq.), and the regulations and policies of the City of Vallejo (“City”). The purpose of this Addendum is to provide objective information regarding the environmental consequences of the proposed KB Rollingwood Drive Subdivision Project (“Project”) to the decision makers considering the proposed Project. Specifically, the environmental analysis in this Addendum is prepared to determine if the impacts of the proposed Project are consistent with those previously studied and addressed in the City of Vallejo’s *Propel Vallejo General Plan and Sonoma Boulevard Specific Plan Final Environmental Impact Report (EIR)* (General Plan EIR) certified in August 29, 2017 (SCH # 2014112035), the City’s April 2021 *New Zoning Code Revised Initial Study/Mitigated Negative Declaration (IS/MND)* for the City’s New Zoning Code and Zoning Map (Zoning Update), and in the City’s December 2024 *Addendum to the General Plan EIR for its 2023-2031 Housing Element Update* (Sixth Cycle).

1.3 Prior CEQA Review

The City of Vallejo is the Lead Agency under CEQA for environmental review of the proposed Project. Based on its preliminary review, the City determined that the proposed Project does not meet any of the statutory exemptions commencing with CEQA Guidelines Section 15260 or categorical exemptions commencing with CEQA Guidelines Section 15300. The City then acknowledged that the proposed Project was considered within the analyses in prior program-level CEQA documents that the City previously certified and approved.

Together, the General Plan EIR (including the Housing Element Addendum) and the Zoning Update IS/MND are considered prior program-level CEQA documents that contemplated the proposed Project. Each of these prior documents considered a substantial part of the vacant KB Rollingwood Drive Subdivision Project property for residential development, with a realistic dwelling unit count based on a pending application at that time for the proposed Project.² The land use and density of the proposed Project align with the General Plan EIR, Zoning Code, and residential development standards therein and previously analyzed. Discussion of how the General Plan and Zoning Update contemplated residential development on the proposed Project site is discussed throughout this document.

1.4 CEQA Framework for the Addendum

The following CEQA Guidelines frame the City’s preparation of this addendum:

² The Housing Element identifies Housing Site No. 68 (APN 0072170060), which is 11.06 acres that is the surplus Vallejo Unified School District property that is the northern portion of the proposed Project site. An approximately 6.7 acres (APN 0072170050) that is the southern portion of the proposed Project site is not part of Housing Site No. 68 analyzed in the General Plan EIR. The Housing Element anticipated development of 130 units on 11.06 acres; the proposed Project is 130 units on 17.76 acres.

Section 15164. Addendum to an EIR or Negative Declaration

- (a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.
- (b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 *[below]* calling for the preparation of a subsequent EIR or negative declaration have occurred.
- (c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.
- (d) The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.
- (e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 *[below]* should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

1.5 Summary of Addendum Findings and Decision to Not Prepare a Subsequent EIR

The evaluation of the proposed Project is provided in the Environmental Checklist in Section 3 of this document. The evaluation confirms that the proposed Project meets the conditions for preparation of an addendum to the certified 2017 General Plan EIR. The potential environmental impacts associated with the proposed Project were adequately evaluated and, as needed, mitigated in the General Plan EIR, and no subsequent EIR is warranted, as discussed below. Further, the analyses in the 2024 Addendum to the General Plan EIR prepared for the Housing Element Update and the 2021 Zoning Updated IS/MND are consistent with the impacts in the General Plan EIR, so the proposed Project aligns with those prior CEQA documents as well.

Addendum Findings

The proposed Project qualifies for an addendum because none of the following findings under PRC Section 21166 and CEQA Guidelines Section 15162 are made:

Section 15162. Subsequent EIRs and Negative Declarations

- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- (1) **Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;**

The proposed Project does not propose any changes to the existing General Plan land use designation or zoning districts, and proposes a land use that is consistent with the existing designations. The characteristics of the proposed Project are the same as previously assumed in the General Plan EIR. Impacts analyzed in the General Plan EIR would remain the same with the proposed Project. Thus, the proposed Project does not require a major revision to the EIR and does not substantially increase the severity of identified significant effects.

- (2) **Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or**

The circumstances under which the proposed Project would occur are not changed from what was assumed in the General Plan EIR, nor does the proposed Project result in a new or substantial increase in the severity of significant impacts in the General Plan EIR, as demonstrated in the Environmental Checklist that follows. No notable circumstances pertaining to the Project site or its surroundings have occurred since the General Plan EIR analysis was prepared. While updates and changes have occurred to certain CEQA criteria, thresholds, and/or analysis approaches as a result of amendments to the CEQA Guidelines, caselaw, or other regulations or adopted standards and/or guidance, these are disclosed in the Checklist for public information and discussed to clarify that none are considered changed circumstances for purposes of this Section.

- (3) **New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:**

- (a) **The project will have one or more significant effects not discussed in the previous EIR or negative declaration;**

The General Plan EIR identifies significant and unavoidable impacts for air quality, GHG emissions, noise, and transportation. Because development of the proposed Project of 130 residential units on the Project site was factored into the General Plan EIR analysis, the Project would not exceed the General Plan EIR analysis, which considered a much greater level of citywide development of which the proposed Project is a part. The proposed Project does not result in a significant effect not discussed in the previous General Plan EIR.

- (b) **Significant effects previously examined will be substantially more severe than shown in the previous EIR;**

As explained above, because development of the proposed Project of 130 residential units on the Project site was factored into the General Plan EIR analysis, the Project would not exceed the General Plan EIR impacts, which considered a much greater level of citywide development of which the proposed Project is a part. The proposed Project does not result in a significant effect that is substantially more severe than shown in the previous General Plan EIR.

- (c) **Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or**

No mitigation measures or alternatives in the General Plan EIR are changed in this Checklist, and not all of the mitigation measures are required or pertain to the proposed Project.

- (d) **Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant**

effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

No mitigation measures or alternatives in the General Plan EIR are changed in this Checklist, and not all of the mitigation measures are required or pertain to the proposed Project.

Overall, the potential environmental impacts associated with the proposed Project have been adequately covered by the analysis and mitigation measures in the prior CEQA documents. Preparation of a subsequent EIR is not required in accordance with the aforementioned CEQA Guidelines Section 15162, and no further CEQA analysis is required. The above findings satisfy CEQA compliance for the proposed Project.

1.6 Public Review and Filing

CEQA does not require the Lead Agency to circulate an addendum for public review. However, because the proposed Project will need to secure permitting under the Clean Water Act Section 401, if the City approves the proposed Project, it will file a Notice of Determination (NOD) with the State Clearinghouse (SCH) for public access via the SCH CEQAnet web portal. The City will also file the NOD with the County Clerk, which will post it within 24 hours of receipt at the County Clerk's Office. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15075(g)).

2. Project Description

2.1 Project Site and Surroundings

The Project site is located within the city limits of Vallejo, in Solano County, at 201 Rollingwood Drive, approximately 1.0 mile northeast of the interchange of Interstates 80 and 780 in the southeastern portion of the City. See **Figure 2-1, Project Site Location**. The 17.76- acre Project site is located west of Rollingwood Drive. The Project site consists of two parcels identified as APNs 072-170-050 and 072-170-060.

The Vallejo City Unified School District currently owns the property, which is occupied by the John F. Cunningham Park. For nearly 50 years, the Project site was primarily used as little league baseball fields, including associated dugout and bleacher structures and a snack shack. These facilities are not actively maintained or used at this time. The Project site also contains public streets, exposed soil, perimeter trees (approximately 41), and non-native annual grasslands.

The Project site is relatively flat and slopes up sharply to the Skyview Memorial Lawn Cemetery to the east and vacant City land to the south. Open land containing a drainage ditch with associated emergent marsh wetland exists along the northern boundary of the site, and potential seasonal wetlands exist in the central area of property. No riparian habitat was observed on the site as of April 2025 when reconnaissance for this Initial Study was conducted. See **Figure 2-2, Aerial of Project Site and Surroundings**.

2.2 Project Characteristics

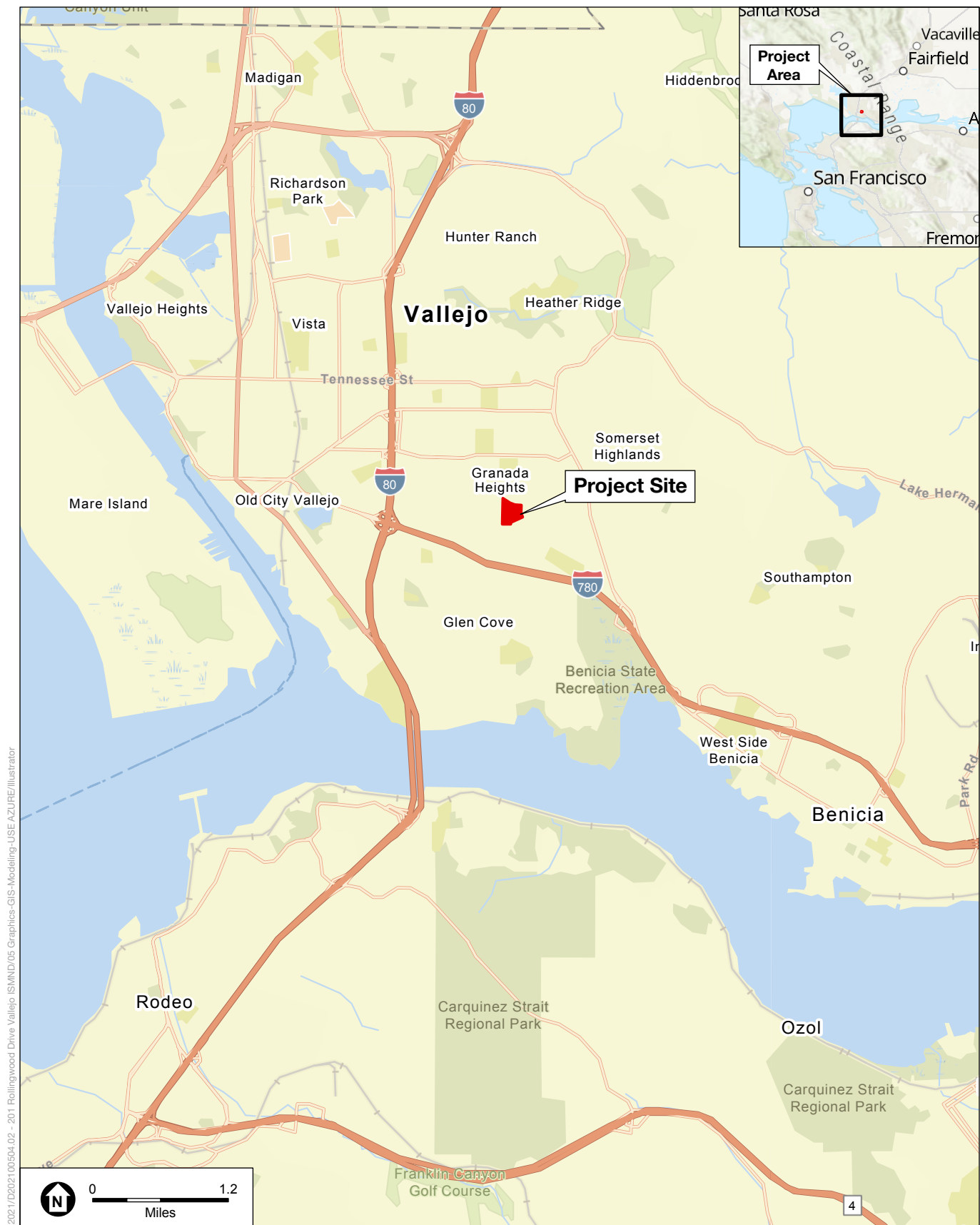
Site Clearance

The proposed Project would involve the demolition of all existing structures and removal of remnants of the former recreational facilities: existing roadways, infrastructure, and park and baseball field facilities on the site to accommodate development of the proposed Project. Several existing trees on the Project site would be removed. In addition, the proposed Project may require the removal/filling of potential seasonal wetland features in the central portion of the site.

Subdivision Characteristics

Residential Development and Circulation System

The Project entails redevelopment of the Project site for a new residential subdivision. The Project applicant proposes to subdivide the Project site for the development of 130 single-family residential lots and new single-family dwellings, in addition to eight (8) lots created for stormwater facilities and open space. **Figure 2-3, Vesting Tentative Map**, shows the proposed subdivision with individual residential lots along a new continuous public roadway



SOURCE: ESA, 2025; ESRI, 2025

201 Rollingwood Drive

Figure 2-1
Project Site Location



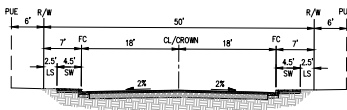
SOURCE: ESA, 2025; Google Maps, 2025

201 Rollingwood Drive

Figure 2-2
Aerial of Project Site and Surrounding Area

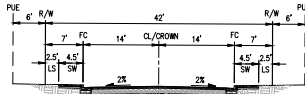
GENERAL NOTES

- ASSESSORS PARCEL NO. 072-170-050, 072-170-060
ADDRESS: 201 ROLLINGWOOD DRIVE
- SITE AREA (GROSS): 17.76+ ACRES
SITE AREA (NET): 17.33+ ACRES
- LOTS:
RESIDENTIAL: 130 (LOTS 1-130)
PUBLIC STREETS (CITY OF VALLEJO): 2 (PARCEL A & C)
PUBLIC STREET DEDICATION (CITY OF VALLEJO):
1 (ROLLINGWOOD DRIVE - PARCEL C)
PRIVATE DRIVE AISLES (HOA): 1 (PARCEL B)
OPEN SPACE (HOA): 2 (PARCEL D & H)
DETENTION (HOA): 1 (PARCEL F)
WATER QUALITY (HOA): 4 (PARCEL E, G, I & J)
- DWELLING UNITS: 130
- SITE DENSITY (GROSS): 7.3 DU/AC
SITE DENSITY (NET): 7.5 DU/AC
- EXISTING GENERAL PLAN: MIX OF HOUSING TYPES / MEDIUM DENSITY (R-MH)
PROPOSED GENERAL PLAN: MIX OF HOUSING TYPES / MEDIUM DENSITY (R-MH)
- EXISTING ZONING: RESIDENTIAL MEDIUM DENSITY (RMD)
PROPOSED ZONING: RESIDENTIAL MEDIUM DENSITY (RMD)
- EXISTING LAND USE: MIX OF HOUSING TYPES
PROPOSED LAND USE: MIX OF HOUSING TYPES
- BENCHMARK: POINT 9672 (22 PG 23)
BRASS CAP IN MONUMENT WELL MARKED "ICE 6250" AT THE CENTERLINE INTERSECTION OF DRYDEN DRIVE AND DIER COURT.
ELEVATION: 167.40' (NAVD83)
CALC POINT 531
- BASES OF BEARINGS: THE BASES OF BEARINGS FOR THIS SURVEY IS DETERMINED BY FOUND MONUMENTS, THE BEARING BEING N00Y145°W PER MAP OF LINDA DEL MAR UNIT NO. 1-A (19 M 97)
- FLOOD ZONE: ZONE X: AREAS WITH MINIMAL FLOOD HAZARD
SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06050506270 & 06050506290
DATE: AUGUST 3, 2016
- UTILITIES:
WATER: CITY OF VALLEJO
SEWER: VALLEJO FLOOD AND WASTEWATER DISTRICT
STORM DRAIN: VALLEJO FLOOD AND WASTEWATER DISTRICT
GAS & ELECTRIC: PG&E
TELEPHONE: AT&T
- DIMENSIONS: ALL PARCEL, LOT AND EASEMENT DIMENSIONS ARE PRELIMINARY AND SUBJECT TO FINAL MAP
- GRADING: GRADING SHOWN IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL DESIGN
- PHASING: PROJECT MAY BE CONSTRUCTED IN PHASES
- FINAL MAP: THIS PROJECT MAY BE PHASED. MULTIPLE FINAL MAPS MAY BE FILED UPON APPROVAL OF THE VESTING TENTATIVE SUBDIVISION MAP.



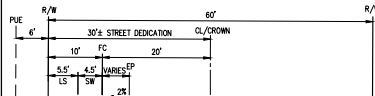
50' STREET SECTION (PUBLIC)

NOT TO SCALE



42' STREET SECTION (PUBLIC)

NOT TO SCALE



ROLLINGWOOD STREET SECTION

NOT TO SCALE

GOMEZ GUSTAVO &
MIJANAMAE JT
APN 0071-260-280

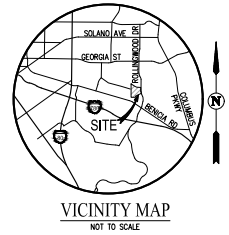
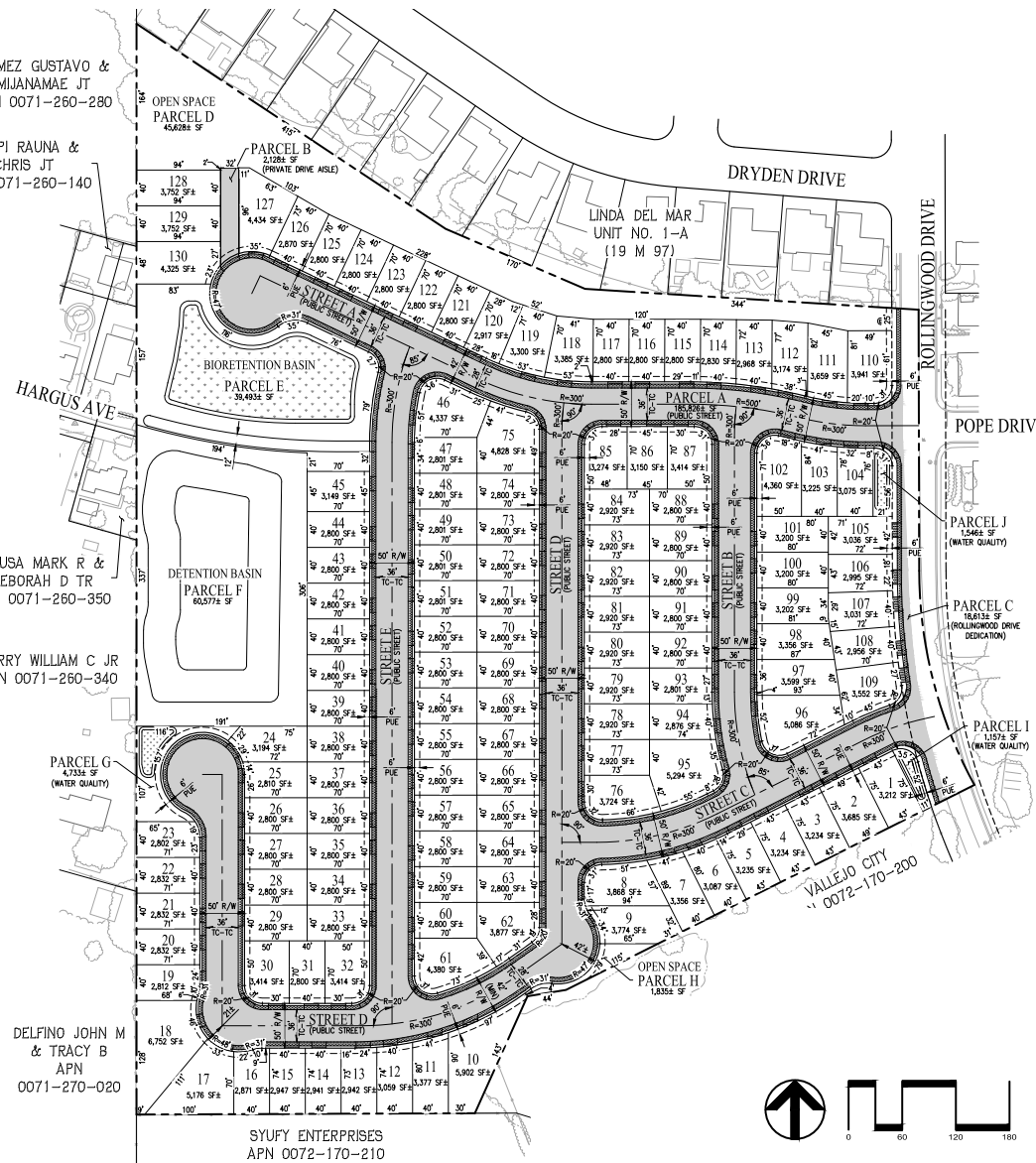
FILIPPI RAUNA &
CHRIS JT
APN 0071-260-140

SOUSA MARK R &
DEBORAH D TR
APN 0071-260-350

BERRY WILLIAM C JR
APN 0071-260-340

DELFINO JOHN M
& TRACY B
APN 0071-270-020

SYUFY ENTERPRISES
APN 0072-170-210



CONTACTS

- OWNER/DEVELOPER: KB HOME NORTH BAY LLC
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FAIRFIELD, CA 94534
(707) 389-7501
JERRY MARCUS
- ENGINEER: CARLSON, BARBER & GIBSON, INC.
2633 CAMINO RAMON, SUITE 300
SAN RAMON, CALIFORNIA 94583
(925) 866-0322
ANDREA BELLANCA, R.C.E. NO. 61806

LEGEND

- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED FACE OF CURB
- PROPOSED CENTERLINE
- PUBLIC UTILITY EASEMENT
- PROPOSED SIDEWALK/DRIVEWAY
- PROPOSED AC STREET
- PROPOSED BIORETENTION AREA



system of six new streets. In addition to the residential lots, individual lots will be created for open space, stormwater basins, public streets and common areas. Other elements of the proposed Project include new sidewalks along all streets, other pedestrian walkways, utility and service infrastructure connections to existing offsite connections, and trees and landscaping throughout the site.

Stormwater Management

Stormwater currently flows as sheet flow across the Project site to the existing municipal stormwater system west of the site. **Figure 2-3 (VTM)** shows the Project's proposed detention basin and three bioretention basins to manage stormwater flows with the proposed development. The detention basin is proposed on the west side of the property. The largest bioretention basin is proposed in the northwest area of the site and two smaller basins are located at the two driveway entrances to the Project site.³

Overall, as depicted in **Figure 2-2 (Aerial)**, the existing property is mostly pervious area, and the Project would reduce the pervious area to approximately 46 percent with the development of streets and residential buildings.

Landscaping, Open Space and Lighting

A variety of landscaping is proposed throughout the Project site. As illustrated in **Figure 2-4, Preliminary Development Plan and Landscaping**, the planting design creates new green space by incorporating street trees along the Project's streets, around the stormwater basins, within the detention basin, and within each residential lot. An estimated 206 street trees and 178 accent trees are proposed sitewide (384 trees total). The sloped areas around the proposed stormwater basin would be vegetated buffers, and the detention basin would be planted with a hydroseed of grasses and wildflowers. Individual residential lots will have fully landscaped front yards, including a street tree, accent tree, in addition to a range of shrubs, grasses and groundcovers in each front yard. Overall, the proposed landscape palette includes appropriate native and ornamental plant material that is drought tolerant and sustainable to the local climate. Both low flow drip and smart irrigation systems will be used.

Open space on the site will be a combination of large parcels and residential yards. **Figure 2-3 (VTM)** delineates a linear 1.0-acre open space parcel (Parcel D) is proposed along the north boundary of the site, and a 0.1-acre parcel (Parcel H) is proposed at the bend of Street D along the south boundary of the site. In addition, approximately 327 to 506 square feet of open space would be provided in the front and rear yards of each residential lot. Although not designated as open spaces, the stormwater basins also present as open areas within the subdivision.

The Project will introduce new sources of light with new street lighting standards in addition to exterior lighting on the residences.

³ The detention basin will capture stormwater to avoid overflow offsite. The bioretention basins are permanent pools of standing water used to capture and enable stormwater to infiltrate into the subsurface. Both basins slow the flow of runoff offsite to avoid flooding downstream.

SOURCE: KB Home



Figure 2-4
Preliminary Development Plan and Landscaping

Residential Development

Figure 2-4 (PDP) also shows one single-family unit to be constructed on each lot in a manner that would vary in placement within its lot across five “lot plans.” The proposed house designs would also vary across three styles that range from approximately 1,664 to 2,204 square feet in floor area. All house designs would be two stories, ranging in height from approximately 24 to 27 feet tall (finished floor to top of roof). The typical residential lots are 2,800 square feet, and the average lot coverage would range from approximately 46 to 52 percent, depending on the lot plan.

Development Density

The Vallejo General Plan designates the Project site Mix of Housing Types/Medium Density (R-MH). This designation prioritizes residential development with front and rear yards and side yard setbacks, and public facilities such as schools, religious institutions, parks, and other community facilities. This designation permits a residential density of up to 25 dwelling units per acre. The Project site is zoned Residential Medium Density (RMD), which allows for a mix of housing types, including single family residences, with up to 25 dwelling units per acre. (Vallejo Municipal Code § 16.202.01(E).) This zoning district is consistent with the General Plan R-MH land use designation applicable to the site. With 130 dwelling units on the 17.76-acre Project site, the residential density of the proposed Project will be approximately 7.3 dwellings per acre which is consistent with the General Plan land use and zoning designations.

Parking

A total of 637 parking spaces would be provided sitewide. The proposed single-family residences would include two-car garages and driveways that accommodate two additional vehicles, totally four spaces per unit, or 520 spaces total. The Project also proposes on-street parking; 107 spaces along internal streets and 10 spaces off-site, along Rollingwood Drive adjacent to the Project site.

Utilities and Infrastructure

The Project site is currently served by existing utility infrastructure for water, sanitary sewer, storm drainage, gas, electricity and telephone/cable. The proposed Project will involve the installation of a new 8-inch water main in two locations to connect to the existing mains in Rollingwood Drive to the east and in Hargus Avenue to the west. These lines will be extended into the new Project to serve the new residences. In addition, the Project includes off-site sanitary sewer, stormwater drainage, and electric utility and infrastructure connections that will be located within existing road rights-of-way to provide service to the proposed subdivision. No other off-site improvements are proposed.

Sustainability Features

Overall, the Project’s design would incorporate Building Energy Efficiency Standards, California Green Building Standards Code, and Appliance Energy Efficiency Standards to minimize energy

consumption and greenhouse gas emissions. Moreover, the proposed Project includes several specific sustainability features, such as the provision of solar panels and on all single-family residences, the use of bio-retention and infiltration systems to clean and reduce storm water runoff, the planting of more new trees that existing to reduce heat island effect, and the use of smart irrigation to reduced water consumption. Although required in accordance with mitigation measures identified in this Initial Study, the Project will also incorporate electric vehicle charging infrastructure (EVCS) in each residence.

Jurisdictional Delineation

As previously described, the Project site includes open land containing a drainage ditch with associated emergent marsh wetland along the northern boundary of the site, as well as potential seasonal wetlands in the central area of property, which may require removal/filling to develop the Project. Although not anticipated to be considered federal jurisdictional waters, they may be considered Waters of the State of California under the Porter Cologne Act and Fish and Game Code. The Project will obtain any necessary permits from the California Department of Fish & Wildlife and the Regional Water Quality Control Board. The Project also proposes to replacement mitigation into the project design to address the loss of any waters of the State in accordance with standard requirements. (See more detail in Section 3.4, *Biological Resources*, of the Environmental Checklist.)

Natural Resources Permitting

In accordance with the Migratory Bird Treaty Act (MBTA), the California Fish and Game Code (FGC), and California Department of Fish and Wildlife (CDFW), the Project will specifically implement measures to avoid adverse effects to nesting birds, burrowing owls, or roosting bats during and prior to construction. Detailed measures for each address periods, actions, and limitations that are to occur prior to, during, and/or after construction activities to avoid environmental impacts.

The Project applicant has initiated the process to confirm the presence or absence of jurisdictional features on the property and will obtain state and federal permits from the U.S. Army Corps of Engineers, the RWQCB, and/or CDFW for activities within the applicable agency's jurisdiction if required. The Project will also apply for and obtain a CDFW Lake and Streambed Alteration Agreement (Section 1602) if the Project affects the emergent marsh and channel on the northern boundary of the site. (See more detail in Section 3.4, *Biological Resources*, of the Environmental Checklist.)

Construction and Phasing

Site preparation would be developed in a single phase. Subsequent development could be phased, with the filing of several final maps. For the analysis conducted in this Initial Study, construction is estimated to occur over a period of approximately two years; construction of the Project is anticipated to begin in 2026 and anticipated to become operational in 2028. The Project would include demolition of all existing structures. An estimated 60,000 cubic yards of cut and 60,000

cubic yards of fill will be required. An estimated 13,700 building square feet of demolition debris off-haul and 5,000 cubic yards of material export would be generated by Project construction.

Construction activities would adhere to the standard days and hours permitted per City of Vallejo requirements and special allowances for certain quiet activities to occur on Saturdays in addition to weekdays, pursuant to the City's Noise Ordinance. Standard construction equipment that would be used, and the Project will use off-road diesel construction equipment compliant with U.S. EPA Tier 4 Final non-road engine standards for all applicable equipment. No pile driving is proposed.

2.3 Required Approvals and Permits

The City of Vallejo is the Lead Agency with principal responsibility for approving the Project. This CEQA document will be relied on for, but not limited to, the following discretionary and other approvals necessary to implement the Project as proposed:

- Vesting Tentative Map
- Development Review
- Design Review
- Landscape Review
- Minor Use Permit
- Exception
- Demolition, Grading and other site development permits

The Project applicant has submitted a formal development project application pursuant to the Housing Crisis Act (SB 330) for streamlined review and approval of new housing development.

3. Environmental Checklist

The Environmental Checklist addresses each environmental topic in Appendix G to the CEQA Guidelines. Under each environmental topic, the section first introduces any Project-specific background studies prepared to support the Project analysis. In certain cases, setting information that is new or updated since preparation of the prior CEQA documents and that is directly relevant to the assessment in this Addendum for information purposes only; the Checklist incorporates by reference the setting and analysis of all potential environmental topics in the prior CEQA documents. Under each environmental topic, the section then summarizes the impact findings from the prior CEQA documents (*Prior CEQA Documents' Findings*) and if any mitigation measures were identified in those previous documents.

The Addendum assessment (*Discussion*) under each environmental topic then discusses whether the potential environmental impacts of the proposed Project are adequately addressed in the prior CEQA documents (as discussed in 1.5, *Summary of Addendum Findings and Decision to Not Prepare a Subsequent EIR*). The Environmental Checklist provides adequate explanations and evidence to support each entry and conclusion. All answers and explanations address potential environmental impacts taking into account the whole action of the proposed Project. Considered are all actions that may occur onsite and offsite, be indirect and direct, occur under cumulative and project-level conditions, as well as during construction and throughout Project operations. Mitigation measures from the prior CEQA documents that directly apply to the proposed Project and are to be implemented by the Project applicant are identified. For each threshold or significance criterion under each environmental topic, the Checklist indicates with an “X” to indicate whether the proposed Project would result in an

1. Equal or Less Severe Impact than Previously Identified in the Prior CEQA Documents
2. Substantial Increase in Severity of the Previously Identified Impact in the Prior CEQA Documents; or
3. New Significant Impact.

An “X” under finding #2 or #3 would indicate conditions exist under CEQA Guidelines Section 15162 that trigger preparation of a supplemental EIR.

Although none are identified in this Checklist, a determination of a new or substantially more severe impact would then trigger a discussion of whether preparation of a subsequent or supplemental EIR is warranted, pursuant to conditions in Public Resources Code (PRC) Section 21166 and CEQA Guidelines Sections 15162 (Subsequent EIRs). The finding of each environmental topic section is summarized (*Summary*). The Environmental Checklist containing the environmental analysis of the proposed project starts on the following page.

3.1 Aesthetics

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
AESTHETICS — Except as provided in Public Resources Code Section 21099, would the project:			
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☒	☐	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☒	☐	☐

Prior CEQA Documents' Findings

The Addendum to the General Plan EIR states (verbatim text shown italicized), *the General Plan EIR determined that implementation of the General Plan would result in less significant impacts regarding scenic vistas, visual character, light and glare, and cumulative impacts and no impact to scenic resources. Although new buildings would have the potential to modify scenic views from viewpoints adjacent or close to development sites, consistency with proposed General Plan policies and adherence to applicable zoning codes would ensure that scenic views are protected as development occurs. Additionally, new development of any kind would need to adhere to the City's Municipal Code, including Chapters 16.36 (Residential View District), 16.38 (Architectural Heritage and Historic Preservation), 16.40 (Special Land Use District), 16.64 (Signs), 16.70 (Screening and Landscaping), and 16.116 (Planned Development Permit Procedure), which would mitigate the degradation of the existing visual character.*⁴ *Impacts regarding light and glare would also be less than significant because any new development must be consistent with the California Building Code (CBC) standards for outdoor lighting and the City's Zoning Code. By incorporating all of the City's required General Plan policies, Municipal Code, Zoning Code, the various chapters, and CBC standards, cumulative impacts on aesthetics as a result of any development would be less than significant.* (2024 Addendum pp. 59-60; 2017 General Plan EIR section 4.1)

The Revised IS/MND for the Zoning Update reported the same impact findings as identified in the General Plan EIR and its Addendum. (2021 IS/MND section 4.1) No mitigation measures were identified in the prior CEQA documents.

⁴ Chapter references have since been removed from the current version of the Municipal Code. Current chapter references are addressed in the *Regulatory Setting*, above.

Discussion

- a) **Less than Significant.** Under CEQA, scenic vistas are those that are experienced from publicly accessible locations and include urban skylines, valleys, mountain ranges, or large bodies of water. A project would have a significant effect on scenic vistas under CEQA if it would substantially block or degrade scenic views from public vantage points. Impacts on views from private property are not considered significant effects on the environment under CEQA. As mentioned above, the General Plan does not designate any official scenic vistas within the City, though there are important scenic views from hilltops and elevated roadways. Therefore, the Project site is not located within any officially designated scenic vista.

Long distance views of Sulphur Springs Mountain, located approximately 4 miles to the north of the Project site, can be seen from the south and east of the Project site. However, the existing views of Sulphur Springs Mountain from public areas such as Benicia Road and Rollingwood Drive are generally limited to glimpses of the mountain range between existing buildings and tree lines, as they are blocked by mature trees in the foreground and by existing trees and buildings in the background. Additionally, although the Project site is relatively flat, the surrounding area is hilly and contains mature trees that often extend above the surrounding buildings. As a result of the existing topography, no prominent scenic views exist beyond the immediate area.

Although implementation of the Project would result in an overall increase in building height at the Project site, the proposed residential units are well within the height limit of 35 feet established in the City of Vallejo Municipal Code for the Small Lot Single Unit development, Table 16.202-C. In addition, the Project would be consistent with the General Plan and would adhere to development standards to protect scenic views, considered in Sections 16.604 (Design Review) of the Municipal Code, which is intended to ensure that development shall not unnecessarily obstruct scenic views (16.604.01[D][3]). For these reasons, the development of the Project would not directly affect a scenic vista. This impact would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- b) **No Impact.** The Project site is not adjacent to or in close proximity to a designated or eligible scenic highway. As such, the Project would not damage scenic resources within a designated State scenic highway. The Project would have no impact and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- c) **Less than Significant.** The Project site is located within an urbanized area of the City of Vallejo. However, the visual character of the surrounding area is typified by single-family residential neighborhoods and expansive open areas of cemetery use. Observers viewing the Project site from publicly accessible areas during construction could view associated construction equipment and vehicles, however, these views would be temporary in nature.

The proposed development would include five different two-story plans constructed with exterior materials matching each architectural style (Spanish, Craftsman, and Farmhouse), fully landscaped front yards with street trees, and public streets that include lighting and sidewalks. These features would be designed to complement the surrounding neighborhoods and maintain the existing residential character.

The Project site is designated Mix of Housing Types/Medium Density (R-MH) General Plan land use designation and is zoned Residential Medium Density (RMD). The R-MH designation “applies to residential neighborhoods largely characterized either by 1) single-family homes but with a mix of other housing types, including duplexes, triplexes, fourplexes, some smaller scale apartment buildings, and small commercial spaces; or 2) primarily single-use, multi-family developments with common outdoor spaces.” The maximum permitted residential density under the R-MH designation is 25 dwelling units per acre.

The Project would develop 130 residential units on 17.76 acres with an overall density of 7.3 dwelling units per acre, which is notably less than the maximum residential density of 25 dwelling units per acre allowed under the R-MH land use designation and RMD zoning district. As previously discussed, the Project would be required to adhere to Small Lot Development Standards under the RMD zoning, Table 16.202-C, which the Project applicant has designed the Project to meet. In addition, the Project would undergo Development Review and Design Review consistent with Sections 16.604 and 16.605 of the Vallejo Municipal Code. These existing requirements would include review of the physical developments to the Project site, including the overall unit scale, massing, and design to ensure compatibility and compliance with City requirements governing scenic quality. Compliance with the design standards outlined for the R-MH land use designation and the RMD zoning district would ensure that the Project would preserve and enhance the desired character of the existing surrounding residential neighborhoods in a manner consistent with the General Plan and zoning. Therefore, the Project would not conflict with applicable zoning or other regulations governing scenic quality, and this impact would be less than significant and would not result in any new significant or substantially greater impacts as the impacts as identified in the prior CEQA documents.

- d) **Less than Significant.** The Project site is located in a suburban area with a variety of existing light sources, including streetlights, interior and exterior building lighting, and light associated with traffic on nearby roadways. According to Vallejo Municipal Code Chapter 16.506 on Lighting and Glare, the Project site is located in an area of medium ambient lighting levels. The Project site currently does not generate light as it is a vacant parcel. Development of the Project would generate new nighttime lighting in the area with the introduction of new interior and exterior lighting from individual residential units, lighting associated with additional vehicular traffic to and from the Project site, and street lighting. These light sources would not have a significant impact on the surrounding area, as they would only incrementally add to the existing background light levels already present from the existing street lighting and suburban development in the area.

The Project would include building materials such as windows that would create new sources of glare, but this glare would be consistent with the surrounding development and would also be reduced by use of landscaping. The Project would include fully landscaped front yards and street trees which would provide screening from the light and glare of the residential units.

As discussed above, the Project would be consistent with the residential uses that the General Plan and zoning ordinance planned for the site. The project would comply with the design standards and guidelines outlined for the R-MH land use designation and RMD zoning district in Section 16.202 of the Vallejo Municipal Code and would be subject to Development Review and Design Review in compliance with Sections 16.604 and 16.605 of the Vallejo Municipal Code. Compliance with these City regulations would ensure that the additional lighting associated with the Project would not create a new source of substantial light or glare that would result in the disruption of day or nighttime views in the area. All lighting associated with the Project would be shielded in accordance with City lighting requirements such that it would minimize light spillage onto adjacent properties in accordance with Development Standards established for the residential uses and City Municipal Code Chapter 16.506 on Lighting and Glare. Through compliance with City zoning and municipal code regulations, lighting would not substantially affect daytime or nighttime views in the Project vicinity. Therefore, this impact would be less than significant, and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Summary

Based on the above aesthetics analysis, the proposed Project would not result in new or substantially more severe significant aesthetics impacts than any identified in the prior CEQA documents. No mitigation measures apply. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

- California Department of Transportation (Caltrans). 2025. *California State Scenic Highway System Map*. Available: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed April 22, 2025.
- City of Vallejo. 2016. *General Plan 2040 and Sonoma Boulevard Specific Plan Draft EIR*. July 2016. Available: <https://www.cityofvallejo.net/common/pages/GetFile.ashx?key=IRISAczs>. Accessed May 2, 2025.
- City of Vallejo. 2021. *City of Vallejo New Zoning Code Revised Initial Study/Mitigated Negative Declaration*. 2021. April, 2021. Available: <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.vallejo.gov/common/pages/GetFile.ashx?key=7xESAQLv>. Accessed June 12, 2025.

City of Vallejo. 2024. *Municipal Code*. Available online at:
https://library.municode.com/ca/vallejo/codes/municipal_code?nodeId=VACAMUCO&showChanges=true. Accessed April 3, 2025.

City of Vallejo. 2024. *Addendum to the General Plan EIR for the City of Vallejo 2023-2031 Housing Element Update*. Adopted December 30, 2024. Available:
<https://www.cityofvallejo.net/common/pages/GetFile.ashx?key=Rd86AYAh>. Accessed June 13, 2025.

3.2 Agriculture and Forestry Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
AGRICULTURE AND FORESTRY RESOURCES —			
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:			
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☒	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☒	☐	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☒	☐	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☒	☐	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☒	☐	☐

Prior CEQA Documents' Findings

The General Plan EIR identified less-than-significant impacts regarding agricultural and forestry resources. While there are acres of prime land acres under a Williamson Act contract within Solano County, a majority of those acres are located east of the General Plan Project Area and would not be impacted under implementation of the General Plan. While there are some areas within the General Plan area that are classified as Unique Farmland, General Plan development would not adversely affect any of the identified farmland or forestry land. Overall, General Plan development is focused in areas that have generally been previously urbanized or are consist of infill development. (2017 General Plan EIR pp. 6-1 – 6-3)

Similarly, the Revised IS/MND for the Zoning Update identified no impacts for agricultural and forestry resources (2021 IS/MND section 4.2), and the topic was not discussed in the Addendum to the General Plan EIR.

Discussion

- a-e) **No Impact.** Prime Farmland, Unique Farmland, Farmland of Statewide Importance, forest, or timberlands do not occupy the Project site. Also, the Project site does not support agricultural or timber uses; and is not zoned for agricultural or timber uses (DOC, 2022). Since the Project site does not contain agricultural uses or forest land and is not zoned for such uses, the Project would not result in the conversion of farmland to non-agricultural use or forest land to non-forest use. The Project would not conflict with land use designations for agriculture because the Project site is designated as Mix of Housing Types/Medium Density (R-MH). Furthermore, the Project would not conflict with any existing agricultural zoning or Williamson Act contracts (DOC, 2023) as the Project site is not subject to a Land Conservation Act contract.⁵ Therefore, the Project would have no impact on agriculture and forestry resources, same as the conclusion identified in the Revised IS/MND for the Zoning Update.

Summary

Based on the above agriculture and forest resources analysis of the proposed Project compared to the analysis for this topic in the prior CEQA documents, the proposed Project would not result in a new or substantially more severe significant agriculture and forest resources impacts identified in the prior CEQA documents. No mitigation measures apply. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

- California Department of Conservation (DOC). 2022. *California Important Farmland*. Available: <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed April 4, 2025.
- City of Vallejo. 2016. *General Plan 2040 and Sonoma Boulevard Specific Plan Draft EIR*. July 2016. Available: <https://www.cityofvallejo.net/common/pages/GetFile.ashx?key=IRISAczs>. Accessed May 2, 2025.
- City of Vallejo. 2020. *City of Vallejo General Plan 2040 Land Use Map*. Available: <https://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=17961494>. Accessed March 26, 2025.
- City of Vallejo. 2021. *City of Vallejo New Zoning Code Revised Initial Study/Mitigated Negative Declaration*. 2021. April, 2021. Available: chrome-

⁵ The Williamson Act is a California law enacted in 1965 that provides property tax relief to owners of farmland and open space land in exchange for a 10-year agreement that the land will not be developed or converted into another use.

extension://efaidnbmnnnibpcajpcgglefindmkaj/https://www.vallejo.gov/common/pages/GetFile.ashx?key=7xESAQLv. Accessed June 12, 2025.

City of Vallejo. 2024. *Addendum to the General Plan EIR for the City of Vallejo 2023-2031 Housing Element Update*. Adopted December 30, 2024. Available: Available: <https://www.cityofvallejo.net/common/pages/GetFile.ashx?key=Rd86AYAh>. Accessed June 13, 2025.

DOC. 2023. *California Williamson Act Enrollment Finder*. Available: <https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html>. Accessed April 4, 2025.

3.3 Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
AIR QUALITY —			
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:			
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☒	☐	☐

Significance Thresholds

The BAAQMD *California Environmental Quality Act Air Quality Guidelines* (CEQA Guidelines) is an advisory document that provides lead agencies, consultants, and project proponents with procedures for assessing air quality impacts and preparing environmental review documents (BAAQMD 2023). The document describes the criteria that the BAAQMD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for use in determining whether projects and plans would have significant adverse environmental impacts, describes methods for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

Of note, the BAAQMD's most recent update to its CEQA Guidelines (2022 CEQA Guidelines) was adopted in April 2023 (BAAQMD 2023), after certification or approval of the prior CEQA documents considered in this Addendum. Thus, specific topics and thresholds are now addressed that were not previously required when the prior CEQA documents were prepared. The CEQA guidelines provide recommended quantitative significance thresholds along with direction on recommended analysis methods. The BAAQMD states that the quantitative significance thresholds are "advisory and should be followed by local governments at their own discretion," and that lead agencies are fully within their authority to develop their own thresholds of significance. However, the BAAQMD offers these thresholds for lead agencies to use to inform environmental review for development projects in the Bay Area. Lead agencies may also reference the *CEQA Thresholds Options and Justification Report* developed by the BAAQMD staff in 2009 and included as Appendix A to the 2022 CEQA Guidelines.

According to the CEQA Guidelines, a project would be considered to have a significant impact to existing air quality conditions within the SFBAAB if emissions and health risk hazards from

construction and operation of a project were to exceed the significance thresholds shown in **Table 3.3-1**.

To determine the significance of fugitive dust emissions, the BAAQMD recommends taking a qualitative approach. According to the BAAQMD CEQA Guidelines, a project would have a less-than-significant impact with regard to emissions of fugitive dust if it were to implement the *Basic Best Management Practices (BMPs) for Construction-Related Fugitive Dust Emissions* recommended by the BAAQMD in Section 5.2.2 of the BAAQMD 2022 CEQA Guidelines (BAAQMD 2023).

**TABLE 3.3-1
BAAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS**

Criteria Air Pollutants			
	Construction Thresholds Average Daily Emissions (lbs./day)	Operational Thresholds Average Daily Emissions (lbs./day)	Operational Thresholds Annual Average Emissions (tons/year)
ROG, NO _x , PM _{2.5}	54 ^a	54	10
PM ₁₀	82 ^a	82	15
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust (PM _{2.5} , PM ₁₀) ^b	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards			
	Construction Thresholds	Operational Thresholds	
Excess Cancer Risk	10 per one million	10 per one million	
Chronic or Acute Hazard Index	1.0	1.0	
Incremental annual average PM _{2.5}	0.3 µg/m ³	0.3 µg/m ³	

NOTE: µg/m³ = micrograms per cubic meter; CO = carbon monoxide; lbs/day = pounds per day; NO_x = oxides of nitrogen; PM_{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ppm = parts per million; ROG = reactive organic gases; TACs = toxic air contaminants; tpy = tons per year; VMT = vehicle miles traveled.

^a Construction emissions PM₁₀ and PM_{2.5} thresholds are for exhaust emissions only.

^b The BAAQMD strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses.

SOURCE: BAAQMD 2023

BAAQMD 2017 Clean Air Plan

The *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) was adopted on April 19, 2017, by the BAAQMD in cooperation with the Metropolitan Transportation Commission, the San Francisco Bay Conservation and Development Commission, and the Association of Bay Area Governments to provide a regional strategy to improve air quality within the SFBAAB and meet public health goals (BAAQMD 2017b). The control strategy described in the 2017 Clean Air Plan includes a wide range of control measures designed to: 1) reduce

emissions and lower ambient concentrations of harmful pollutants, 2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and 3) reduce greenhouse gas emissions (GHGs) to protect the climate.

The 2017 Clean Air Plan addresses four categories of pollutants including ground-level ozone and its key precursors: ROG and NOX; PM, primarily PM2.5, and precursors to secondary PM2.5; air toxics; and GHG emissions. The control measures are categorized based on the economic sector framework including stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, and water. The air district has permit authority over most types of stationary emission sources and can require stationary sources to obtain permits, and can impose emission limits, set fuel or material specifications, or establish operational limits to reduce air emissions. The air district also regulates new or expanding stationary sources of TACs and requires air toxic control measures for many sources emitting TACs.

Prior CEQA Documents' Findings

The General Plan EIR identified less-than-significant impacts for consistency with the Clean Air Plan to reduce GHG emissions and regarding odors. However significant impacts were identified, even with the implementation of mitigation measures, General Plan policies, and compliance with adopted regulations for criteria air pollutant emissions during construction and operations. (2017 General Plan EIR section 4.3.) Per the Addendum to the General Plan EIR (verbatim text shown italicized), *after analyzing the impacts on air quality as a result of the development proposed in the General Plan EIR, it was concluded that despite mitigation measures being applied, the cumulative impacts would remain significant. The proposed Housing Element, which includes 2,448 additional housing units, would not surpass the City's anticipated buildout as assessed in the General Plan EIR. Mitigation measures would still be implemented, and the impacts evaluated in the General Plan EIR are sufficient to cover those associated with the proposed Housing Element. Generally, an increase in housing density results in a reduction in vehicle miles traveled (VMT), which also results in fewer emissions.* (2024 Addendum p. 60).

Neither the air quality impacts disclosed in the Addendum, nor disclosed in the Revised IS/MND for the Zoning Update (2021 IS/MND section 4.3), exceed the air quality impacts identified in the General Plan EIR. Certain General Plan EIR mitigation measures apply to the proposed Project, as below.

Discussion

- a) **Less Than Significant.** The 2017 Clean Air Plan is the applicable air quality plan for the SFBAAB within which the Project area is located. The BAAQMD CEQA Guidelines recommend that a project's consistency with the adopted air quality plan be evaluated using the following three criteria:

- 1) The project supports the goals of the air quality plan;
- 2) The project includes applicable control measures from the air quality plan; and

- 3) The project does not disrupt or hinder implementation of any control measures from the air quality plan.

The primary goals of the 2017 Clean Air Plan are to protect air quality and public health at the regional and local scale and protect the climate by reducing regional criteria air pollutant emissions and reducing local air quality-related health risks (by meeting State and national ambient air quality standards). To meet these goals, the 2017 Clean Air Plan includes 85 control measures aimed at reducing air pollutants in the SFBAAB. These control measures are grouped into the following sectors: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, and waste management.

The vast majority of the control measures included in the 2017 Clean Air Plan are not directly applicable to the Project, because they target facilities or land uses that do not currently exist on the Project site or are not a part of the Project (e.g., energy generation, waste management, agricultural, forest or pasture lands); vehicles or equipment that would not be employed in the Project area (e.g., airplanes, farming equipment); and/or involve rulemaking or other actions under the jurisdiction of agencies not directly involved with design and approval of the Project and its related actions. For example, the Agriculture, Natural and Working Lands, and Water measures address emissions sources not applicable to the Project, but rather the BAAQMD's own programs and regional air quality planning and are less applicable to local agencies' decisions and projects. The Project would be consistent with, and not obstruct the implementation of the following applicable control measures:

- **Control Measure SS36: PM from Trackout**, which called for the development and adoption of BAAQMD Rule 6, Regulation 6: Trackout. The Project would comply with this adopted regulation and others applicable to the activities being proposed.
- **Control Measure SS38: Fugitive Dust**, which identifies the need for the BAAQMD to consider applying the Air District's proposed fugitive dust visible emissions limits to a wider array of sources. Although this Control Measure identifies an action item on the Air District's part, the Project would not conflict with this Control Measure, because the Project would comply with Sections 2.5.4, 2.5.7, and 2.10 of the 2011 City of Vallejo Standard Specifications, which address earthwork operations of material movement, dust, and erosion control measures.
- **Control Measure BL2: Decarbonize Buildings**, which identifies the need for the BAAQMD to evaluate regulatory options for phasing out fossil fuel-based heating systems and incentivize zero-carbon alternatives. Although this Control Measure identifies an action item on the Air District's part, the Project would not conflict with this Control Measure, because the Project would be constructed as all-electric with no natural gas hookups.

As indicated above, the Project would not hinder, or delay implementation of any applicable control measures contained in the 2017 Clean Air Plan. Therefore, the Project would be considered to support the primary goals of the 2017 Clean Air Plan and this

impact would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

b)

Construction

Less Than Significant. Construction-related emissions are considered short-term in duration; nevertheless, construction emissions can represent a significant adverse impact on air quality. During construction, the Project would generate emissions of criteria air pollutants from operation of heavy-duty construction equipment, operation of worker vehicles and haul trucks, excavation of materials, paving activities, and application of architectural coatings. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1 and then compared to the BAAQMD's applicable regional significance thresholds. Project-specific information was provided by the Project applicant including project size and anticipated construction start date⁶. Where Project-specific data was not available, CalEEMod defaults were used. Detailed modeling assumptions are included in **Appendix A** in this document.

Construction of the Project is anticipated to begin in 2026 and anticipated to become operational in 2028. The Project would include demolition of all existing structures and would require 13,700 building square feet of demolition debris off-haul and export of approximately 5,000 cubic yards of material from the site. As described in the Project Description (Section 2 of this document), the Project applicant's contractors will use off-road diesel construction equipment compliant with U.S. EPA Tier 4 Final non-road engine standards for all applicable equipment. Prior to the commencement of construction activities, the Project contractor will prepare an equipment list that identifies each piece of off-road equipment to be operated at the Project site by its equipment identification number (EIN) and demonstrates that each piece of equipment meets U.S. EPA Tier 4 Final non-road engine standards. The Project contractor will make the list available at the construction site, and the list will be updated when new or replacement construction equipment are brought to the site.

The average daily construction emissions are compared to the BAAQMD thresholds of significance and presented in **Table 3.3-2**.

⁶ Construction modeling assumptions include the Project's characteristics of 130 single family dwelling units (424,038 building square feet), bioretention basin (39,493 square feet), storm detention basin (60,577 square feet), parking spaces and roads (226,866 square feet),

**TABLE 3.3-2
PROJECT EMISSIONS FROM CONSTRUCTION**

Average Daily Construction Emissions^a	ROG (ppd)	NO_x (ppd)	PM₁₀ Exhaust (ppd)	PM_{2.5} Exhaust (ppd)
2026	0.51	3.98	0.10	0.10
2027	30.10	2.94	0.10	0.10
BAAQMD Thresholds	54	54	82	54
Significant (Yes or No)?	No	No	No	No

NOTE: ppd= pounds per day

^a Emissions are average daily pounds per day and are estimated by dividing the annual construction emissions generated by the Project in 2026 and 2027 by the total number of construction workdays in each year.

SOURCE: Appendix A

As shown in Table 3.3-2, construction emissions from the Project would not exceed the BAAQMD's regional criteria air pollutant thresholds.

Regarding the emissions estimates in Table 3.3-2, the BAAQMD considers fugitive dust emission generated by construction activities to be potentially significant, regardless of the quantity of PM emitted, unless the BAAQMD's recommended fugitive dust BMPs are implemented or other construction dust ordinance. As described in Impact a), the Project would comply with the City of Vallejo Standard Specifications and incorporate dust control measures to reduce this effect to a less than significant level. This impact is substantially less than the significant and unavoidable impacts regarding construction-period criteria air pollutant emissions identified in the prior CEQA documents.

This assessment fulfills the General Plan's directives in **Mitigation Measure AQ-2a** (*Pre-Construction Air Quality Technical Evaluation*); **Mitigation Measure AQ-2b.1** (*Compliance with BAAQMD Control Measures*); and **Mitigation Measure AQ-2b.2** (*Pre-Construction AQ Technical Evaluation*) that individual project-level review be conducted for site-specific and project-specific characteristics to determine if additional mitigation measures are warranted; no additional mitigation measures are required for the proposed Project. Although implemented in this analysis, this Addendum for the proposed Project conservatively identifies that the aforementioned General Plan EIR mitigation measures are still applicable to the Project. Moreover, the construction activity of the proposed Project was already factored into the General Plan and Housing Element Update program, therefore the proposed Project would not increase the development previously considered.

Operations

Less Than Significant. During operation, the Project would generate emissions from mobile sources (e.g. vehicle trips), area sources (e.g. use of landscaping equipment, reapplication of architectural coatings, use of consumer products), and off-road equipment usage (e.g. forklift). The Project would be "all electric"; therefore, there would be no direct criteria air pollutant emissions from building energy use. CalEEMod version

2022.1.1, was used to estimate operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5} that would result from of the Project.

The operational emissions are compared to the BAAQMD thresholds of significance and presented in **Table 3.3-3**. As shown in Table 3.3-3, operational emissions from the Project would not exceed BAAQMD's regional criteria air pollutant thresholds and no mitigation would be required.

**TABLE 3.3-3
OPERATIONAL EMISSIONS**

Source	ROG (ppd/tpy)	NO _x (ppd/tpy)	PM ₁₀ (ppd/tpy)	PM _{2.5} (ppd/tpy)
Mobile Source Emissions	4.66 / 0.85	4.33 / 0.79	7.84 / 1.43	2.03 / 0.37
Area Source Emissions	11.07 / 2.02	0.05 / 0.01	<0.01/<0.01	<0.01/<0.01
Off-Road Emissions	0.11 / 0.02	1.15 / 0.21	0.05 / 0.01	0.05 / 0.01
Total Emissions	15.84 / 2.89	5.53 / 1.01	7.89 / 1.44	2.08 / 0.38
BAAQMD Thresholds (lbs/ day tons/year)	54 / 10	54 / 10	82 / 15	54 / 10
Significant (Yes or No)?	No	No	No	No

NOTE: ppd = pounds per day; tpy = tons per year

Totals may not add up due to rounding.

SOURCE: Appendix A

In summary, as shown in Tables 3.3-2 and 3.3-3, the Project would not generate emissions that would exceed the BAAQMD thresholds of significance for construction and operational emissions. Also, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment. This impact would be less than significant, which is less severe than the significant and unavoidable criteria pollutant impacts identified in the prior CEQA documents.

- c) **Less than Significant.** When the General Plan EIR was prepared, BAAQMD performance standards were not considered regarding potential effects of mobile sources toxic air contaminants (TACs) generated by development construction. The potential for the proposed Project to expose sensitive receptors to substantial pollutant concentrations of TACs is included in the Addendum analysis for informational purposes; the addition of this significance threshold since preparation of the General Plan EIR is not considered a substantial change or new information of substantial importance pursuant to CEQA Guidelines Section 15162.

The Project site is surrounded by sensitive receptors to the north and west. The nearest sensitive receptors include residences on Hargus Avenue, Dryden Drive, and Rollingwood Drive located as close as 30 to 150 feet from the Project site. The nearest off-site worker receptor is located 300 feet from the Project site at Skyview Memorial

Lawn. There are no schools or daycares located within 1,000 feet of the Project site boundaries.

The potential for the Project to expose sensitive receptors to substantial pollutant concentrations of TACs is associated mainly with construction activities, which involve diesel combustion in construction equipment and heavy-duty trucks generating DPM. DPM is considered as a TAC by CARB with cancer and chronic non-cancer risks from exposure. $PM_{2.5}$ from exhaust and fugitive dust is also regulated by the BAAQMD as a TAC due to its health impacts. BAAQMD recommends that a health risk assessment (HRA) be conducted when sensitive receptors are located within 1,000 feet of project construction activities. As discussed earlier, sensitive receptors in the vicinity of the Project site include residences located as close as 30-150 feet on Hargus Avenue, Dryden Drive, and Rollingwood Drive. Trucks would likely travel along the Rollingwood Drive, to access the Project site.

A construction HRA was prepared for the Project to evaluate the health risk impacts of TAC emissions generated by the Project. The construction HRA estimated the excess lifetime cancer risk and chronic hazard index (HI) from DPM exposure, and annual average $PM_{2.5}$ concentrations from Project construction. The TACs included in the HRA were limited to DPM and $PM_{2.5}$ exhaust emissions from heavy construction equipment and trucks. Emissions of PM_{10} exhaust are used as a surrogate for DPM emissions.⁷ Emissions resulting from operations would be mainly associated with gasoline-powered passenger cars with much lower associated health risks than those from DPM. Therefore, operational health risks from gasoline-powered residential trips are not analyzed.

The HRA was conducted using the U.S. EPA AERMOD dispersion model (version 24142) and meteorological data from the Vallejo BAAQMD Meteorological Site to predict conservative concentrations at specific locations defined by a discrete Cartesian system⁸. The initial run assumed diesel construction equipment would be used during the site preparation, grading, building construction, paving, and architectural coating phases, on a 17.3-acre area. A conservative representation of the on-site construction equipment at the Project site was modeled as a polygon area source, based on the site planning diagrams. The modeling parameters are as follows:

- One polygon area source representing construction equipment operating over the Project site with;
 - Release height of 5 meters for construction equipment exhaust;
 - Initial vertical dimension of 1.4 meters; and

⁷ OEHHA guidance indicates that the cancer potency factor to be used to evaluate cancer risks were developed based on whole (gas and particulate matter) diesel exhaust, and that the surrogate for whole diesel exhaust is DPM, with PM_{10} serving as the basis for the potential risk calculations.

⁸ Refined modeling commonly uses Cartesian receptor grid, which is defined by an origin with receptor points evenly (uniform) or unevenly (nonuniform) spaced around the origin. A Cartesian grid is designed with a receptor spacing of 20 meters out to a minimum distance of 325 meters (1,000 feet) from the property boundary.

- Construction emissions occurring only between the weekday hours of 7:00 a.m. and 7:00 p.m., weekend hours of 9:00 a.m. and 6:00 p.m.;

A line-volume source representing the haul truck route along Rollingwood Drive with:

- Release height of 3.4 meters for haul truck exhaust;
- Plume height of 6.8 meters;
- Plume width of 10.0 meters and;

Receptor flagpole height of 1.5 meters (ground-level receptor at breathing height).

All sources were initially modeled with an emission rate of one gram per second to obtain a dispersion factor (unit concentration) at each modeled receptor location. The DPM and PM_{2.5} concentrations were calculated using the dispersion factors and the PM₁₀ and PM_{2.5} emissions from the CalEEMod outputs.

Lifetime excess cancer risk and non-cancer chronic HI were calculated using the resulting DPM concentrations along with equations and factors from the Office of Environmental Health Hazard Assessment (OEHHA) 2015 Risk Assessment Guidelines and Appendix E of the 2023 BAAQMD CEQA Guidelines (OEHHA 2015; BAAQMD 2023). Model outputs and the health risk calculations are included in Appendix A.

Health risks were evaluated at all potential nearby off-site sensitive and worker receptors, and the results are presented for the maximally exposed individual receptor for resident and worker land uses. The maximally exposed individual resident (MEIR) is a residence approximately 30 feet north of the Project site, along Dryden Drive. The maximally exposed individual worker (MEIW) is located approximately 200 feet east of the Project site, along Rollingwood Drive.

Table 3.3-4 presents lifetime excess cancer risk, annual average PM_{2.5} concentrations, and chronic HI at the maximally exposed individual resident and maximally exposed individual worker receptors.

TABLE 3.3-4
INITIAL MAXIMUM EXCESS LIFETIME CANCER RISK, ANNUAL AVERAGE PM_{2.5} CONCENTRATIONS, AND
CHRONIC HAZARD INDEX, AT RECEPTOR LOCATIONS

Receptor	Cancer Risk (# in 1 million)	PM_{2.5} Concentration (µg/m³)	Chronic Hazard Index (unitless)
MEIR	12.07	0.12	0.01
MEIW	< 1	0.04	<0.01
BAAQMD Threshold	10	0.3	1.0
Significant?	Yes	No	No

MEIR = maximally exposed individual receptor

MEIW = maximally exposed individual worker

µg/m³ = micrograms per cubic meter; PM_{2.5} = particulate matter with a diameter less than or equal to 2.5 microns

SOURCE: Data compiled by Environmental Science Associates, April 2025. Appendix A

As presented in Table 3.3-4, DPM exposure from Project construction would result in an incremental lifetime cancer risk of 12.07 in one million at the MEIR which would exceed the BAAQMD threshold of 10 in one million. Chronic HI and annual average PM_{2.5} concentration at the MEIR would both be below the respective BAAQMD thresholds. Project construction would result in health risks below the respective BAAQMD thresholds with respect to incremental lifetime cancer risk, annual average PM_{2.5} concentration and chronic HI at the MEIW.

Although the unmitigated chronic health hazard index and annual PM_{2.5} concentrations at the MEIR would be less than the BAAQMD thresholds, the unmitigated incremental lifetime residential cancer risk at the MEIR would exceed the significance threshold. However, the Project's proposed use of off-road diesel construction equipment complies with U.S. EPA Tier 4 Final non-road engine standards is assumed for all applicable equipment used for the Project, the maximum cancer risk, PM_{2.5} concentration, and chronic HI at the MEIR would not exceed thresholds, as shown in Table 3.3.5.

TABLE 3.3-5
MAXIMUM EXCESS LIFETIME CANCER RISK, ANNUAL AVERAGE PM_{2.5} CONCENTRATIONS, AND
CHRONIC HAZARD INDEX, AT RECEPTOR LOCATIONS

Receptor	Cancer Risk (# in 1 million)	PM_{2.5} Concentration (µg/m³)	Chronic Hazard Index (unitless)
MEIR	2.04	0.05	<0.01
MEIW	< 1	0.02	<0.01
BAAQMD Threshold	10	0.3	1.0
Significant?	No	No	No

MEIR = maximally exposed individual receptor

MEIW = maximally exposed individual worker

µg/m³ = micrograms per cubic meter; PM_{2.5} = particulate matter with a diameter less than or equal to 2.5 microns

SOURCE: Data compiled by Environmental Science Associates, April 2025. Appendix A

As shown in Table 3.3-5, with the proposed Project, the maximum incremental lifetime residential cancer risk at the MEIR would decrease to 2.04 in one million, falling below the BAAQMD's significance threshold. As a result, health risks associated with Project construction would be less than significant.

As stated above in the Addendum to the General Plan EIR, the proposed Project development is within the anticipated buildout evaluated in the General Plan EIR or its Addendum for the Housing Element Update. The Project impact would be less than significant and also would not exceed the significant and unavoidable air quality impacts identified in the General Plan EIR, although this topic was not previously considered under CEQA and applicable BAAQMD thresholds. (Note: The following health-risk-related mitigation measures identified in the General Plan EIR do not apply to the proposed Project: MM AQ-3a (*HRA for Non-Residential Land Uses*) and MM AQ-3 (*HRA for [Locating] Sensitive Land Uses*).)

- d) **Less than Significant.** Diesel exhaust from on-site construction equipment would result in temporary and localized odors. Construction activities would be distributed over the entire Project site, localized only in the immediate vicinity of construction equipment, would disperse quickly over time and space and is not expected to carry over to any receptors beyond the Project site. The Project would not generate emissions, including those leading to odors, that would adversely affect a substantial number of people. This impact would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents which contemplated construction and operation of the proposed Project.

Summary

Based on the above air quality analysis, the proposed Project would not result in new significant or substantially more severe significant air quality impacts identified in the prior CEQA documents. No new mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.4 Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
BIOLOGICAL RESOURCES — Would the project:			
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☒	☐	☐

Prior CEQA Documents' Findings

The Addendum to the General Plan EIR states (verbatim text shown italicized) that the General Plan EIR *identified a less-than-significant impact on any local policies or ordinances protecting biological resources and would have no impact on the approved local habitat conservation plan. Impacts associated with biological resources and wetlands under the General Plan are considered less than significant with implementation of the General Plan EIR's mitigation measures.* The Addendum to the General Plan EIR also identified that *future development from the proposed Housing Element [Update] would be required to comply with identified mitigation measures and existing State and local regulatory framework, including General Plan policies.* (2024 Addendum p.60; 2017 General Plan EIR section 4.3)

The Revised IS/MND for the Zoning Update identified the same less-than-significant impacts identified in the General Plan EIR and Addendum, including with mitigation, including updated policies. (2021 IS/MND section 4.4)

Discussion

- a) **Less than Significant.** The Project site is located within the geographic range of several listed and special-status species (CDFW, 2025; USFWS, 2025; CNPS, 2025), which occur in the regional project vicinity. Species with potential to occur at the site are listed in Appendix B.

Plants

Nine rare plant species, including one listed plant, Contra Costa goldfields, were considered to have potential to occur at the site. However, biological surveys conducted in 2022 and 2023 (Madrone 2022a and 2023) did not identify any rare plant species on the site, and the disturbed nature of the grassland habitat onsite, lack of serpentine and natural clay hardpan, reduce the potential for rare plants to be present. Thus, no impacts to rare plants are expected.

Invertebrates, Reptiles and Amphibians

Seasonal wetlands and depressions onsite were investigated for potential vernal pool fairy shrimp habitat (Madrone 2023) and the results were negative. No suitable habitat is present onsite for California red-legged frog (*Rana draytonii*) (federally listed threatened [FT] and California Species of Special Concern [SSC]), California tiger salamander (*Ambystoma californiense*) (FT and state-listed threatened [ST]), and northwestern pond turtle (*Actinemys marmorata*) (federal proposed threatened and SSC). The site would be unlikely dispersal habitat for these species given that it is as an infill parcel. Thus, these species are not expected to be present and would not be impacted by the Project.

Birds

Smaller nesting birds may use the shrubs and trees onsite for nesting habitat and raptors have potential to nest in the larger trees. Burrowing owls occur in association with ground squirrel burrows in open grasslands and have high potential to occur in the gently sloping grassland onsite, though no owl sign was observed at these burrows during biological surveys. Other special-status nesting birds such as white-tailed kite (fully protected [FP]), as well as common migratory birds, including mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), western scrub jay (*Aphelocoma californica*), and house finch (*Haemorrhous mexicanus*) may nest in trees and shrubs on the Project site and forage in the grassland. If vegetation were cut during active nesting season, these birds could be impacted by the Project.

Removal of vegetation containing nests could result in reduced nest fitness, individual mortality, or the loss of eggs or young during nesting season. Ground disturbance impacting rodent burrows could harm burrowing owl nests and young. Noise, light,

vibration, or other disturbance during construction could disturb nesting birds and result in nest abandonment and loss. Actively nesting migratory birds are protected under the Migratory Bird Treaty Act and California Fish and Game Code (FGC) 3503, and “take” of an individual, nest, or egg would constitute a significant impact.

As described in the Project Description section of this document, the proposed Project incorporates all regulatory permit requirements to avoid potential impacts to nesting migratory birds and burrowing owl, supplementing General Plan EIR **Mitigation Measure BIO-1** (*Pre-Construction Surveys [Plants and Wildlife] and Biological Monitoring*). In particular, the proposed Project will prepare required pre-construction nesting surveys, surveys of grassland rodent burrows to identify burrowing owl activity and establish no-work buffers varying by the location and species of bird, for the duration of nesting. Specifically, the proposed Project includes the following standard avoidance measures:

Project Actions for Protection of Nesting Birds

- The Project will avoid tree and vegetation removal or pruning associated with Project construction ground disturbance and commencement of outdoor project construction activities from February 1 through August 31, the primary local bird nesting season, to the extent feasible. If tree and vegetation removal or pruning associated with Project construction is proposed during the nesting period, within seven days prior to the proposed start of construction activities, a qualified Project biologist will conduct a nesting bird survey of all potential habitat at the construction site and within 250 feet of the perimeter of the construction site.
- If any active nests are detected during the pre-construction survey, the qualified Project biologist will recommend a work-exclusion buffer zone that will be designated around the active nest to allow for the successful fledging of the birds. Typical nest buffers are 100 feet for passerine birds, depending upon the nature of proposed activities and the sensitivity of the identified bird to disturbance, and 150 to 250 feet for raptors. Construction activities will be avoided or modified within the buffer area until young birds have fledged, which will be confirmed by the qualified biologist. Buffer sizes may be reduced from the initially established distances following review by the qualified biologist and/or coordination with CDFW.

Project Actions for Protection of Burrowing Owl

- The Project applicant shall contract a qualified biologist to conduct a pre-construction survey for burrowing owls 14 to 30 days prior to construction in accordance with current CDFW protocol (CDFG 2012). The survey will cover all accessible grassland areas within 500 feet of the area to be disturbed by construction, checking for adult and juvenile burrowing owls and signs of burrowing owl occupation (e.g., whitewash, pellets, bones, or feathers). If no owl sign is found during the pre-construction survey, no further action is required.
- If owls or owl sign is found, the Project biologist will coordinate with the City to establish construction exclusion areas around occupied burrows onsite within which no disturbance shall occur. During the non-breeding season (September 1 through January 31), the exclusion area(s) will extend 160 feet around all

occupied burrows. During the breeding season (February 1 through August 31), the exclusion area(s) will extend 250 feet around all occupied burrows. If burrow avoidance is infeasible, the Project biologist will consult with CDFW regarding the potential for take of burrowing owl and comply with any Incidental Take Permit issued by CDFW.

Mammals

Terrestrial special-status mammal species are not expected on the Project site, which is located in a developed area. However, bat species recorded in the vicinity, including Townsend's big-eared bat (*Corynorhinus townsendii*), hoary bat (*Lasiurus cinereus*) and pallid bat (*Antrozous pallidus*), may roost in cavities or bark of mature trees. The mature eucalyptus trees onsite may require removal. If roosting bats were present in these trees, they could be killed or injured. Harm to roosting bats protected by California Fish and Game Code would be a significant impact.

As described in the Project Description of this document, the proposed Project also incorporates all applicable standard construction techniques to avoid potential impacts to bat species, further supplementing **Mitigation Measure BIO-1** in the General Plan EIR. The Project will conduct bat surveys in suitable habitat and will implement a bat-safe tree removal process. Specifically, the Project includes the following:

Project Actions for Protection of Roosting Bats

- Prior to project construction, the Project applicant will engage a qualified bat biologist to conduct a pre-construction survey in potential bat habitat in trees to be removed or pruned and structures to be demolished within the work area. Surveys will be conducted within 1 month prior to construction. If no roosting bats are found, no further action will be required. If active bat roosts are found, these roosts will be flagged and avoided with a suitable buffer, determined in coordination with CDFW. Removal or trimming of trees showing evidence of bat hibernation or maternity activity will occur during the period least likely to affect inactive wintering bats and active bat maternity roosts (i.e., avoid roost disturbance from October 15 to February 15 for winter hibernacula, and April 15 to August 15 for maternity roosts).
- If a non-maternal roost of bats is found in a tree or structure to be removed or demolished as part of project construction, the individuals will be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity. Removal or demolition would occur no sooner than at least two nights after the initial minor site modification (to alter airflow). Departure of the bats from the construction area will be confirmed with a follow-up survey by a qualified bat biologist prior to start of construction.

The incorporation of standard construction techniques into the proposed Project would result in a less-than-significant impact, consistent with the impact conclusions in the prior CEQA documents.

- b) **No Impact.** Sensitive natural communities at the Project site were evaluated during surveys in 2022 (Madrone, 2022a, 2022b) and subsequently during the 2025

reconnaissance survey. No riparian habitat was observed on the site during surveys. However, a drainage ditch with associated emergent marsh wetland was present along the northern boundary of the Project site (Madrone 2022a, 2022b). A large wetland feature was also visible offsite to the south of the parcel (Figure 2, Madrone 2022b). Project construction would avoid direct impacts to these features. Thus, there would be no impact to sensitive natural communities.

- c) **Less than Significant.** The federal government defines and regulates waters, including wetlands, in Section 404 of the Clean Water Act (CWA). Wetlands are “areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b] and 40 CFR 230.3). Seasonal wetland features were present in the center of the site, likely human-induced from excavation and drainage installed for the ball fields, and subsequent lack of maintenance. The 2022 biological review identified three features in the center of the site (Figure 2) and estimated the total area of these features as 0.19-acre (Madrone 2022a). The brachiopod dry-season survey showed four features (Madrone 2022b), and the reconnaissance survey in 2025 identified two features. These wetlands are hydrologically isolated and thus would not be considered federal jurisdictional waters; however, they may be considered Waters of the State of California under the Porter Cologne Act and Fish and Game Code.

A jurisdictional wetland delineation has not been conducted onsite in the past five years. The Project applicant has initiated the process to confirm the presence or absence of jurisdictional features on the property and will obtain state and federal permits from the U.S. Army Corps of Engineers, the RWQCB, and/or CDFW for activities within the applicable agency's jurisdiction if required. The Project will also apply for and obtain a CDFW Lake and Streambed Alteration Agreement (Section 1602) if the Project affects the emergent marsh and channel on the northern boundary of the site.

Because seasonal wetland features would be permanently removed for construction of the Project, the Project will employ adequate replacement mitigation (compensatory mitigation) or conduct habitat restoration of temporarily impacted areas, if applicable. Specifically, the Project design will avoid or minimize the temporary and permanent loss of potentially jurisdictional aquatic habitat. If temporary or permanent impacts to 0.19 acres of wetland features cannot be avoided, the applicant will proceed in accordance with the General Order for Waste Discharge Requirements. The applicant will be required to secure mitigation for fill of wetlands and waters of the State which may include the purchase of wetland mitigation credits from an approved mitigation bank to offset impacts to a no net loss standard if required as part of the permitting process.

The incorporation of standard avoidance and minimization measures into the proposed Project to address potential State jurisdictional features that would result in a less-than-significant impact, consistent with the biological resources impacts identified in the prior CEQA documents.

- d) **Less than Significant.** The 201 Rollingwood Project site is surrounded by rural residential development, a cemetery, and a major road. Although the open spaces in these areas may be used by common wildlife species such as mule deer (*Odocoileus hemionus*) and raccoon (*Procyon lotor*) and by foraging birds such as raptors, the area lacks connection to parks or designated open space areas. Therefore, it does not provide a valuable wildlife corridor for terrestrial mammals. Similarly, the potential seasonal wetlands are unlikely to hold water for long periods, and thus are unlikely to draw amphibian species from nearby wetlands on adjacent property. The site also lacks woodland habitat for migratory bird stopovers, though migratory birds may occasionally nest in the trees and vegetation onsite. Bats may also occasionally roost in site trees. The Project includes actions supplemental to protect nests of protected migratory bird species and bat roosts, as discussed above. Overall, the site lacks connectivity for use as a wildlife corridor, and lacks cover for use as a nursery site. Thus, impacts would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- e) **Less than Significant.** The Project site contains two large eucalyptus trees, four pines (*Pinus* sp.), and additional small ornamental trees. Numerous additional trees are present along the northern and southern boundaries, which would not be impacted by Project construction. The City would comply with its Tree Ordinance (Vallejo Municipal Code chapter 10.12), as well as General Plan policies protecting biological resources. Also, the proposed Project will adhere to regulations focused on the protection of trees during construction (Vallejo Municipal Code chapter 16.504.07) Thus, with adherence to the City's Tree Preservation Ordinance, impacts under this criterion would be less than significant, with no mitigation required, which is consistent with and the conclusions identified in the prior CEQA documents.
- f) **No Impact.** As of March 2025, the Solano Multi-Species Habitat Conservation Plan had not yet been adopted. Accordingly, the Project is not within an area subject to any Habitat Conservation Plan adopted pursuant to the federal Endangered Species Act, or any Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan; thus, there would be no impact, which is consistent with the conclusions identified in the prior CEQA documents.

Summary

Based on the above biological resources analysis, the proposed Project would not result in new or substantially more severe significant biological resources impacts identified in the prior CEQA documents. No new mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.5 Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
CULTURAL RESOURCES — Would the project:			
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☒	☐	☐

Setting

Background Research

ESA conducted a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System on January 24, 2025 (File No. 24-1084). The purpose of the records search was to (1) determine whether known cultural resources have been recorded within or in the vicinity of the Project site; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification and preliminary evaluation of cultural resources. Additional archival research included analysis of parcel records and available historical aerial imagery and topographic maps accessible through the Nationwide Environmental Title Research (NETR) databases. The records search consisted of an examination of the following documents:

- NWIC digitized base maps (USGS *Benicia, California* 7.5-minute topographic map), to identify recorded archaeological sites and studies within a 0.5-mile radius of the Project site.
- NWIC digitized base maps (USGS *Benecia, California* 7.5-minute topographic map), to identify recorded historic-era resources of the built environment (building, structures, and objects) within a 0.5-mile radius of the Project site.
- Resource Inventories: *California Inventory of Historical Resources, California Historical Landmarks, Built Environment Resource Directory* (BERD) (through January 2020) and *Archaeological Determinations of Eligibility* (as of April 2012) for Solano County.
- NETR database topographic maps encompassing the Project site spanning 1898 through 2012 (18 maps).
- NETR database aerial imagery covering the Project site spanning 1948 through 2012 (14 images).

The NWIC records search indicates that no cultural resources have been previously recorded in the Project site. The nearest previously documented cultural resource (P-48-001040) consists of an active cemetery that was established in 1856 (King, 1988) and is located approximately 700

feet south of the Project site; this resource would not be impacted by the Project. The nearest previously documented pre-contact resource is situated approximately 1.75 miles south of the Project site (Zickler-Martin and Joy, 2021); this resource would also not be impacted by the Project.

Review of available historic topographic maps and aerial images found that prior to the mid-1900s, the Project site was used for agriculture. In 1957, a baseball field is visible on an aerial photograph north of Benecia Road and adjacent to the southwest of the Project site. Relatively few distinguishable modifications appear to have been made to the Project site and immediate vicinity until between ca. 1965 and 1968. During this period, four baseball fields were constructed within the Project site. By 1968, a small ancillary building correspondent to the extant and abandoned concessions stand on Rollingwood Drive, is depicted in aerial imagery. An addition to the ancillary building was constructed along its south façade between 1982 and 1987. The baseball field complex was used seasonally by the City of Vallejo's East Vallejo Little League from the late 1950s to the early 2000s.

Historic Architectural Resources

Collectively, the baseball fields, concessions stand, and associated parking and access paths comprise the baseball field complex. ESA evaluated the complex for eligibility, with the recommendation that the complex is not eligible for the California Register of Historical Resources (California Register). The evaluation is documented in a Department of Parks and Recreation (DPR) 523A Primary Record Form, included as **Appendix C** to this Checklist. Preliminary research indicates that the Project site was one of many agricultural parcels in eastern Vallejo that were sold and developed for residential or recreational purposes during the post-World War II period. According to an 1896 topographic map, the Project site and vicinity were improved with several dispersed rural residences and small-scale agricultural operations by the end of the nineteenth century. A review of subsequent aerial photographs indicates that the Project site was used for agricultural purposes until the 1950s. Relatively few distinguishable modifications appear to have been made to the Project site and immediate vicinity until between ca. 1965 and 1968. During this period, four baseball fields were constructed on the Project site and adjacent parcel. By 1968, a small ancillary building (the extant concessions stand) with a rectangular footprint and what appear to be two smaller ancillary structures (no longer extant), are present on the west side of Rollingwood Drive. An addition to the ancillary building was constructed along its south façade between 1982 and 1987. The baseball field complex was used seasonally by the City of Vallejo's East Vallejo Little League from the late 1950s to the early 2000s.

The baseball field complex is associated with local patterns of recreational development in Vallejo during the mid-twentieth century, but not in an individually significant way and does not appear to possess significance under California Register Criterion 1. Preliminary archival review does not indicate that there are any significant associations between the complex and significant persons in the past and therefore does not appear to possess significance under California Register Criterion 2. The complex was constructed as a seasonal Little League Baseball concession stand ca. 1965–1968 and no specific architect or designer is associated with the complex, nor does it appear to be the work of a master architect. The baseball field complex does not appear to possess

significance under California Register Criterion 3. Finally, the complex does not appear to possess significance for data potential under California Register Criterion 4. Additionally, the City of Vallejo maintains local criteria for designation of historical resources (Vallejo Municipal Code Chapter 16.614) to recognize resources that have architectural, cultural, educational, or historical value. The baseball field complex does not meet any of these criteria for local listing. Therefore, the baseball field complex does not constitute a formal historical resource for the purposes of CEQA (ESA, 2025a).

Archaeological Resources

ESA completed a cultural resources pedestrian survey of the Project site on January 29, 2025. The survey methodology entailed walking the ground surface in parallel transects of 30 feet and preparing photographic and narrative descriptions of the Project site's characteristics. The portion of the Project site where baseball facilities remain is within a graded depression, which is particularly evident at the interface with a steep, approximately 8-foot-tall embankment to the south that gradually levels through the southern reaches of the Project site. Numerous disturbed debris piles of mixed refuse and building materials are distributed throughout the southern Project site and similar materials are also visible in the embankment's steep interface with the depression. Northeast of the baseball facilities, a grassy slope with a northerly aspect extends outside of the Project site and into a residential setting. Access roads and paths with both paved and gravel covered segments are present throughout the baseball complex. Grassy vegetation and paved and/or graveled covered surfaces constrained ground visibility at the time of the survey to approximately 0 to 35 percent in the context of the baseball facilities and approximately 15 percent in all other portions of the Project site. Aside from the debris piles, which contained mixed sandy soils, the prevailing visible soils consisted of sandy and clayey loams with approximately 25 percent gravel concentration. No archaeological resources were identified during the survey (ESA, 2025b).

Soils in surface and subsurface contexts of the Project site consist of clay loams of the Dibble-Los Osos Series, which possess relatively shallow horizons above their parent soil material mapped at approximately 80 centimeters below the ground surface. Underlying these soils, the near-surface geologic conditions of the Project site consist of marine sedimentary and metasedimentary rocks, such as shale, sandstone, and conglomerate, that date to the Late Cretaceous, ca. 100.5 to 66 million years ago. Therefore, as a function of the relatively old age of the landform and shallow soil deposition, archaeological deposits in this setting would be expected to be found exposed on the ground surface. However, agricultural soil disturbances prior to the 1950s, as well as subsequent establishment and maintenance of the baseball fields, have likely substantially altered the soil matrix on or in which archaeological deposits would be expected. Given these soil and geologic conditions, the previous disturbance, and negative findings of the records search and cultural resources pedestrian survey, the Project site has low potential for containing buried archaeological resources.

Prior CEQA Documents' Findings

The Addendum to the General Plan EIR states (verbatim text shown italicized) that *the General Plan EIR, the current federal, State, and local laws, in addition to the policies and mitigation measures in the General Plan, would reduce impacts on archaeological and paleontological resources, and unique geological features to less than significant*. The Addendum and the General Plan EIR also identified that impacts pertaining to historic resources, human remains, and tribal cultural resources as less than significant, no mitigations required (2024 Addendum p.60; 2017 General Plan EIR section 4.4) The Revised IS/MND for the Zoning Update identified the same cultural resources findings (2021 IS/MND section 4.5).

Discussion

- a) **No Impact.** CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A historical resource is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the California Register, or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California. The following discussion focuses on architectural and structural resources. Archaeological resources, including archaeological resources that are potentially historical resources according to CEQA Guidelines Section 15064.5, are addressed under impact b, below.

The baseball field complex in the Project site does not constitute a formal historical resource for the purposes of CEQA. Therefore, there are no historical resources on the Project site, and the proposed Project would not impact historical resources. This finding is less severe than the impacts identified in the prior CEQA documents, and no further analysis is required.

- b) **Less than Significant with General Plan Mitigation.** This section discusses archaeological resources, both as historical resources according to CEQA Guidelines Section 15064.5, as well as unique archaeological resources as defined in Public Resources Code (PRC) Section 21083.2(g). A significant impact would occur if the proposed Project were to cause a substantial adverse change to an archaeological resource through physical demolition, destruction, relocation, or alteration of the resource.

Based on a review of resource distribution and the environmental context, there are no previously recorded archaeological resources in the proposed Project site and the site has a low potential to uncover previously undiscovered archaeological resources.

Aligned with General Plan **Mitigation Measure CULT-2 (Archaeological Resources)**, in the event of an unanticipated discovery, the City of Vallejo shall comply with Public Resources Code Section 21083.2(i), which requires the lead agency to make provisions for archaeological resources accidentally discovered during construction. The City of Vallejo would be required to make an immediate evaluation by a qualified archaeologist, and if the find is determined to be a unique archaeological resource or a historical

resource, then it must be avoided. If avoidance is not feasible, the resource must be recovered and treated accordingly. Construction would be allowed in other areas while the archaeological mitigation takes place. With implementation of these regulations, impacts to archaeological resources would be considered less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- c) **Less than Significant with General Plan Mitigation.** Based on a review of resource distribution and the environmental context, there are no previously recorded human remains in the Project site and the site has a low potential to uncover previously undiscovered human remains.

In the unlikely event that ground disturbing activities identify undiscovered human remains, the City of Vallejo shall comply with Government Code Section 27460 et seq., which requires ground-disturbing activities to halt until the Solano County Coroner can determine whether the remains are subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of death; and the required recommendations concerning the treatment and disposition of the human remains have been made. Aligned with General Plan EIR **Mitigation Measure CUL-3** (*Paleontological Resources*), pursuant to California Health and Safety Code Section 7050.5, the coroner shall make a determination within 48 hours of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to their authority and recognizes or has reason to believe that they are those of a Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. With implementation of these regulations, impacts to human remains would be considered less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Summary

Based on the above cultural resources analysis, the proposed Project would not result in new or substantially more severe significant cultural resources impacts identified in the prior CEQA documents. No additional mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.6 Energy

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
ENERGY — Would the project:			
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☒	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☒	☐	☐

Prior CEQA Documents' Findings

The General Plan EIR identified a less-than-significant impact regarding the wasteful, inefficient, and unnecessary consumption of energy during construction or operation, although a stand-alone *Energy* section was not prepared. The less-than-significant energy impact was assessed through Appendix F, *Energy Conservation*, of the CEQA Guidelines, and other applicable State and local energy efficiency measures, addressed under energy thresholds under utilities and service systems and Greenhouse Gas Emissions (2017 General Plan EIR sections 4.15 and 4.6, respectively). The Addendum to the General Plan EIR and the Revised IS/MND for the Zoning Update identified the same less-than-significant findings; no mitigation measure were required (2021 IS/MND section 4.6; 2024 Addendum p. 64).

Discussion

a) **Construction**

Less than Significant. The Project's construction activities would consume energy primarily in the form of transportation fuels (e.g., diesel and gasoline) used by haul trucks; heavy-duty equipment, such as excavators, forklifts, and loaders; and worker vehicles operating at the Project site and traveling to and from the construction area. Electricity consumed by any electric-powered equipment would be minimal relative to the amount of diesel and gasoline consumed. Energy use would vary throughout the construction period based on the construction activities being performed and would cease upon the completion of construction. Project construction activities would not involve the consumption of natural gas.

Energy use requirements in the form of diesel fuel consumed by off-road construction equipment have been estimated based on the GHG emissions estimates from the California Emissions Estimator Model (CalEEMod), version 2022.1.1, as outlined in Section 3.3 *Air Quality* and Section 3.8 *Greenhouse Gas*, and the gasoline and diesel GHG emission factors from The Climate Registry (TCR, 2023). For on-road construction vehicles, the analysis assumes that light-duty automobiles and trucks used by commuting workers would be fueled by gasoline, and that on-road construction vehicles, such as

vendor vehicles and trucks hauling demolition debris, soil, and other materials, would use diesel fuel. This analysis assumes that no electric on-road vehicles would be used during Project construction. The quantities of fuels required by on-road vehicles during construction have been calculated based on the GHG emissions associated with commuting workers and vendor and haul trips; emissions associated with commuting workers and vendor and haul trips were estimated using CalEEMod default trip lengths. Construction activities within the Project site are expected to last approximately two years. Appendix A contains the data and assumptions used to estimate the construction GHG emissions and associated energy calculations that would be associated with the Project.

Over the duration of Project construction, it is estimated that approximately 54,688 gallons of diesel and 6,536 gallons of gasoline would be used. The diesel and gasoline use for construction activities would be temporary and constitute a very small fraction of the estimated 27 million gallons of diesel and 158 million gasoline sold in Solano County in 2023 (CEC, 2025). All equipment used in Project construction would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to off-road diesel engines, vehicles, or equipment greater than 25 horsepower; limiting to an idle time of 5 minutes. Therefore, the construction energy demand of the Project would be within the infrastructure service capabilities of regional suppliers and would not require additional local or regional capacity. The amount, form, and use of energy required for construction activities would not be wasteful, inefficient, or unnecessary. Therefore, construction of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy, and impacts associated with transportation fuels for construction of the Project would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents. Moreover, as previously discussed, each of the prior CEQA documents contemplated development of the proposed 130-unit residential development on the proposed Project site, so its construction effects were already factored into the prior impacts.

Operations

Less than Significant. Once occupied, the 130 single-family homes that compose the proposed Project are estimated to use a combined total of approximately 1,112,459 kilowatt hours per year. New homes would be required to comply with updated and more stringent energy efficiency Title 24 and CALGreen standards. The Project would result in an increase in traffic to the Project site of approximately 1,227 total daily traffic trips. Based on these trips, the Project would result in the consumption of approximately 164,465 gallons of gasoline per year associated with passenger automobile trips to and from the Project site. This estimate of gasoline usage is likely overstated as the Project would also incorporate electric vehicle charging infrastructure, enabling residents and visitors the opportunity to purchase electric vehicles and easily charge them, reducing gasoline consumption. An estimated 5,113 gallons of diesel would be used annually for off-road equipment needed for site maintenance. Appendix A contains the data and assumptions used to estimate the operational GHG emissions and associated energy

calculations that would be associated with the Project. The operational energy demand of the Project would be within the infrastructure service capabilities of regional suppliers and would not require additional local or regional capacity. The Project's operations would include various sustainable energy features including, energy star certified appliances, dual pane low-e glass windows, leasable or purchasable solar energy system, electric vehicle charging conduits, smart irrigation system, and motion-sensor light switches. The amount, form, and use of energy required for operational activities would not be wasteful, inefficient, or unnecessary. Therefore, operation of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy, and impacts associated with operations would be less than significant and would not result in any new significant or substantially greater impacts as the impacts as identified in the prior CEQA documents. Because each of the prior CEQA documents contemplated development of the proposed 130-unit residential development on the proposed Project site, the operational energy effects were already factored into the prior impacts.

- b) **Less than Significant.** As discussed above, the Project's construction would require the use of off-road construction equipment and on-road trucks. Construction activities would comply with state and local requirements designed to minimize idling and associated emissions, which would also minimize the use of fuel. Specifically, all equipment used in Project construction would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to off-road diesel engines, vehicles, or equipment greater than 25 horsepower: limiting to an idle time of 5 minutes. Fuel use for Project construction would be consistent with typical construction and manufacturing practices, and energy standards such as the Energy Policy Acts of 1975 and 2005, which promote strategic planning and building standards that reduce consumption of fossil fuels, increase use of renewable resources, and enhance energy efficiency. In addition, all vehicles used during construction and operation would be required to comply with federal (CAFE) standards. As stated above, the Project would be required to comply with Title 24 and CALGreen building and energy efficiency standards, so the Project would comply with existing State energy standards.

There are no aspects of the Project's construction and operations that would conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and the impact would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents that contemplated construction and operation of the proposed Project.

Summary

Based on the above energy analysis, the proposed Project would not result in new or substantially more severe significant energy impacts identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.7 Geology and Soils

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
GEOLOGY AND SOILS — Would the project:			
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐
iv) Landslides?	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☒	☐	☐
d) Be located on expansive soil creating substantial direct or indirect risks to life or property? ⁹	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☒	☐	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐

Prior CEQA Documents' Findings

The Addendum to the General Plan EIR states (verbatim text shown italicized) that the General Plan EIR *would result in less-than-significant impacts related to erosion, surface fault rupture, ground shaking, liquefaction, and differential settlement assuming proper enforcement of existing State and local building code requirements, as well as implementation of the policies in the General Plan.* The Addendum also reported that the General Plan EIR also identified a less-than-significant impact regarding waste water disposal systems since *all development would be connected to the existing sewer system. Adherence to the applicable policies and regulations would ensure geology and soils impacts remain less than significant for all potential development.* Although discussed under cultural resources in the General Plan EIR and its Addendum, an impact to paleontological resources would be less than significant with the

⁹ The California Building Code (CBC) no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soils.

implementation of mitigation measure in each of the prior CEQA documents. (2024 Addendum p. 61, 2017 General Plan EIR section 4.5, and 2021 IS/MND section 4.7)

Discussion

a.i) **Less than Significant.** The Project site is not located within an Alquist-Priolo Earthquake Fault Zone, and there are no known active faults crossing the Project site as mapped and/or recognized by the State of California. The nearest major active faults are the West Napa Fault, located approximately 4.84 miles northwest of the Project site and the Green Valley Fault located approximately 5.45 miles to the east of the Project site (CGS, 2024). Therefore, the proposed Project would have a less-than-significant impact regarding the exposure of people or structures to a substantial adverse effects due to proximity to a State-designated Alquist-Priolo Zone or other designated fault zone. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

a.ii) **Less than Significant.** The Project site is located in a seismically active region that has the potential to be subject to strong ground shaking from an earthquake along any of the active faults located in the region. The intensity of the ground shaking at the Project site would depend upon the characteristics of the generating fault, distance to the earthquake epicenter, magnitude and duration of the earthquake, and site-specific geologic conditions. During its history, the Project site has been subjected to strong ground shaking from moderate to large earthquakes. A major earthquake on one of the nearby faults could again produce strong to very strong shaking at the Project site.

As discussed above, the Project site is located in the seismically active Northern California region and strong seismic ground shaking as a result of earthquakes along several local and regional faults is likely to occur during the design life of the Project. However, the risk from strong seismic shaking on the Project site is no greater than other areas of Northern California. As required by State and local building regulations, the City would review the building plans for compliance with the City Building Code and the CBC seismic standards related to seismic safety. Therefore, impacts from strong seismic ground shaking would be less than significant and no mitigation measures are required. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

a.iii) **Less than Significant.** Strong shaking during an earthquake can result in ground failure including soil liquefaction. When saturated soil with little to no cohesion liquefies during a major earthquake, it experiences a temporary loss of shear strength. Flow failure, lateral spreading, differential settlement, loss of bearing, ground fissures, and sand boils are evidence of excess pore pressure generation and liquefaction. The Project site is located within a zone designated as having very low potential for earthquake liquefaction susceptibility (MTC and ABAG, 2020). Additionally, the Stevens, Ferrone & Bailey Engineering Company (SFB) prepared a Geotechnical Feasibility Investigation Report (Geotechnical Report) for the Project in 2022. The purpose of the investigation was to evaluate the geological and geotechnical conditions at the site and provide preliminary

recommendations regarding the geological and geotechnical engineering aspects of the Project for preliminary planning and cost estimating purposes (SFB, 2022). The Geotechnical Report concluded that due to encountering bedrock at relatively shallow depths throughout the site and not encountering groundwater, the potential for liquefaction occurring at the Project site is very low (SFB, 2022).

Residential development of 130 units on the Project site was contemplated in the prior CEQA documents based on the adoption of the density proposed for the site as part of the General Plan EIR and Zoning Update IS/MND. Therefore the analyses in the prior CEQA documents also considered the subsurface geological conditions of the Project site. The Project would be consistent with General Plan and would implement policy NBE-5.4 and action NBE-5.4a which ensure that liquefaction risks are addressed during Project engineering. In addition, structures, utilities, and other key Project elements would meet CBC seismic zone design standards or better to withstand expected earthquake ground shaking, liquefaction, or other ground failures. Therefore, impacts from seismic-related ground failure including liquefaction would be less than significant and no mitigation measures are required. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- a.iv) **Less than Significant.** The Project site and immediate vicinity are relatively flat and, therefore, not subject to seismically induced landslide hazards. The Project site is in an area designated as having few landslides (MTC and ABAG, 2020). Additionally, the Geotechnical Report prepared by SFB determined that no landslides or landslide associated deposits were observed to have a negative impact on the proposed development area (SFB, 2022). Furthermore, the Project would be required to implement policy NBE-5.4 and actions NBE-5.4a and NBE-5.4b to ensure that landslide risks are addressed during Project engineering. Therefore, impacts from landslides would be less than significant and no mitigation measures are required. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- b) **Less than Significant.** During Project demolition and construction, soil could be exposed to erosion from wind and surface water runoff. Additionally, ground-disturbing activities associated with Project construction may result in the removal of some topsoil during construction. However, the Project would be developed consistent with the General Plan and would be required to comply with Action NBE-5.4a which requires a geotechnical study for land use proposals to determine engineering measures that may be necessary to adequately mitigate any seismic, flooding, sea level rise, landslide, erosion, or related risk. In accordance with this action, the Geotechnical Investigation concluded that the Project site is suitable for the Project (SFB,2022).

Furthermore, the Project would adhere to the City of Vallejo's grading permit process which requires the creation and implementation of an erosion control plan prior to the start of grading activities and the Vallejo Municipal Code Section 12.40.070 which includes erosion control measures. In addition, the Project would be required to comply

- with the General Construction Permit as required by the State Water Resources Control Board and thus would implement a Storm Water Pollution Prevention Plan (SWPPP) and applicable best management practices (BMPs). Construction of the Project would comply with these regulations and would not result in substantial soil erosion due to the implementation of proper erosion control measures. Therefore, impacts from soil erosion or the loss of topsoil would be less than significant and no mitigation measures are required. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- c) **Less than Significant.** The Project site is relatively flat; thus it is not susceptible to landslides or other forms of natural slope instability. As mentioned above, the Project site is within a zone mapped as having few landslides and is within a zone designated as having very low potential for earthquake liquefaction susceptibility (MTC and ABAG, 2020). Additionally, the Project would be consistent with applicable General Plan policies including Policy NBE-5.4 in which a Geotechnical Report was prepared. Compliance with the Geotechnical Report recommendations would ensure the Project will be appropriately engineered to address existing soil conditions. As discussed above, buildings, utilities, and other key Project elements would meet CBC seismic zone design standards or better, and appropriate construction practices would be implemented during construction. Therefore, impacts from unstable soils would be less than significant and no mitigation measures are required. The Project would not result in any new significant or substantially greater impacts as the impacts, same as identified in the prior CEQA documents.
- d) **Less than Significant.** As discussed above, the Geotechnical Report indicates the near-surface clay soils encountered have a high plasticity and high expansion potential. This potentially significant impact would be reduced to a less than significant level by following the recommendations specified in the Geotechnical Report. These recommendations include over-excavating and recompacting the existing fill materials and weak near-surface soils as well as underlying all building pads in areas of shallow bedrock by an engineered fill layer at least 3 feet thick. The Geotechnical Report concluded that the Project site is suitable for the Project (SFB, 2022). Therefore, impacts from expansive soils would be less than significant and no mitigation measures are required. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- e) **No Impact.** As discussed in Section 3.18, *Utilities and Service Systems*, the existing sewer system would provide sewer service to the Project, and on-site wastewater treatment systems are not required or proposed at the Project site. In order to satisfy the Vallejo Flood and Wastewater District (VFWD)'s July 2020 Engineering Design Standards, the Project would upsize the existing sanitary sewer main along Hargus Avenue from 6-inches to 8-inches. This would require 453 feet of new 8-inch sewer and three new sewer maintenance holes. The proposed upsize of the existing 6-inch sewer along Hargus Avenue would provide the adequate sewer capacity and preclude the need for a lift station from the proposed development. Therefore, the Project would not include

- the installation of septic tanks or alternative wastewater disposal systems and would therefore have no impact on soils related to septic tanks or alternative wastewater disposal systems. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- f) **Less than Significant with General Plan Mitigation.** Although paleontological resources have not been recorded near the Project site, the Project site is mapped on Late Jurassic to Cretaceous age sandstone deposits (USGS, 2017). Due to the presence of potentially fossiliferous deposits underlying the Project site, demolition and construction activities associated with the Project could encounter paleontological resources. Therefore, it is possible that the Project would result in a significant impact to paleontological resources, as previously discussed in under 3.5, *Cultural Resources*, in this Checklist. The Project would result in a less-than-significant impact with **Mitigation Measure CUL-3 (Paleontological Resources)**, to paleontological resources, and therefore would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Summary

Based on the above geology and soils analysis, the proposed Project would not result in new or substantially more severe significant geology and soils impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

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3.8 Greenhouse Gas Emissions

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
GREENHOUSE GAS EMISSIONS — Would the project:			
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐

Regulatory Setting

Significance Thresholds

In April 2022, in response to Senate Bill (SB) 32 and 2017 Scoping Plan Update targets for 2030 and Executive Order (EO) B-30-15 target for carbon neutrality no later than 2045, the BAAQMD adopted updated CEQA significance thresholds for GHGs and included them in the 2023 update to the BAAQMD CEQA Guidelines (BAAQMD, 2022; 2023). The BAAQMD has not adopted quantitative GHG thresholds for construction, citing, “Because construction emissions are temporary and variable, the Air District has not developed a quantitative threshold of significance for construction-related GHG emissions. However, the Lead Agency should quantify and disclose GHG emissions that would occur during construction” (BAAQMD 2023).

Operational thresholds were identified by BAAQMD as the requirements for new land use development projects to achieve California’s long-term climate goal of carbon neutrality by 2045 as outlined in the 2022 Scoping Plan. To avoid the finding of a significant impact related to climate change, a land use project must comply with threshold A or B below:

A. Projects must include, at minimum, the following project design elements:

Buildings:

- The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
- The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

Transportation:

- Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA:
 - Residential projects: 15 percent below existing VMT per capita.
 - Office projects: 15 percent below the existing VMT per employee.
 - Retail projects: No net increase in existing VMT.
 - Achieve compliance with off-street Tier 2 electric vehicle charging requirements in the most recently adopted version of CALGreen.
- B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Prior CEQA Documents’ Findings

Based on the City of Vallejo’s 2012 Climate Action Plan (CAP) that was a qualified GHG reduction strategy when the General Plan EIR was prepared, GHG emissions under the implementation of the General Plan were determined to be cumulatively significant and unavoidable even with the implementation of the mitigation measures. The GHG emissions analysis in the Zoning Update IS/MND was the same, discussing that, while the *City’s General Plan and the CAP include measures to align the City with the GHG reductions of AB 32....and that the City would implement actions that reduce GHG emissions from buildout of the General Plan Update pursuant to mitigation measures, additional federal and State measures would be necessary to reduce GHG emissions to meet the long-term GHG reduction goals under Executive Order B-30-15. (2021 IS/MND p. 80)* Therefore, development under the General Plan and Housing Element Update would fail to meet the GHG emissions target set by Executive Order B-30-15 and Executive Order S-03-05. (2017 General Plan EIR section 4.6, 2024 Addendum p. 61) Also, as disclosed in the Addendum to the General Plan EIR, an increase in housing density *would both reduce VMT and result in less impact on GHG than analyzed in the General Plan EIR*; the Addendum determined that the *GHG impacts would not exceed the significant and unavoidable impacts evaluated in the General Plan EIR (2024 Addendum p.61)*

Discussion

The construction and operational emissions below have been provided for informational purposes and are not used in the evaluation of significance of impacts as the BAAQMD does not provide mass emissions thresholds for assessment of GHG impacts.

a, b)

Construction

Less than Significant. The combustion of fuel to provide power for the operation of various off-on-site and off-road construction equipment and vehicles results in the

generation of GHGs. Construction emissions associated with the Project were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1, as outlined in Section 3.3 *Air Quality*. Appendix A contains the data and assumptions used to estimate the construction GHG emissions that would be associated with the Project.

Table 3.8-1 shows that Project construction would generate a total of approximately 622 MTCO₂e over the construction period. BAAQMD has neither adopted nor recommended GHG thresholds for construction emissions in their BAAQMD CEQA Guidelines. Instead, it recommends that a determination of the significance of a project's construction emission impacts be made in relation to meeting the State's GHG reduction goals. As described further below, the Project would not generate construction GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

**TABLE 3.8-1
GHG EMISSIONS FROM PROJECT CONSTRUCTION**

Year	Annual GHG Emissions (MTCO ₂ e per year)
2026	370
2027	252
Total	622
Amortized (30 Years)	20.73

MTCO₂e = metric ton of carbon dioxide equivalence

SOURCE: ESA, 2024.

Operations

Less than Significant. GHG emissions during operations would primarily occur from mobile and energy emissions. Additional direct GHG emissions would occur from area sources such as landscaping equipment, architectural coatings, waste, water, refrigerants, and off-road equipment. As shown in **Table 3.8-2**, Project operations would generate approximately 1,665 MTCO₂e per year.

**TABLE 3.8-2
EMISSIONS FROM OPERATION (LBS. PER DAY/TONS PER YEAR)^A**

Source	Annual GHG Emissions (MTCO ₂ e per year)
Mobile	1469
Area	1.62
Electricity Use	104
Water	9.77
Waste	27.6
Refrigerants	0.5
Off-Road	52.4

Total Emissions	1,665
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MTCO₂e = metric ton of carbon dioxide equivalence

SOURCE: ESA, 2025.

While the City's 2012 CAP may have been a qualified GHG reduction strategy at the time of the General Plan EIR, it no longer addresses current state and regional GHG reduction targets beyond 2020. The CAP does not incorporate more recent legislative goals such as those established by SB 32 and EO B-55-18, which call for greater reductions in emissions. As a result, the CAP is not applicable for determining project-level consistency with post-2020 reduction targets under the BAAQMD CEQA Guidelines. Therefore, the Project analysis below for the proposed Project is conducted based on the four project design features in BAAQMD's option A threshold above.

Greenhouse gas emissions and the potential environmental effects of development on those emissions were studied in the prior CEQA documents, even though different regulatory guidance and thresholds applied. BAAQMD's current operational GHG thresholds applied in this Addendum remain consistent with the 2022 Scoping Plan. Moreover, the application of BAAQMD's current operational GHG thresholds in this Addendum for the proposed Project is not considered a substantial change or new information of substantial importance pursuant to CEQA Guidelines Section 15162.

BAAQMD's operational GHG thresholds were developed for the purpose of evaluating a project based on its effect on California's efforts to meet the State's long term climate goals. BAAQMD finds that the following design elements would be required of new land use development projects, in order to achieve California's carbon neutrality target by 2045. As described earlier, this approach is consistent with the 2022 Scoping Plan and would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions.

- 1) The Project would not include natural gas appliances or natural gas plumbing. It is designed to be all-electric.
- 2) The Project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. Development in accordance with the General Plan must comply with various regulations designed to reduce GHG emissions, including the Building Energy Efficiency Standards (Title 24, Part 6), the California Green Building Standards Code (Title 24, Part 11), and the Appliance Energy Efficiency Standards (Title 20), which the Project would incorporate (City of Vallejo 2017b). The Project buildings as designed will use a permanent supply of electricity as the source of energy for all space heating, water heating, cooking appliances, and clothes drying appliances, and would not have natural gas or propane plumbing installed in the buildings. Designing the buildings to use a permanent

supply of electricity would reduce the annual operational GHG emissions from energy use associated with the Project.

- 3) The Project is located in a transit priority area (TPA) and also is within an area with an average VMT per resident and per worker that is at least 15% below the respective Bay Area averages.
- 4) CalGreen Tier 2 requirements for single-family homes with attached private garages mandates the installation of a raceway capable of supporting 208/240-volt branch circuit. The Project would comply with CalGreen Tier 2 Voluntary electric vehicle (EV) charging infrastructure (EVCS) requirements by installation of EV charging station conduits in all single-family dwelling units.

The Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant, less than the significant and unavoidable impact identified in the prior CEQA documents.

Summary

Based on the above GHG emissions analysis, the proposed Project would not result in new or substantially more severe significant GHG emissions impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.9 Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
HAZARDS AND HAZARDOUS MATERIALS —			
Would the project:			
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☒	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☒	☐	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☒	☐	☐

Background Study

A Phase I Environmental Site Assessment (ESA) dated July 13, 2022, was prepared for the Project site by ENGEO (ENGEO, 2022). In addition to the Phase I ESA's review of local, State, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources, a reconnaissance of the Project site was completed to review site use and current conditions potentially hazardous materials. The Phase I also summarizes previous investigations (Padre, 2016; Schultz, 2010) conducted for the site. The previous investigations documented limited lead-impacted soil in areas of the Project site. Arsenic was detected at levels within naturally occurring background concentrations not expected to pose a concern for redevelopment. No contaminated facilities were identified within the appropriate American Society for Testing and Materials (ASTM) International search distances that would reasonably be expected to impact the Project site. The 2022 Phase 1 ESA concurred with the prior reports' findings that overall arsenic concentrations are within the range of background concentrations for Northern California and that the areas of lead-impacted soil and existing fill material containing large amounts of concrete, asphalt, and other debris (plastic,

metal, etc.) should be removed prior to site development. Overall, no historical recognized environmental conditions (RECs) and no controlled RECs were identified for the Project site.

Given the age of the existing structures, which include dugouts, bleachers, a snack shack, parking areas, and asphalt roads, it is conceivable that asbestos, lead, and polychlorinated biphenyls (PCB)-containing materials may exist within the structures.

Prior CEQA Documents' Findings

The General Plan EIR identified less-than-significant impacts regarding hazards and hazardous materials, with the exception of no impacts to a public airport, as the City does not contain an airport or airstrip within its vicinity. (2017 General Plan EIR section 4.7) Also, as summarized in the Addendum to the General Plan EIR (verbatim text shown italicized) *[h]azards associated with contaminated subsurface materials would be mitigated through investigations that would provide recommendations to remediate the contamination, if necessary, to safe levels. Similarly, existing protocols and regulations for demolition of hazardous building materials would address the potential impacts of exposure to hazardous structural and building components. All development under the proposed Housing Element would comply with the existing regulations and procedures resulting in less-than-significant impacts.* (2024 Addendum p. 61)

The Revised IS/MND for the Zoning Update identified similar impacts, excepting that it also designated no impacts regarding interference with adopted emergency response or evaluation plans since no increase in density was proposed by the Zoning Update; also excepting that no impact would occur regarding exposure to wildland fires due to the urban setting of the City (2021 IS/MND section 4.9).

Discussion

- a) **Less than Significant.** Construction of the Project would involve the temporary transport, use, and disposal of potentially hazardous materials. These materials include paints, adhesives, surface coatings, cleaning agents, fuels, and oils that are typically associated with most development projects. These materials would be used temporarily during construction, and all potentially hazardous materials associated with construction activities would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any use of potentially hazardous materials during construction of the Project would comply with all local, State, and federal regulations regarding the handling of potentially hazardous materials and risk of spills and would cease after construction is completed. Also, the transport, use, and storage of hazardous materials during construction would adhere to all applicable State and federal laws, and construction activities would be contained on the Project site, so any emissions from the use of such materials would be minimal and localized to the Project site. Therefore, construction of the Project would not expose persons or the environment to a substantial risk resulting from the release of hazardous materials or exposure to health hazards in excess of regulatory standards.

Operation of the proposed 130-unit residential subdivision would not involve the routine use of hazardous materials. Instead, the operation of the Project has limited hazardous materials that are similar to other residential development, such as cleaning solvents, paints, and pesticides for landscaping. As a result, the Project would not produce significant amounts of hazardous waste or use or transport hazardous waste beyond those materials typically used in an urban development. As the Project would be developed in accordance with the General Plan, it would be required to comply with relevant policies and regulatory requirements.

Previous Soil Analysis

The 2022 Phase I ESA prepared by ENGEO for the Project site concurred with findings reported in the previous 2016 Phase II ESA prepared by Padre, as previously summarized in the Environmental Setting. The soil analysis identified organochlorine pesticides (OCPs) chlordane, DDE, DDT, dieldrin, and heptachlor epoxide in the soil samples, though none of the concentrations exceeded regulatory screening levels (RSLs). Polynuclear aromatic hydrocarbons (PAHs) and PCBs were not identified at concentrations in soil at or above their respective laboratory reporting limits. Total petroleum hydrocarbons (TPH) identified as gasoline, diesel fuel, and motor oil were reported at concentrations that were determined not pose a significant, long-term (chronic) threat to human health and the environment. Cobalt was detected in the soil though was determined not to be a constituent of concern. Arsenic was identified in the soil samples at concentrations that appear to be comparable and representative of naturally occurring concentrations. The 2022 ESA indicates that the site conditions have not changed since the 2016 analysis.

Lead concentrations ranged from 4.8 to 270 mg/kg in discrete soil samples collected at the Project site. All of the soil samples collected in the area of the baseball fields were less than 80 mg/kg, which is the California Department of Toxic Substances Control (DTSC) screening level for residential land use. Lead concentrations exceeding the screening level were identified in four soil sample locations in the southern portion of the Project site, at an approximate depth of 4.5 feet. The volume of lead impacted soil appears to be limited to approximately 20 to 30 cubic-yards and can safely be removed during Project development. Additionally, an elevated concentration of lead was identified in one of seven soil samples collected from undocumented fill in the southwest portion of the Project site. This material can also be safely removed during Project development consistent with standard practices.

Construction of the Project would involve the temporary transport, use, and disposal of potentially hazardous materials, consistent with typical development of any Project. Any existing soil and/or undocumented fill with elevated concentrations of lead at the Project site would also need to be removed, transported, and disposed of in a routine manner consistent with regulatory requirements (summarized on pages 4.7-2-4.7-6 of the General Plan EIR), such that it would not create a significant hazard to the public or the environment. Impacts would be less than significant and no mitigation is required and

would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- b) **Less than Significant.** As a residential use, operation of the Project would not involve the routine use or emission of hazardous materials. Instead, the operation of the Project has limited hazardous materials similar to any other urban development such as cleaning solvents, paints, and pesticides for landscaping.

The Project site is improved with four baseball fields (with dugouts and bleacher structures), a snack shack and parking along Rollingwood Drive, and asphalt roads. Demolition activities would be minimal, and the handling of friable and non-friable asbestos containing materials such as vinyl flooring, vinyl flooring mastic, textured coatings, lay-in ceiling panels, ceiling tiles, stucco, roofing materials, wallboard and joint compound, or lead based paints would be unlikely. To the extent any asbestos or lead based paints are on site, they can be safely removed in accordance with regulatory requirements.

As further detailed above, a 2016 Phase II soil analysis identified elevated levels of lead concentrations in soil samples collected at the Project site. All of the soil samples collected in the area of play fields were less than 80 mg/kg, which is the DTSC screening level for residential land use. Lead concentrations exceeding the screening level were identified in four soil sample locations in the southern portion of the Project site, at an approximate depth of 4.5 feet. The volume of lead impacted soil appears to be limited to approximately 20 to 30 cubic-yards and can safely be removed during Project development. Additionally, an elevated concentration of lead was identified in one of seven soil samples collected from undocumented fill in the southwest portion of the Project site. This material can also be safely removed during Project development.

Construction of the Project would involve the removal of existing soil and/or undocumented fill with elevated concentrations of lead at the Project site. This soil would be removed, transported, and disposed of in a routine manner consistent with regulatory requirements (summarized on pages 4.7-2-4.7-6 of the General Plan EIR), such that it would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accidental release. Impacts would be less than significant and no mitigation would be required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- c) **No Impact.** The closest school to the Project site is the Hogan Middle School, approximately 0.5 miles northwest of the Project site, further than one quarter mile. As previously mentioned, construction of the Project would involve the temporary transport, use, and disposal of potentially hazardous materials that are typically associated with project development. These materials would be used temporarily during construction and all potentially hazardous materials associated with construction activities would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any use of potentially hazardous materials utilized during construction of the Project would comply with all local, State, and federal

regulations regarding the handling of potentially hazardous materials and risk of spills would cease after construction is completed. Also, operation of the 130-unit residential subdivision would not involve the routine use, transport, emissions or disposal of hazardous materials. Instead, the operation of the Project has limited hazardous materials that are similar to any other urban development, such as cleaning solvents, paints, and pesticides for landscaping. As a result, the Project would not produce significant amounts of hazardous waste, use or transport hazardous waste beyond those materials typically used in an urban development.

As further detailed above, the elevated levels of lead concentrations in soil samples collected at the Project site were below the DTSC screening level for residential land use. Lead concentrations exceeding the screening level were identified in the southern portion of the Project site, at an approximate depth of 4.5 feet. The volume of lead impacted soil appears to be limited to approximately 20 to 30 cubic-yards and can safely be removed during Project development. Additionally, an elevated concentration of lead was identified in one of seven soil samples collected from undocumented fill in the southwest portion of the Project site. This material can also be safely removed during Project development.

The Project would not produce significant amounts of hazardous waste, use or transport hazardous waste beyond those materials typically used in an urban development, and the Project site is not within a quarter mile of a school. Construction of the Project would involve the removal of existing soil and/or undocumented fill with elevated concentrations of lead at the Project site. This soil would be removed, transported, and disposed of in a routine manner consistent with regulatory requirements (summarized on pages 4.7-2-4.7-6 of the General Plan EIR), such that it would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts would be less than significant and no mitigation would be required, less than the impact identified in the prior CEQA documents.

- d) **Less than Significant.** The Project site is not currently listed in regulatory databases maintained by county, State, tribal, and federal agencies pertaining to hazardous materials violations or discharge, specifically any databases compiled pursuant to Government Code Section 65962.5. The Project site is not located on the DTSC Hazardous Waste and Substances Site List-Site Cleanup (Cortese List), nor is it listed on the EnviroStor database. Further, the Project site is not on the following lists maintained by the State Water Board: Leaking Underground Storage Tank Sites, Solid Waste Disposal Sites, or Active Cease and Desist Orders and Cleanup and Abatement Orders. Impacts would be less than significant and no mitigation would be required. Therefore, the Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- e, f, g) **No Impact.** The Project site is not located within an Airport Land Use Plan (ALUP). Napa County Airport, approximately 8.7 miles northwest of the Project site, is the closest airport to the Project site. Therefore, there are no public airports within 2.0 miles of the

Project site. The Project would not change any of the land uses identified in the General Plan as planned for development within the ALUP or otherwise alter safety conditions for people within the ALUP. Additionally, there would be no impact related to airport safety hazards and excessive noise. There would be no impact and no mitigation is required, therefore the Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

The City's Emergency Operation Plan is developed and maintained by the City's Assistant Director of Emergency Services. The City does not currently have designated evacuation routes, but major roads such as I-80 and I-680 and State Routes (SRs) 29, 37 in the City and I-505, I-780, SR-12, SR-83, and SR-113 in the region would likely be critical corridors for circulation in the event of an emergency. The Project would not alter or obstruct any of these roads, either during construction or permanently. The addition of Project-generated traffic would have a limited effect on traffic in the area and would not generate traffic that would interfere with an emergency response plan (also see Section 3.17, *Transportation*). Implementation of the Project would not interfere with roadway operations used in conjunction with an emergency response plan or emergency evacuation plan or generate traffic congestion that would interfere with the execution of such a plan. Impacts would be less than significant and no mitigation measures are required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

The General Plan EIR concluded that there is not a significant risk of loss, injury or death involving wildland fires (General Plan EIR page 4.7-31). There are no very High Fire Hazard Areas in or adjacent to Vallejo. Development of the Project is consistent with General Plan and would be located within an already urbanized and/or developed area of the City. Impacts would be less than significant and no mitigation is required, which is the same conclusion as that identified in the prior CEQA documents.

Summary

Based on the above hazards and hazardous materials analysis, the proposed Project would not result in new or substantially more severe significant hazards and hazardous materials impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

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3.10 Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
HYDROLOGY AND WATER QUALITY —			
Would the project:			
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			
i) result in substantial erosion or siltation on- or off-site;	☒	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☒	☐	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☒	☐	☐
iv) impede or redirect flood flows?	☒	☐	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☒	☐	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☒	☐	☐

Prior CEQA Documents' Findings

The prior CEQA documents identified less-than-significant impacts regarding hydrology and water quality, determining that potential development impacts associated with increased rates of stormwater runoff and subsequent flooding hazards, erosion, increase in nonpoint source pollutants affecting receiving water quality would be reduced to less-than-significant levels through State and local regulatory compliance and with implementation of General Plan policies. (2017 General Plan EIR section 4.8, 2024 Addendum pp. 61-62, 2021 IS/MND section 4.10.)

Discussion

- a) **Less than Significant.** During construction, Project activities would involve ground-disturbing earthwork including soil excavation and filling, trenching, and grading. These activities could increase the susceptibility of soils on the Project site to erosion by wind or water. During construction, heavy equipment such as bulldozers, graders, earth movers, heavy trucks, trenching equipment and other machinery is likely to be used. Such machinery could contribute pollutants to stormwater runoff in the form of sediment and other pollutants such as fuels, oil, lubricants, hydraulic fluid, or other contaminants. Additionally, site work could result in conditions of runoff. Sediment, silt, and construction debris, if mobilized during construction could be transported to receiving waters such as the Napa River. In the absence of runoff controls, exceedances of water quality standards could result. If not controlled and managed, the impact of soil erosion could be significant. Construction of the Project would require disturbance of more than one acre and thus would be required to apply for coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP), which regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The CGP requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). A site-specific SWPPP would be developed and implemented as part of the Project in accordance with the NPDES CGP to minimize water impacts during construction. This plan would include best management practices (BMPs) designed to control and reduce soil erosion. The BMPs may include dewatering procedures, storm water runoff quality control measures, watering for dust control, and the construction of silt fences, as needed.

The San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP; Municipal Separate Storm Sewer System [MS4] Permit NPDES No. CAS612008 and Order No. R2-2022-0018, also referred to as the Municipal Regional Stormwater Permit [MRP]) requires permittees, which includes the City of Vallejo, to reduce pollutants and runoff flows from new development and redevelopment using BMPs to the maximum extent practical. The Project will be required to comply with the MRP. As discussed in the 2023 SEIR Preliminary Stormwater Control Plan prepared by Carlson, Barbee & Gibson, Inc (CBG) for the proposed Project, the Project will redirect site drainage by connecting the proposed site drainage system to the existing drainage system in the northwest corner and providing detention for the increase in peak runoff from pre-construction to post-construction (CBG 2023). The Project includes one detention basin and two bioretention basins. The detention basin would capture storm water, so it does not overflow onto nearby properties or public roads and empties slowly to prevent downstream flooding from occurring. Bioretention basins are permanent pools of standing water that are used to treat and store storm water runoff. The bioretention basins would capture and enable stormwater to infiltrate into the subsurface and also slow the flow of runoff, so water can be stored for use as irrigation water during drier periods. This process also provides treatment by storing polluted storm water until natural

processes remove contaminants. The volume of the basins would be sized to ensure that the volume and rate of stormwater runoff is less than existing conditions, thus complying with the MRP.

Compliance with the NPDES CGP and MRP regulations would prevent degradation in water quality during construction and operation of the Project and ensure that construction and operations activities would result in a less-than-significant impact relative to water quality. This impact is consistent with the less-than-significant impact determination in the prior CEQA documents.

- b) **Less than Significant.** The Project would not use or deplete groundwater resources, as the City currently receives 100 percent of its water from surface water supplies and the Project would not use groundwater. The Project would increase the amount of impervious surface, which could interfere with groundwater recharge. However, the Project design includes routing stormwater to landscaping and includes two bioretention basins, which would allow stormwater to infiltrate back into the subsurface, as it does now. Therefore, the Project would not decrease groundwater supplies or interfere substantially with groundwater recharge. The impact would be less than significant, consistent with the impact determinations in the prior CEQA documents.

- c.i, ii, iii, and iv) **Less than Significant.** The Project site currently has no erosion control measures. Stormwater currently flows as sheet flow across the site to the existing municipal stormwater system west of the site. The proposed Project would capture and control all stormwater falling on the site. All stormwater would be routed to one detention and two bioretention basins. Some of the water would infiltrate into the subsurface, some would be used for irrigation, and water released to the existing municipal stormwater system would discharge in a controlled manner at a rate and volume that would be less than existing conditions. Therefore, the proposed Project would not result in substantial erosion or siltation onsite or offsite and would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. The proposed Project would not place new structures in floodplains and is not anticipated to impede or redirect flood flows. The proposed Project's impacts would be less than significant, consistent with the impact determinations in the prior CEQA documents.

- d) **No Impact.**

The Federal Emergency Management Agency (FEMA), through its Flood Insurance Rate Mapping (FIRM) program, designates areas where urban flooding could occur during 100-year and 500-year flood events. The Project site is primarily located within FEMA FIRM Panels 06095C0629G (effective August 3, 2016) and the northern portion of the Project site is within Panel 06095C0627G (effective August 3, 2016). The FIRM Panels indicate that the Project site is located within Zone X (area of minimal flood hazard) which is defined as an area determined to be outside the one percent and 0.2 percent annual chance floodplains, indicative of a minimal flood hazard. The surrounding area is

also designated as Zone X (FEMA, 2025). In addition, the Project site is not located in an area identified as a tsunami hazard zone (MTC and ABAG, 2023). The nearest water bodies are the Carquinez Strait, located approximately 1.9 miles south of the Project site, the Napa River, located approximately 2.1 miles to the west of the Project site, and San Pablo Bay, located approximately 3.5 miles to the west of the Project site. Given the Project site's location, almost two miles from any body of water, and the fact that the Project site is at an elevation of 150 to 180 feet above sea level, the Project site would not be inundated in the event of a seiche. Therefore, there would be no impact related to the release of pollutants in the event of inundation due to flood hazard, tsunamis, or seiches, less than the impact determination in the prior CEQA documents.

- e) **No Impact.** The proposed Project would not use groundwater. The proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; therefore, no impact would occur, less than the impact determination in the prior CEQA documents.

Summary

Based on the above hydrology and water quality analysis, the proposed Project would not result in new or substantially more severe significant hydrology and water quality impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.11 Land Use and Planning

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
LAND USE AND PLANNING — Would the project:			
a) Physically divide an established community?	☒	☐	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☐

Prior CEQA Documents' Findings

The prior CEQA documents identified less-than-significant impacts regarding land use and planning. The Addendum for the Housing Element determined less-than-significant impacts since the proposed zoning and land use changes would continue to allow residential uses and the increase in residential intensity on certain properties would have the same physical impacts as those previously identified in the General Plan EIR. Similarly, each the General Plan, the Housing Element Update, and the Zoning Update were determined to be consistent with regional land use plans, including Plan Bay Area 2050 with goals that prioritize high-density, mixed-used development and proximity of residential development to transit.

To the extent that development will occur pursuant to the General Plan, Housing Element Update and Rezoning, it would all be required to confirm to all applicable regulations and standards of the General Plan, Zoning Code and Housing Element and be compatible with surrounding uses. (2017 General Plan EIR section 4.9, 2024 Addendum p. 62, 2021 IS/MND section 4.11) Further, the General Plan EIR discusses that, in accordance with CEQA, future potential projects permitted under the proposed Project undergo project-level environmental review. Additionally, future development projects would be subject to the policies of the proposed Project. One of the primary goals of the proposed General Plan is to encourage additional connections between neighborhoods and destinations in Vallejo. (2017 General Plan EIR p. 4.9-14)

Discussion

- a) **Less than Significant.** The physical division of an established community typically refers to the construction of a physical feature (such as a wall, highway, or railroad tracks) or the removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas.

The Project site is located in a suburban portion of Vallejo and is bordered by existing residential development to the north and west, Rollingwood Drive and the Skyview Memorial Lawn Cemetery to the east, and vacant City-owned land to the south. The Project would redevelop the four baseball fields (with dugouts and bleacher structures), a

snack shack, and parking along Rollingwood Drive, with asphalt roads and residential uses consistent with the Mix of Housing Types/Medium Density (R-MH) land use designation and the Residential Medium Density (RMD) zoning district.

The R-MH designation is primarily for single-use, multi-family development, and applies to residential areas primarily characterized by parcels and buildings containing multiple residences, sometimes on several floors, and, in some instances, small commercial spaces. The RMD Zoning District is intended to create and establish regulations for a district with a mix of housing types, including attached and detached, and small apartment buildings, subject to density limits (up to twenty-five dwelling units per acre) and design and development standards to ensure land use compatibility.

Existing uses surrounding the Project site primarily consist of residential and cemetery uses. The Project site is bound by existing residential development to the north and west, Rollingwood Drive and Skyview Memorial Lawn Cemetery to the east, and a vacant City-owned plot of land to the south. The proposed residential development would be consistent and compatible with the surrounding uses. As depicted in Figures 2-2 (Aerial) and 2-4 (PDP) in Section 2 (Project Description) of this document, all roads included in the Project would be consistent with the size and scale of surrounding roads and would improve connectivity between the project site and surrounding area by adding an additional driveway to Rollingwood Drive. Furthermore, the Project would not construct a physical barrier to neighborhood access or remove an existing means of access, such as a bridge or roadway; therefore, it would not physically divide an established community. Accordingly, the Project would have no impact with respect to physically dividing an established community, and no mitigation measures are required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- b) **No Impact.** Land use impacts could be considered significant if the proposed Project would conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Environmental plans and policies are those that directly address environmental issues and/or contain targets or standards that must be met in order to preserve or improve characteristics of the city's physical environment. It should be noted that according to CEQA, policy conflicts do not, in and of themselves, constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. As such, associated physical environmental impacts are discussed in this Addendum under specific topical sections.

Also, as previously discussed in this checklist, the proposed Project was specifically contemplated in the prior CEQA documents. The development programs and updates analyzed in the General Plan, the subsequent Zoning Update and follow-up Housing

Element Update development of 130 residential units on the proposed Project site.¹⁰ Thus, the land use and density of the proposed Project align with the General Plan EIR, Zoning Code, and residential development standards therein and previously analyzed under CEQA.

Applicable local land use plans that regulate development on the Project site include the General Plan and the planning code. As described above, the Project site is within the R-MH land use designation which prioritizes residential development with front and rear yards and side yard setbacks. This designation permits a residential density of up to 25 dwelling units per acre. In addition, the Project site is zoned RMD, which allows for a mix of housing types, including single family residences, with up to 25 dwelling units per acre. This zoning district is consistent with the General Plan R-MH land use designation applicable to the Project site. The Project would develop the 17.76-acre Project site with 130 residential units, resulting in 7.3 dwelling units per acre, which is consistent with the residential density standard for the R-MH land use and RMD zoning designations. In addition, the Project would also require building permits, Development Review, Design Review, and Landscape Review. Therefore, the Project would have no impact with regards to conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, and no mitigation measures are required, less than the impacts identified in the prior CEQA documents.

Summary

Based on the above land use and planning analysis, the proposed Project would not result in new or substantially more severe significant land use and planning impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

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¹⁰ The Housing Element identifies Housing Site No. 68 (APN 0072170060), which is 11.06 acres that is the surplus Vallejo Unified School District property that is the northern portion of the proposed Project site. An approximately 6.7 acres (APN 0072170050) that is the southern portion of the proposed Project site is not part of Housing Site No. 68 analyzed in the General Plan EIR. The Housing Element anticipated development of 130 units on 11.06 acres; the proposed Project is 130 units on 17.76 acres.

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3.12 Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
MINERAL RESOURCES — Would the project:			
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☒	☐	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☒	☐	☐

Prior CEQA Documents' Findings

The General Plan EIR and the Zoning Update IS/MND identified no impacts regarding mineral resources as there are no formal mineral resource deposits located within the city limit. The State has formally identified a mineral commodity within Vallejo's Sphere of Influence (SOI), which is land over which the City does not have jurisdiction. However, the General Plan does not include land use or policy changes within the SOI that would be incompatible with the quarry. (2017 General Plan EIR pp. 6-3 – 6-4, 2021 IS/MND section 4.12) The Addendum to the General Plan EIR does not address mineral resources.

Discussion

- a, b) **No Impact.** For purposes of this analysis, mineral resources include sand, clay, gravel, and rock deposits that could be located within the project site and that would be of value to the region and residents of the state. The Project site does not contain known mineral resources or active mineral resource extraction operations (USGS, 2025). Furthermore, the City of Vallejo General Plan does not identify any mineral resources in the vicinity of the Project. Therefore, the Project would not result in the loss of availability of known mineral resources and would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impact would occur, same as the conclusion identified in certain prior CEQA documents.

Summary

Based on the above mineral resources analysis, the proposed Project would not result in new or substantially more severe significant mineral resources impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

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3.13 Noise and Vibration

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
NOISE — Would the project result in:			
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☒	☐	☐

Prior CEQA Documents' Findings

The prior CEQA documents identified less-than-significant impacts relating to noise and vibration, specifically regarding adherence to established noise level standards. The General Plan EIR also identified significant and unavoidable noise impacts resulting from temporary and permanent transportation-related noise and increases to ambient noise at sensitive land uses, even after the adherence to policies and mitigation measures. Mitigation measures were identified to reduce temporary/ construction noise impacts to less than significant. No impacts were identified pertaining to aircraft noise, since no airport, airfield, or aircraft operations exist nearby. (2017 General Plan EIR section 4.10; 2021 IS/MND section 13; 2024 Addendum p. 62)

Discussion

- a) **Less than Significant.** Bollard Acoustical Consultants, Inc (BAC) conducted a long-term (48-hour) noise level survey on June 29 – July 1, 2022 at the north end of the Project site (approximately 100 feet from the centerline of Rollingwood Drive). The ambient noise measurement location was specifically selected to be representative of the existing Rollingwood Drive noise environment on the east end of the project area. A Larson-Davis Laboratories (LDL) Model 820 precision integrating sound level meter was used to complete the ambient noise level survey. The meter was calibrated immediately before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy off the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

The existing ambient noise environment within the Project area is influenced primarily by traffic on Rollingwood Drive. The long-term ambient noise level results for the Project area are presented in **Table 3.13-1**.

TABLE 3.13-1
MONITORED NOISE ENVIRONMENTS WITHIN THE PROJECT AREA

Long-Term Noise Monitoring Location	Date	L _{dn} (db)	Average Measured Hourly Noise Levels			
			Daytime		Nighttime	
			L _{eq}	L _{max}	L _{eq}	L _{max}
North end of project area (approximately 100 feet from the centerline of Rollingwood Drive)	6/29-6/30	57	55	73	49	68
	6/30-7/1	58	55	76	50	69

SOURCE: BAC, 2022 (Appendix F).

Construction

Construction of the proposed Project would occur over a period of approximately 18 months starting in May of 2026. Construction will be conducted 6 days week, 7:00am to 7:00pm Monday through Friday and 9:00am to 6:00pm on Saturdays. No construction will take place on Sundays or on federal holidays.

Project construction would result in temporary increases in ambient noise levels. Weekday onsite construction activities would require the use of heavy construction equipment (e.g., excavator, loader, concrete saw) that would generate varying noise levels. Saturday construction activities would only include reduced noise level activities for interior building construction that do not require the use of mobile construction equipment. Offsite construction noise sources would consist of passing trucks and other construction-related vehicles accessing the site on local roadways. **Table 3.13-2**, Typical Maximum Noise Levels from Construction Equipment, shows typical noise levels produced by various types of construction equipment that would operate during the construction of the proposed Project.

TABLE 3.13-2
CONSTRUCTION EQUIPMENT NOISE LEVELS (50 AND 30 FEET FROM SOURCE)

Construction Equipment	Reference Noise Level	Noise Level at Nearest Receptor
Type of Equipment	L _{max} , dBA at 50 feet	L _{max} , dBA at 30 feet
Air Compressors	77.7	82.1
Concrete Mixer Trucks	78.8	83.2
Concrete Saws	89.6	94.0
Cranes	80.6	85.0
Dozers	81.7	86.1
Excavators	80.7	85.1
Forklifts	83.4	87.8
Generators	80.6	85.1
Graders	85.0	89.4
Pavers	77.2	81.7
Rollers	80.0	84.4
Scrapers	83.6	88.0
Tactors/Loaders/Backhoes	84.0	88.4
Welders	74.0	78.4

NOTES:

dBA = A-weighted decibels; L_{max} = maximum, instantaneous noise level experienced during a given period of time

These are maximum field measured values at 50 feet as reported from multiple samples.

SOURCE: Federal Highway Administration, *Roadway Construction Noise Model User Guide*, 2006.

The closest sensitive receptors are adjacent residences located approximately 30 feet east and north of the Project site on Hargus Avenue and Dryden Drive, and approximately 150 feet to the west of the Project site on Rollingwood Drive. Consistent with the general assessment methodology of the FTA, the two noisiest pieces of construction equipment (concrete saw and grader) listed in **Table 3.13-3** were assumed to operate simultaneously. Using the Roadway Construction Noise Model of the Federal Highway Administration, the resultant maximum noise level at the nearest receptor would be 94.0 dBA (see Appendix E) at the nearest residential receptor. These noise levels exceed the City of Vallejo's weekday threshold for low-density residential units of 75 dBA and would be required to operate 7:00 am to 7:00 pm. Because the Project will only operate these pieces of equipment between 7:00 am and 7:00 pm on weekdays, the use of weekday construction equipment does not conflict with the City of Vallejo Municipal Code. Saturday construction would be limited to reduced noise interior construction only, which would not use any mobile equipment. Once the exteriors of the houses are completed, Saturday activities may use smaller pieces of equipment such as air compressors and welders indoors. Because these small pieces of equipment pieces only be operated indoors, suppressing their sound from disturbing residences, Saturday construction activities would not conflict with the City of Vallejo's Municipal Code. Given that both weekday and Saturday construction activities will be consistent with the City's Municipal code, the Project will result in a less-than-significant impact and would not result in any

new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Construction crew commutes and the transport of construction equipment and materials to the Project site would incrementally increase noise levels on access roads leading to the Project site. Although there would be a relatively high single-event noise-exposure potential causing intermittent noise nuisance (passing trucks at 50 feet would generate up to a maximum of 87 dBA L_{max} over a few seconds), the effect on longer-term (hourly or daily) ambient noise levels would be small when averaged over a period of time (an hour, 8 hours, or 24 hours) with much lower ambient noise levels. The City of Vallejo General Plan normally acceptable noise exposure standards for single-family residences is 60 dBA, L_{dn}. Typically, a doubling of traffic (sound energy) is required to result in a perceptible increase in noise (Caltrans, 2013). Given the short duration of noise from passing trucks, the short-term construction-related impacts associated with worker commute and equipment transport to the Project site would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Operations

The analysis utilized the existing long-term ambient data collected during the BAC. Future traffic volumes on the roadway were conservatively assumed to increase by a factor of 50% in the future, resulting in a 2 dB increase in traffic noise levels relative to measured existing conditions. The predicted future Rollingwood Drive traffic noise levels were projected to the outdoor activity areas (backyards) and building facades proposed nearest to the roadway based on a 4.5 dB decrease per doubling of distance from the noise source. The long-term traffic noise level estimates are summarized in Table 3.13-3.

TABLE 3.13-3
ESTIMATED FUTURE EXTERIOR TRAFFIC NOISE LEVELS AT THE PROJECT SITE.

Roadway	Location Description	Predicted L _{nd} (dBA) ^{a, b}
Rollingwood Drive	Nearest backyards	56

NOTES:

a Predicted future traffic noise levels based on a reference noise level of 60 dB DNL at 100' which includes a +2 dB increase to account for a doubling of traffic volumes over 20 years.

b Predicted future traffic noise levels at the nearest backyards include a -5 dB offset to account for screening of roadway provided by proposed building envelopes.

SOURCE: Bollard Acoustical Consultants, Inc. (2022)

As shown in Table 3.13-3, the estimated long-term future traffic noise levels would not exceed the City of Vallejo General Plan single-family residential noise exposure threshold of 60 dBA. Therefore, the long-term traffic noise levels associated with the Project are less than significant.

Based on the analysis above, the proposed Project is not expected to cause a substantial temporary or permanent noise level increase that conflicts with the City of Vallejo Municipal Code. Therefore, the Project's noise impacts are considered less than significant, also less than identified in the prior CEQA documents.

- b) **Less than Significant.** Ground-borne vibration from onsite equipment, such as large dozers, would produce vibration. Because the City of Vallejo Municipal Code sets a qualitative construction vibration standard limiting vibrations to no discernable levels without an instrument, the Project's potential vibration will be compared against the Federal Transit Administration's (FTA) vibration standards for building damage and human annoyance.

For potential building damage, this analysis uses the FTA's threshold for masonry category III, non-engineered timber and masonry buildings, of 0.3 PPV (in/sec), which is a conservative threshold for the type of residential buildings that surround the construction site. The nearest structures to the Project site are single-family residences approximately 30 feet to the north and to the east. As discussed in Section 3.5, *Cultural Resources*, of this Addendum, there are no historical sites near the Project site that could be impacted by vibration. The highest vibration generating construction equipment planned for the project is a large dozer. The typical reference vibration level for a large dozer is 0.089 peak particle velocity (PPV) (in/sec) at 25 feet. When measured at the nearest single-family residence structures, 30 feet from the Project site, the vibration levels would be 0.072 PPV¹¹, which is well below the FTA's threshold for potential building damage.

For potential human annoyance, this analysis uses the FTA's human perceptions of ground borne vibration. According to the FTA, vibrations levels of 0.035 are considered barely perceptible, while vibration levels of 0.24 are considered distinctly perceptible. The Project vibration levels of 0.072 PPV would be considered barely perceptible by FTA standards.

Based on the information above, the Project would not exceed the construction vibration criteria levels for building damage or human annoyance set forth by the FTA or the City of Vallejo Municipal Code. Therefore, the Project's vibration impact would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- c) **No Impact.** The closest airport is Napa County Airport, approximately 8 miles northwest of the proposed Project site. The proposed Project site is well outside of the 60 CNEL noise contours for the airport (Napa County, 2024). Therefore, Project occupants would not be exposed to excessive noise levels generated by aircraft, and there would be no impact with respect to this criterion and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

¹¹ Calculated using Caltrans vibration propagation formulas for construction equipment (Caltrans 2020)

Summary

Based on the above noise and vibration analysis, the proposed Project would not result in new or substantially more severe significant noise or vibration impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.14 Population and Housing

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
POPULATION AND HOUSING — Would the project:			
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☒	☐	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☒	☐	☐

Prior CEQA Documents' Findings

The General Plan EIR determined that buildout of the General Plan would have less-than-significant impacts on population and housing.) Per the Addendum to the General Plan EIR (verbatim text shown italicized), *the proposed Housing Element would increase the total number of units by 2,448 and result in approximately 6,683 more potential residents than identified in the General Plan EIR. The units included in the proposed Housing Element are not anticipated to surpass the population and housing estimates outlined in the General Plan EIR. According to the EIR, the General Plan can accommodate up to 142,744 people and 53,250 housing units by 2040 (Vallejo 2016, pg. 3-32). Vallejo has a population of 121,558 and 45,715 housing units (DOF 2024). The proposed Housing Element would add 1,059 housing units and approximately 2,891 residents, bringing the total to 124,449 residents and 46,774 housing units by 2031. Therefore, since the additional units from the proposed Housing Element are not expected to exceed the General Plan EIR's buildout projections, the impacts analyzed in the EIR would adequately address the proposed changes. This additional growth would not be considered "unplanned" growth. Furthermore, the proposed project would not result in any actions that would displace a significant number of people.* (2017 General Plan EIR section 4.11; 2021 IS/MND section 4.14; 2024 Addendum p. 63)

Discussion

- a) **Less than Significant.** According to the U.S. Census Bureau's 2020 Decennial Census, the city of Vallejo had an estimated population of about 126,090 residents and 45,523 housing units in 2020. During peak construction periods, the Project would require up to approximately 47 workers per day, which would likely be filled by workers already living in the Bay Area.¹² The Project would result in the development of 130 residential units on the Project site. Based on the average household size in the city of Vallejo of approximately 2.9 persons per household¹³, the addition of 130 residential units would

¹² Workers per day based on one-way worker trips for the peak construction phase (Building Construction), calculated by the CalEEMod outputs for the Project, based on the Project construction schedule, **Appendix A**.

¹³ (126,090 city population / (45,523 total housing units in the city – 1,984 vacant housing units in the city)) = 2.9 persons per household

increase the population by approximately 377 residents.¹⁴ Implementation of the Project would incrementally increase the population of Vallejo by approximately 0.3 percent.¹⁵ However, this estimate is conservative as the prior CEQA documents – the General Plan EIR, its Housing Element Addendum, as well as for the Zoning Update IS/MND – contemplated development of the proposed 130 residential units on the Project site, as described in Section 2.3 of this document.

According to the Plan Bay Area 2050, south Solano County is projected to have an increase of approximately 5,000 households between 2015 and 2050. The City of Vallejo 2023-2031 Housing Element projected that housing needs in Vallejo between 2023-2031 would be 2,900 units, consisting of 345 extremely low income (0 to 30 percent average median income (AMI), 345 very low income (31 to 50 percent AMI), 369 low income (51 to 80 percent AMI), 495 moderate income (80 to 120 percent AMI), and 1,346 above moderate income (above 121 percent AMI). Implementation of the Project would result in approximately 2.6 percent of the projected housing increase in south Solano County through 2050¹⁶ and 4.4 percent of the projected housing increase in Vallejo through 2031.¹⁷ Altogether, the Project would be within the population growth projected by the Plan Bay Area 2040 and the City's Housing Element.

In general, a project would be considered growth inducing if its implementation would result in substantial unplanned population growth in an area, either directly or indirectly. As discussed above, the Project would not result in “substantial” population growth in comparison to the amount of population growth anticipated for south Solano County and Vallejo in the future. In addition, the Project would not indirectly induce substantial unplanned residential population growth in the project area because the Project site is surrounded by suburban development and the Project's residents would utilize existing infrastructure for public services and utilities. Therefore, the Project would have a less-than-significant impact on population growth, and no mitigation measures are required and would not result in any new significant or substantially greater impacts as the impacts as identified in the prior CEQA documents.

- b) **No Impact.** The Project would construct 130 residential units on the Project site currently occupied by four baseball fields (with dugouts and bleacher structures), a snack shack, and parking along Rollingwood Drive. The Project site does not contain any structures or provide housing or employment. The Project would not demolish or displace any existing housing units or businesses and therefore would not necessitate the construction of replacement housing. Therefore, the Project would have no impact related to the displacement of housing units or people, and no mitigation measures are required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

¹⁴ (130 residential units * 2.9 persons per household) = 377 new residents

¹⁵ ((377 new residents) / 126,090 city population) * 100 = 0.27 percent

¹⁶ (130 residential units / 5,000 projected housing units in south Solano County) * 100 = 2.6 percent

¹⁷ (130 residential units / 2,900 projected housing units in Vallejo) * 100 = 4.4 percent

Summary

Based on the above population and housing analysis, the proposed Project would not result in new or substantially more severe significant population and housing impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.15 Public Services

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
PUBLIC SERVICES —			
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:			
i) Fire protection?	☒	☐	☐
ii) Police protection?	☒	☐	☐
iii) Schools?	☒	☐	☐
iv) Parks? (<i>See discussion in Section 3.16, Recreation, for consistency with the prior CEQA documents.</i>)	☒	☐	☐
v) Other public facilities?	☒	☐	☐

Prior CEQA Documents' Findings

The General Plan EIR determined that the General Plan would result in less-than-significant impacts to public services, although anticipated population and employment growth would result in a significant increase in student population and police and fire staffing in the long term – neither of which are considered environmental effects under CEQA and these increases do not equate to new or physically altered governmental facilities. Moreover, the General Plan EIR determined that increased student population would be accommodated by existing school facilities and through new planned facilities. (2017 General Plan EIR section 4.13; 2024 Addendum p. 63)

As indicated in the Addendum to the General Plan EIR (verbatim text shown italicized), the Housing Element's resulting *additional units and residents have the potential to increase the need for public services that may result in additional facilities being constructed or expanded. However, all development projects would be subject to the Fire Department standards related to fire hydrants, water fire flow requirements, spacing of hydrants, sprinkler systems, and other fire codes such as those required in the most recent CBC and Fire Code standards. Furthermore, to mitigate such impacts and fund facility improvements, the City levies development impact fees for fire protection, police protection, and school services, as mentioned in the City's Municipal Code (Chapter 3.06, Public Facilities Impact Mitigation Fee, and Chapter 3.14, School Facilities Impact Mitigation Fee).* Therefore, any additional public service impact under the Housing Element would be reduced to less than significant. (2024 Addendum p. 63)

The Zoning Update IS/MND also determined less-than-significant impacts regarding public services. (IS/MND section 4.15)

Discussion

As previously indicated in Section 3.14, *Population and Housing*, and initially in Section 2.3 of this document, development of 130 residential units on the proposed Project site and associated approximately 377 residents were contemplated in future development scenarios in the General Plan EIR, its Housing Element Addendum, as well as for the Zoning Update IS/MND. Thus, the potential effects of the proposed Project were already factored into the impact analysis in those prior CEQA documents. Conservatively, the following discusses the Project's specific potential effects regarding public services.

a.i) **Less than Significant.**

Implementation of the Project would increase the demand for fire protection and emergency medical response services over existing conditions due to the increase in the residential population on the Project site. As part of its required compliance with all applicable General Plan policies and regulations that pertain to new residential development on the Project site, the Project would foremost be subject to the City's Public Facilities Impact Mitigation Fee, which would provide funding for required public facilities in the City to meet the increased demands from new development. In addition, the fire department would review the site plans, fire truck access, and site fire flow design for the Project to ensure that adequate emergency access is provided prior to issuance of a building permit. Project design features incorporated into the structural design and layout of the residential units would keep service demand increases to a minimum. For example, the Project would be required to comply with all applicable building and fire codes, which establish requirements pertaining to building materials and fire protection systems. Access to the Project site would be provided via two connections to Rollingwood Drive, and the new streets would be developed in accordance with City and fire code standards to allow fire trucks and emergency vehicles ease of access and maneuverability throughout the Project site. In addition, the Project would include 16 new fire hydrant assemblies, building connections, and 8-inch fire water lines to provide for fire protection.

Therefore, the Project would not require the construction of new fire protection facilities and would have a less-than-significant impact on fire protection and emergency services and no mitigation measures would be required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

a.ii) **Less than Significant.** The proposed development would incrementally increase the number of police service calls in the project area. The City's February 2025 *Staffing and Response Update* report listed four phases to adjust for lower staffing in the police department. These steps included service model reduction (Phase 1), rotation of officers to patrol shifts (Phase 2), temporarily collapse the traffic division (Phase 3), and modify patrol shifts to 12-hours or another staffing model (Phase 4). The report indicates that phases one through three have been completed and that phase 4 does not appear to be needed due to recent staffing trends (VPD, 2025a).

As previously discussed, the increase in residential population with the Project is within the anticipated growth for the area, pursuant to the General Plan EIR. As part of its required compliance with all applicable General Plan policies and regulations that pertain to new residential development on the Project site, the Project would be subject to the City's Public Facilities Impact Mitigation Fee, which would provide funding for required public facilities in the City to meet the increased demands from new development. As such, the Project would not require the construction of new or alteration of police existing facilities. Therefore, the impact on police services would be less than significant, and no mitigation measures would be required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- a.iii) **Less than Significant.** The Project site is within the attendance area of Pennycook Elementary School (3620 Fernwood Drive), Hogan Middle School (850 Rosewood Avenue), and Jesse Bethel High School (1800 Ascot Parkway). Enrollment in VCUSD schools during the 2023-2024 school year was 11,799 students. VCUSD school enrollment has been declining for the past five years with its peak enrollment being 13,735 students during the 2019-2020 school year (CDE, 2025). The schools within the attendance area for students on the Project site have experienced similar declines in enrollment during the past couple years.

Some of the new residents of the Project would consist of families with school-age children who might attend VCUSD schools. Therefore, the Project would generate a direct incremental increase in the demand for school services. Given the decline in enrollment, existing facilities have adequate capacity for the new students, and foremost, the Project would be required to pay school impact fees in compliance with SB 50. According to California Government Code Section 65996, payment of school impact fees that may be required by a State or local agency constitutes full and complete mitigation of school impacts from development. Therefore, physical impacts associated with the provision of or need for new or physically altered school facilities as a result of the Project would be less than significant and no mitigation measures would be required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- a.iv) For consistency with the prior CEQA documents, this public services criterion for parks is addressed under parks and recreation. See Section 3.16, *Recreation*, below.
- a.v) **Less than Significant.** In 2021, Solano County Library (SCL) prepared a 20-year Facilities Master Plan to prepare for the population growth within its service area. At the time of the Facilities Master Plan, the SCL had nine existing library facilities to serve the entire county of almost 450,000 residents, except for the City of Benicia which has its own library. The Facilities Master Plan proposed several capital projects to rebalance and expand SCL branches including: maintaining and updating the Fairfield Civic Center Library and Fairfield Cordelia Library; renovating the John F Kennedy Library and Rio Vista Library; refocusing the Springstowne Library on high value services for the local

neighborhood; renovating and expanding the Vacaville Town Square Library, Vacaville Cultural Center Library, Suisun City Library, and Dixon Public Library; and building new libraries of at least 15,000-20,000 square feet in Vallejo and Fairfield to address future population growth. The Facilities Master Plan determined that if SCL implements these recommendations, only Rio Vista would not achieve the target range of 0.4-0.5 square feet of library space per resident by 2040 (SCL, 2021).

As part of its required compliance with all applicable General Plan policies and regulations that pertain to new residential development on the Project site, the Project would be required to comply with the City's Municipal Code Chapter 3.06, Public Facilities Impact Mitigation Fee, which requires new development to contribute fees to accommodate their fair share of impacts to public facilities such as libraries. Therefore, the Project's impact to libraries would be less than significant and no mitigation measures would be required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Summary

Based on the above public services analysis, the proposed Project would not result in new or substantially more severe significant noise or vibration impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

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3.16 Recreation

Issues (and Supporting Information Sources):	Equal or Less Severity of Impact Previously Identified in Previous EIR	Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR	New Significant Impact
RECREATION			
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	☒	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☒	☐	☐

Prior CEQA Documents’ Findings

The Addendum to the General Plan EIR discusses (verbatim text shown italicized) of the General Plan EIR [t]*The City currently exceeds its service goal for parkland. The 6,683 additional residents associated with the proposed project would generate a need for approximately 12.3 acres of parklands to meet the City’s service goal. In addition, the new demand would reduce the ratio to 7.4 acres per 1,000 persons, which still exceeds the City’s standard.* Since future project-specific development under the General Plan and the Housing Element would be required to adhere to General Plan policies that would help ensure that park and recreation facility goals are met and that facilities are maintained, in addition to other various State and local regulations, including the payment of development fees, less-than-significant parks and recreation impacts were identified. (2017 General Plan EIR section 4.11; 2024 Addendum p. 62-63) The Zoning Update IS/MND findings remained consistent with the General Plan EIR. (IS/MND section 4.16)

Discussion

As previously indicated in Section 3.14, *Population and Housing*, and initially in Section 2.3 of this document, development of 130 residential units on the proposed Project site and associated approximately 377 residents were contemplated in future development scenarios in the General Plan EIR, its Housing Element Addendum, as well as for the Zoning Update IS/MND. Thus, the potential effects of the proposed Project were already factored into the impact analysis in those prior CEQA documents. Conservatively, the following discusses the Project’s specific potential effects regarding parks and recreation facilities.

- a) **Less than Significant.** Implementation of the proposed Project would increase the demand for parks and recreational facilities over existing conditions due to the increase in the residential population on the Project site. The approximately 377 new residents generated by the Project would represent an approximate 0.3 percent increase over the existing citywide population. Given the City’s current population of 126,090 residents, the City currently has 7.33 acres of parkland per 1,000 residents, which is above the

standard of 4.25 acres of parkland per 1,000 residents adopted by the General Plan.¹⁸ Development of the Project would decrease this ratio to approximately 7.31 acres of parkland per 1,000 residents.¹⁹ However, this still meets the City's parkland to residents standard.

The anticipated use of parks and recreational facilities by new residents of the proposed Project would not be expected to substantially increase or accelerate the physical deterioration or degradation of existing resources and would not result in the need to provide new or expanded parks or recreational facilities since the parkland per 1,000 residents ratio would remain above the City's standard. The proposed Project's adherence to existing State and local regulations will ensure existing parks are maintained such that increased use from Project development would not result in the substantial physical deterioration of parks and recreational facilities or accelerate the deterioration of parks and recreational facilities. Pursuant to the City's Municipal Code Chapter 3.18, the City requires developers of residential land to either dedicate land at a rate of 4.25 acres per 1,000 persons, or pay a Park Impact Fee per residential unit (Municipal Code Chapter 3.18.170(b)). Furthermore, the City collects a parkland dedication fee as authorized under California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act which allows cities to require that developers set aside land, donate conservation easements, or pay fees in lieu of providing land as part of the land subdivision process. Therefore, the Project's impact to parks and recreation would be less than significant and no mitigation measures would be required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- b) **No Impact.** The proposed Project does not propose any recreational facilities or require the construction or expansion of recreational facilities. Therefore, the proposed Project would have no impact, less than identified with the prior CEQA documents.

Summary

Based on the above parks and recreation analysis, the proposed Project would not result in new or substantially more severe significant parks and recreation impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

City of Vallejo. 2017. *Propel Vallejo General Plan 2040*. Adopted August 29, 2017. Amended December 31, 2024. Available: <https://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=17961496>. Accessed March 28, 2025.

¹⁸ $924.17 \text{ acres of parks and open space} / (126,090 \text{ current City population} / 1,000) = 7.33 \text{ acres of parkland per } 1,000 \text{ residents.}$

¹⁹ $924.17 \text{ acres of parks and open space} / (126,467 \text{ City population plus Project} / 1,000) = 7.31 \text{ acres of parkland per } 1,000 \text{ residents.}$

- City of Vallejo. 2021. *City of Vallejo New Zoning Code Revised Initial Study/Mitigated Negative Declaration*. 2021. April, 2021. Available: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.vallejo.gov/common/pages/GetFile.ashx?key=7xESAQLv. Accessed June 12, 2025.
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- Greater Vallejo Recreation District (GVRD). 2020. *Greater Vallejo Recreation District 10-Year Comprehensive Parks and Recreation Master Plan*. Available: https://www.gvrd.org/files/904fc5a60/GVRD+10-YR+Master+Plan+Final+01+28+22.pdf. Accessed April 1, 2025.
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3.17 Transportation

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
TRANSPORTATION — Would the project:			
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☒	☐	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☒	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐
d) Result in inadequate emergency access?	☒	☐	☐

Transportation Study

A Transportation Impact Analysis (TIA) was prepared for the Project site by Fehr & Peers (Fehr & Peers, 2025) in accordance with the *City of Vallejo Traffic Impact Analysis/Study Guidelines* (“Guidelines”) (Public Works Department) guidelines and methodologies. This section incorporates the analysis from that document, as it is determined technically suitable upon review by the City of Vallejo Public Works. The section report summarizes the Project’s effect on Vehicle Miles Travelled (VMT) for CEQA purposes. The full TIA is included as **Appendix D** to this document. The TIA also includes a Level of Service (LOS) analysis for informational/non-CEQA analysis to ensure General Plan consistency, which is discussed in the criteria herein.

Prior CEQA Documents’ Findings

Summarizing from the Addendum to the General Plan EIR prepared for the Housing Element Update (verbatim text shown italicized), *the General Plan EIR identified significant and unavoidable impacts on motor vehicle traffic from the General Plan. While traffic impacts are no longer considered significant under CEQA, the General Plan EIR determined that implementation of the General Plan would also result in increased transit travel times on transit corridors. This indicates that the General Plan would conflict with a program, plan, ordinance, or policy for transit facilities, which would result in a significant and unavoidable impact.* Considering other current CEQA thresholds, [t]*The General Plan EIR also conducted a VMT analysis that determined that VMT levels per capita would decrease from the existing condition with the implementation of the General Plan. Although the proposed Housing Element would add 2,448 units and approximately 6,683 residents, these units would be infill development that is assumed to reduce VMT. Furthermore, the General Plan EIR states that the General Plan would have a beneficial impact on pedestrian and bicycle circulation and access and does not analyze potential impacts to emergency access or increases in hazards due to road design. The proposed Housing Element would not result in obstructed access for emergency vehicles, nor does it*

propose any roadway improvements that may result in hazardous conditions. All projects under the General Plan and proposed project would comply with the City's standards resulting in less-than-significant impacts for all additional transportation topics. Therefore, transportation and traffic impacts currently pertinent to CEQA were identified as less than significant in the prior CEQA documents. (2017 General Plan EIR section 4.14; 2024 Addendum p. 64; IS/MND section 4.17)

Discussion

- a) **Less than Significant.** The proposed Project would develop 130 single family detached homes west of Rollingwood Drive and south of Dryden Drive. See Figures 2-3 (VTM) and 2-4 (PDP) in Section 2, *Project Description*, of this document, which show the site plan and street layout of the proposed Project. The Project site access would be provided via roadway connections to Rollingwood Drive at Pope Drive and a new tee intersection on Rollingwood Drive several hundred feet south of Pope Drive.

With the passage of Senate Bill 743 (SB 743) in 2020, automobile delay, LOS, or other similar measures of vehicular capacity or traffic congestion are no longer required (or allowed) as a basis for determining a project's impacts to the transportation system within CEQA. However, to ensure consistency with the City's General Plan and published Guidelines, the Project's effect on intersection operations was evaluated at six study intersections along local vehicular access roads to the Project site, (Georgia Street, Benicia Road, Glen Cove Parkway, and Robles Way) in an area generally bound by regional access points to the study area: Interstate 80 (I-80) and Interstate 780 (I-780). The overall area is referred to as "study area" in the TIA, as illustrated in Figure 1 (*Project Site Location and Study Intersections*) of the TIA in Appendix D. Under Opening Year and Cumulative conditions, the Project was not found to degrade traffic operations below the City's level of service policies at any of the study intersections, as documented in Appendix D and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents, for which mitigation measures were identified.

Trip Generation

Project trip generation was estimated using rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11th Edition)*. **Table 3.16-1** shows that the proposed Project is expected to generate 1,226 daily, 91 morning peak hour and 122 evening peak hour trips on a typical weekday

TABLE 3.16-1 WEEKDAY VEHICLE TRIP GENERATION ESTIMATES

Use	ITE Land Use Code	Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Single Family Residential Detached	210	130	1,226	23	68	91	80	47	122

Source: ITE *Trip Generation Manual*, 11th Edition, Fehr & Peers, 2025.

Traffic Conditions

As detailed in Appendix D, the TIA, Project Opening Year traffic conditions with and without the addition of traffic generated by the Project would not result in unacceptable conditions. The Project Opening Year conditions analysis considers approved projects within the study area that are expected to be constructed and occupied in the next three years. No roadway improvements or modifications were identified or assumed at the study intersections for the analysis of Project Opening Year conditions as none are currently proposed or under consideration.

The TIA is based on the Project's trip generation, traffic volumes and lane configurations, and all study intersections are expected to operate acceptably under the Opening Year Conditions, with and without the Project. Similarly, under Cumulative Conditions with and without the Project, which considers forecasts of future development within the City of Vallejo and representative of conditions over the next 20 years and as described in the General Plan, all study intersections are expected to operate acceptably under the Cumulative Conditions, with and without the Project, for which mitigation measures were identified. Detailed calculation sheets are provided in Appendix B of the TIA in Appendix D.

Site Plan Review

A detailed site plan review was conducted for the Project, and recommendations were identified to improve site access and circulation.

Vehicular Access/Circulation. Vehicle access to the Project site would be provided via the two driveways on Rollingwood Drive, as illustrated in Figures 2-3 (VTM) and 2-4 (PDP) in Section 2, *Project Description*. Both driveways would be stop controlled on the minor street approaches, with traffic on Rollingwood Drive being uncontrolled. As depicted in Figures 2-3 and 2-4, the northern and southern Project driveways, referred to as Street A and Street C, respectively, will connect internally to proposed Streets B, D, and E, and will culminate in two cul-de-sacs on the westernmost side of the Project site. The Project provides adequate vehicular access to and within the Project site.

Pedestrian Access/Circulation. The Project would not result in a significant impact related to the pedestrian system if any of the following criteria are met (would the project):

- Disrupt existing pedestrian facilities; or
- Interfere with planned pedestrian facilities; or
- Create inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.

The Project would construct sidewalks along all internal roadways. In addition, the Project would construct sidewalks along its Rollingwood Drive frontage. The Project does not propose any features that would be hazardous to pedestrian travel and would not conflict with any pedestrian facilities plans or programs. The Project proposes to install high visibility crosswalks on all four legs of the Rollingwood Drive/Pope Drive/Project Driveway intersection. Therefore, the Project is not expected to result in significant adverse impacts related to pedestrian facilities. In summary, no significant adverse impacts relative to pedestrian access and circulation would result with the Project. No significant adverse impact is identified, and no mitigation measures are required and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Bicycle Circulation/Facilities. Development projects that result in a significant impact related to the bicycle system if any of the following criteria are met (would the project):

- Disrupt existing bicycle facilities; or
- Interfere with planned bicycle facilities; or
- Create inconsistencies with adopted bicycle system plans, guidelines, policies, or standards.

While the Project does not propose any new designated bicycle facilities (lanes, routes, or paths), bicycles would be permitted on site. The Project does not propose any features that would be hazardous to bicycle travel and would not conflict with any bicycle facilities plans or programs. The Project would not result in significant adverse impacts related to bicycle facilities and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Emergency Vehicle Access. Several factors determine whether a Project has adequate access for emergency vehicles, including the following:

- 1) Number of access points (both public and emergency access only)
- 2) Width of access points
- 3) Width of internal roadways

Emergency vehicle access to the site is provided via the two proposed driveways on Rollingwood Drive. Internal roadways are of sufficient width to accommodate emergency vehicles. The Project is not expected to result in significant adverse impacts related to emergency vehicle access.

Transit Access. Development projects that result in a significant impact related to transit service if either of the following criteria are met:

- The Project interferes with existing transit facilities or precludes the construction of planned transit facilities.

The Project does not include any features which conflict with existing or planned transit services. The Project is not expected to result in increases in ridership on local or regional transit facilities that would exceed their capacity. Significant adverse impacts related to transit were not identified, and the Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Hazards. Along the Project's frontages the posted speed limit on Rollingwood Drive is 25 miles per hour. Table 201.1 of the *Caltrans Highway Design Manual* (HDM) states that the stopping sight distance standard for a design speed of 25 miles per hour is 150 feet. Field observations of existing sight distance at the proposed driveway locations on Rollingwood Drive appear adequate to meet Caltrans' requirement. As proposed, the Project does not present any hazardous conditions related to transportation facilities.

In summary, the Project would not conflict with any program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The impact would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents. No mitigation measures are required. Non-CEQA **Improvement Recommendation Measure #1 (Crosswalks)** is specified to improve pedestrian circulation.

- b) **Less than Significant.** Criterion "b" is the formal implementation of the SB 743 requirement to analyze VMT as part of the CEQA Transportation section. As previously discussed under criterion "a", Guidelines were updated in 2020 per Senate Bill 743 to remove level of service from CEQA analysis and require the use of VMT to evaluate a project's environmental impact on the transportation system. VMT measures the amount of driving generated by a project and thereby its effects on the environment from those miles traveled. The City of Vallejo formally adopted locally applicable CEQA metrics, methodology, and significance criteria in July 2020, published in the City of Vallejo's *CEQA Transportation Impact Analysis Guidelines* (July 2020).

Analysis Methodology and Threshold

VMT Screening Methodology. The City of Vallejo's CEQA Transportation Impact Analysis Guidelines (July 2020) provide for a three step VMT screening process, as follows:

- Step 1 – Transit Priority Area (TPA) Screening – Projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary.
- Step 2 – Low VMT Area Screening – Residential and office projects located within a low-VMT generating area of the city may be presumed to have a less than significant impact absent substantial evidence to the contrary.

- **Step 3 – Project Type Screening** – Local-serving retail projects less than 50,000 square feet in size and other local-serving community uses may be presumed to have a less than significant impact absent substantial evidence to the contrary.

The proposed Project does not satisfy any of the established screening criteria related to VMT. As such, it cannot be presumed to have a less than significant impact relative to VMT, and a detailed VMT assessment is required.

The Solano Napa Activity Based travel demand model (SNABM) was used to estimate average daily vehicle miles of travel for the proposed Project. Per the City's guidelines, daily VMT per resident was used to evaluate the Project's effects on VMT.

VMT Analysis

Table 3.16-2 presents the results of the VMT analysis conducted for the proposed Project using SNABM and accounting for the Project's increased density over and above that of the surrounding residential neighborhood.

As a residential Project, the relevant threshold of significance is total daily VMT per resident measured against the citywide average, in both the baseline and cumulative scenarios. The weekday daily average VMT per resident along with the Project's VMT per resident are presented in **Table 3.16-2**

TABLE 3.16-2 VMT ANALYSIS SUMMARY

Scenario	Daily Citywide Average VMT per Resident	Project Daily Residential VMT per Resident	Impact?
Baseline	24.5	22.6	No
Cumulative	24.3	22.6	No

Source: SNABM, Fehr & Peers, April 2025.

As summarized above, the Project's daily VMT per resident is expected to be 22.6 during Baseline and Cumulative Conditions, which is below the daily citywide average per resident. Therefore, the Project is expected to result in a less-than-significant impact relative to VMT and no mitigation measures are required. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents

- c, d) **Less than Significant.** The proposed Project would not include changes to existing roadways during construction or operations, temporarily or permanently. Therefore, the Project would not result in a design feature that could substantially increase hazards as a result of design features or incompatible uses. Project construction would add a temporary and negligible amount of vehicle traffic to existing roadways, which would not result in any traffic conditions that would permanently impede emergency access. There would be no impact, same as identified in the prior CEQA documents. No mitigation

measures are required. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Summary

Based on the above transportation analysis, the proposed Project would not result in new or substantially more severe significant transportation impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

- City of Vallejo. 2018. *Propel Vallejo General Plan 2040*. Available online at: <https://www.cityofvallejo.net/common/pages/DisplayFile.aspx?itemId=17961496>. Accessed May 5, 2025
- City of Vallejo. 2021. *City of Vallejo New Zoning Code Revised Initial Study/Mitigated Negative Declaration*. 2021. April, 2021. Available: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.vallejo.gov/common/pages/GetFile.ashx?key=7xESAQLv. Accessed June 12, 2025.
- City of Vallejo. 2024. *City of Vallejo 2023-2031 Housing Element*. Adopted December 30, 2024. Available: <https://www.vallejo.gov/common/pages/GetFile.ashx?key=UN86AZUh>. Accessed March 28, 2025.
- City of Vallejo. 2024. *Addendum to the General Plan EIR for the City of Vallejo 2023-2031 Housing Element Update*. Adopted December 30, 2024. Available: <https://www.cityofvallejo.net/common/pages/GetFile.ashx?key=Rd86AYAh>. Accessed June 13, 2025.
- Fehr & Peers. 2025. *Final Transportation Impact Analysis – Vallejo /Rollingwood Residential Development*. April 2025. (Appendix D to the Initial Study Checklist.)
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3.18 Tribal Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
TRIBAL CULTURAL RESOURCES —			
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:			
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☒	☐	☐

Setting

Background Research

As previously summarized in Section 3.5, *Cultural Resources*, in this Checklist, ESA contacted the California State Native American Heritage Commission (NAHC) on January 24, 2025, to request a search of the NAHC's Sacred Lands File and a list of Native American representatives who may have knowledge of tribal cultural resources in the Proposed Project site. The NAHC replied to ESA by email on January 27, 2025, with the statement that the Sacred Lands File does not have any record of sacred sites within the Project site. The NAHC response also included a list of Native American representatives from eight tribal groups who may have knowledge of tribal cultural resources in the Project site.

On March 31, 2025, the City sent letters via certified mail to the tribal representatives on the NAHC list. The letters included a description of the Project, a figure showing the Project location, and a request to consult on the Project. On April 8, 2025, Wilton Rancheria provided a response via email that although the proposed Project is within the ancestral territory of the Tribe, they do not have any comments.

See Section 3.5, *Cultural Resources* for a summary of the Northwest Information Center (NWIC) records search and archaeological resources sensitivity assessment.

Prior CEQA Documents' Findings

Although tribal consultation in compliance with AB 52 was not required for the General Plan EIR because the Notice of Preparation for the EIR was filed prior to July 1, 2015, when the Native American Historic Resource Protection Act became effective, the EIR addressed tribal cultural resources. The General Plan EIR determined a less-than-significant impact since future development will comply with General Plan policies associated with early consultation with Native American parties with interest in the City. As a result of consultations, a project will comply with provisions for avoidance and protection of tribal cultural resources before development occurs. (General Plan EIR, p. 4.4-22) The Addendum to the General Plan EIR and the Zoning Update IS/MND determined the same.

Discussion

- a.i/ii) **Less than Significant.** CEQA requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in PRC Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, on the national, State, or local register of historical resources.

Based on the NWIC records search and surface survey, there are no known archaeological resources that could also be considered tribal cultural resources listed or determined eligible for listing in the California Register of Historical Resources, or included in a local register of historical resources as defined in PRC Section 5020.1(k), pursuant to PRC Section 21074(a)(1), that would be impacted by the Project. To date, no tribal cultural resources have been identified by Native American representatives. In addition, the City did not determine any resource that could potentially be affected by the Project to be a significant tribal cultural resource pursuant to criteria set forth in PRC Section 5024.1(c).

In the event of an unanticipated discovery, the City of Vallejo shall comply with Public Resources Code Section 21083.2(i), which requires the lead agency to make provisions for archaeological resources (including those considered to be tribal cultural resources) accidentally discovered during construction. The City of Vallejo would be required to make an immediate evaluation by a qualified archaeologist, and if the find is determined to be a tribal cultural resource, then it must be avoided. If avoidance is not feasible, the resource must be recovered and treated accordingly, specifically in coordination with the consulting Native American tribe(s). With implementation of these regulations, impacts to tribal cultural resources would be considered less than significant, and the Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Summary

Based on the above tribal cultural resources analysis, the proposed Project would not result in new or substantially more severe significant tribal cultural resources impacts than identified in the prior

CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

City of Vallejo. 2016. *General Plan 2040 and Sonoma Boulevard Specific Plan Draft EIR*. July 2016. Available:
<https://www.cityofvallejo.net/common/pages/GetFile.ashx?key=IRISAczs>. Accessed May 2, 2025.

City of Vallejo. 2021. *City of Vallejo New Zoning Code Revised Initial Study/Mitigated Negative Declaration*. 2021. April, 2021. Available: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://www.vallejo.gov/common/pages/GetFile.ashx?key=7xESAQLv>. Accessed June 12, 2025.

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<https://www.cityofvallejo.net/common/pages/GetFile.ashx?key=Rd86AYAh>. Accessed June 13, 2025.

Native American Heritage Commission, Sacred Lands File search. January 2025.

3.19 Utilities and Service Systems

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
UTILITIES AND SERVICE SYSTEMS —			
Would the project:			
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☒	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☒	☐	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☒	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☒	☐	☐

Prior CEQA Documents' Findings

The prior CEQA documents identified less-than-significant impacts for all utilities and services system criteria. The General Plan EIR states that the General Plan would have less-than-significant impacts on utilities and service systems. As summarized in the Addendum to the General Plan EIR to assess the Housing Element Update (verbatim text shown italicized), *[b]By adding 2,448 units and 6,683 residents, the City's water demand would grow, but each of the proposed housing sites have existing or planned water, sewer, and dry utilities infrastructure available and accessible. Therefore, impacts on water supply would be less than significant.*

The estimated net increase in wastewater generation and stormwater from new residents and development would be covered under the General Plan EIR as the EIR analyzes a greater buildout than the Housing Element Update, and *therefore the wastewater and stormwater impacts would be less than significant.* Although the Potrero Hills Landfill and the Recology Hay Landfill have a ceased operation date of 2048 and 2077, respectively, they have remaining capacity that would serve the proposed Housing Element (CalRecycle 2024b, 2024c). *Therefore, impacts on solid waste would be less than significant.* The Addendum also identified that *any development under the proposed Housing Element would comply with existing State and local energy-efficiency standards and guidelines that conserve energy*, and would be less-than-significant impacts since development would be constructed pursuant to the *City's Municipal Code Chapter 12.50, Green Building Code*, and California Green Building Standards Code (CCR Title 24, Part 11),

commonly referred to as the CALGreen Code, resulting in an impact finding of less than significant. (2017 General Plan EIR section 4.15; 2024 Addendum pp. 64-65; 2021 IS/MND section 4.19)

Discussion

As previously indicated in Section 3.14, *Population and Housing*, and initially in Section 2.3 of this document, development of 130 residential units on the proposed Project site and associated approximately 377 residents were contemplated in future development scenarios in the General Plan EIR, its Housing Element Addendum, as well as for the Zoning Update IS/MND. Thus, the potential effects of the proposed Project were already factored into the impact analysis in those prior CEQA documents. Conservatively, the following discusses the Project's specific potential effects regarding utilities and service systems.

a) **Less than Significant.**

Water. Water service in the City of Vallejo is provided by the City of Vallejo Water Department. The Project would include the installation of new 8-inch domestic water lines within the internal roadways to provide domestic water supply throughout the Project site. In addition, the Project would include 16 new fire hydrant assemblies, building connections, and 8-inch fire water lines to provide water for fire protection. These new water lines would include installation of three new laterals, one to an existing 8-inch water pipeline along Hargus Avenue and two to an existing 18-inch water pipeline along Rollingwood Drive. The Project would connect directly to existing mains, which have sufficient capacity to accommodate the Project. The new water lines would be constructed in conformance with City standards, and their construction would not cause significant environmental effects.

The City of Vallejo updated its Urban Water Management Plan (UWMP) in 2020, and it was adopted in 2021. According to the UWMP, the average water use for the City's service area is projected to be 30,331-acre feet per year (AFY) in 2035 and 31,892 AFY in 2045 (City of Vallejo, 2021). As previously described, development of the proposed Project was included in the analyses in the prior CEQA documents, which entailed citywide development and population growth analyzed in the General Plan EIR, in addition to the new housing units and associated population estimated on specific sites identified in the Housing Element: a total 124,449 residents and 46,774 housing units by 2031. (2024 Addendum p. 63) Therefore, the proposed Project's would not require any new infrastructure, aside from the Project-specific tie-ins and water pipelines to serve the Project, and all proposed water infrastructure would be limited to the Project site. Therefore, the impact of the Project on water infrastructure would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Wastewater. The VFWD provides wastewater (sewer) collection and treatment services for the City of Vallejo. Sewer flows from the Project would be discharged into the

existing sanitary sewer main running west along Hargus Avenue. Currently, the existing sanitary sewer main along Hargus Avenue is only 6-inches in diameter and requires replacement. Approximately 850 feet of the sanitary sewer main would be replaced and upsized to an 8-inch diameter main to comply with VFWD standards. Additionally, segments of the downstream sewer mains are non-standard also requiring replacement. Approximately 200 feet of 8-inch sewer main will be replaced and another 200 feet of new 8-inch main and maintenance hole(s) will be added and extended to Benicia Way in a new 20-foot easement. Another 530 feet of the 6-inch sewer main in Benicia Road will be replaced and upsized to 8-inch. New and rehabilitated maintenance holes will be required to comply with VFWD standards. The Project would connect to the upsized sewer main in Hargus Avenue and include installation of new 8-inch sewer mains within the internal roadways to serve the proposed development. The proposed upsizing of the existing 6-inch sewer mains would provide adequate sewer capacity and preclude the need for a lift station from the proposed development.

As discussed above, development of the proposed Project was included in the analyses in the prior CEQA documents, so the proposed Project's sanitary sewer infrastructure - the construction of which could result in environmental impacts - would not exceed that previously analyzed. Therefore, impacts associated with the Project on wastewater infrastructure would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Stormwater. The Project site is 17.76 acres and currently consists of four unmaintained baseball fields (with dugouts and bleacher structures), a snack shack, and parking along Rollingwood Drive. The Project site's existing watershed conveys runoff to existing storm drain facilities in the northwest corner of the site and to offsite facilities towards the southwest adjacent to Benicia Road. This stormwater is conveyed to the Napa River and Lake Dalwigk respectively. The existing Project site is mostly pervious with some impervious area comprised of roof area and pavement. The total pre-project impervious surface area on the Project site is 0.7-acre (CBG, 2023).

Upon construction of the Project, approximately 9.44 acres (53 percent) of the Project site would be covered by impervious surfaces and approximately 8.09 acres (26 percent) would be covered by pervious surfaces, consisting of stormwater basins, landscaped areas with lawns, shrubs, and trees. The Project would an approximately 5.5-acre-feet detention basin to safety store 10-day, 100-year storm event. The Project would also include an approximately 16,737square-foot bioretention basin and a smaller bioretention basin, that would be used for stormwater treatment. The Project would include the construction of storm drains of varying sizes with associated maintenance holes throughout the Project site that would connect to the detention basin and then flow into the larger bioretention basin and eventually into an existing 12-inch stormwater drain at the back of homes along Dryden Drive.

The proposed stormwater infrastructure would be limited to the Project site and would be constructed in accordance with all City regulations and requirements and be designed

consistent with the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) Program requirements for low impact development (LID). Further, as discussed in the criteria above, since development of the Project site with 130 residential units was factored in the analyses in the prior CEQA documents, the conversion of impervious acreage and stormwater infrastructure, the construction of which could result in environmental impacts - would not exceed the stormwater impacts analyzed in the prior CEQA documents. Therefore, impacts associated with the construction of the proposed stormwater infrastructure would be less than significant, and therefore the Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Electricity and Natural Gas. Electricity service is provided to the Project site by Pacific Gas & Electric (PG&E). The Project would include connections to the existing electric lines that run adjacent to the Project site within Rollingwood Drive. The Project would not require any new infrastructure, aside from Project-specific tie-ins and lines to serve the Project site. The Project will have no natural gas hookups. Again, given that the proposed Project development on the Project site was already part of the analyses conducted in the prior CEQA documents, the Project's electricity infrastructure impact would be less than significant. Therefore, the Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- b) **Less than Significant.** The City of Vallejo Water Department provides water services to two geographically district service areas: the City of Vallejo jurisdictional limits and adjacent unincorporated areas (Vallejo City Service Area), and an area in the unincorporated western part of Solano County and southern Napa County (Vallejo Lakes Service Area). The City has numerous water supply sources that provide significant annual volumes of water including: the Sacramento River watershed; the Solano Project from Putah Creek Watershed which includes Lake Berryessa; the Wild Horse Creek watershed through Lake Madigan, Lake Frey, and the Green Valley Diversion; and the Upper Suisun Creek watershed through Lake Curry. The City currently produces just over 20,000 acre-feet per year (AFY) of treated water annually to meet service area demand, with additional raw water services that can demand nearly 6,000 AFY (though the actual need varies each year).

According to the UWMP, the average water use for the City's service area is projected to be 28,111 AFY in 2025, 30,331 AFY in 2035 and 31,892 AFY in 2045. The UWMP projects that the City would be able to meet current and future water demand during normal and single dry years through 2045, though dry conditions will require the City to closely monitor and manage supplies during wet conditions to maximize carryover opportunities, as well as optimally manage supplies during conditions when various supplies are constrained. During multiple dry years, supplies are nearly exhausted beginning in year 3 of a drought around 2035. Any actual shortage condition would trigger the City's Water Shortage Contingency Plan to appropriately modify supply and demand conditions (City of Vallejo, 2021).

The City's projected water demand accounts for the projected growth within the region as identified by the City's General Plan (and Housing Element Update), which includes the Project – specifically development of the Project site with 130 residential units.

Therefore, the City would not require new or expanded water entitlements to serve the Project, and the impact on water supply would be less than significant. The Project would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- c) **Less than Significant.** As described in criterion “a” above, the Project would connect to the upsized 8-inch sewer main along Hargus Avenue, involving the installation of new 8-inch sewer mains within the internal roadways to serve the proposed development. Sanitary sewer flow from the Project site would flow through the Hargus Avenue Sewer Alignment and ultimately into the Ryder Street Treatment Plant. The sewer evaluation prepared for the Project calculated peak flows from the Project using the VFWD's Engineering Design Standards and added to the existing conditions. The hydraulic model evaluation determined that no sanitary sewer overflows were identified for existing conditions. Furthermore, the hydraulic model evaluation determined that upsizing the existing 6-inch sewer along Hargus Avenue to be 8-inch would provide adequate sewer capacity and preclude the need for a lift station from the Rollingwood Development (West Yost, 2022). Also, as discussed above, development of the proposed Project was included in the analyses in the prior CEQA documents, so the proposed Project's wastewater collection and treatment services demand would not exceed the wastewater service or infrastructure need previously analyzed. Therefore, the wastewater treatment provider would have adequate capacity to serve the Project's projected demand in addition to the existing conditions, and this impact would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- d) **Less than Significant.** Solid waste, recycling, and yard waste collection services in the City of Vallejo, including the Project site, are provided by Recology Vallejo. Solid waste collected by Recology is transported to the Devlin Road Recycling & Transfer Facility, a regional facility operated by the Northern Recycling Operations & Waste Services. Green waste and recyclables are sorted and sent to various facilities and solid waste that cannot be recycled is sent to the Potrero Hill Landfill, located at 3675 Potrero Hills Lane in Suisun City, Solano County. The landfill has a maximum permitted capacity of 83,100,000 cubic yards and a remaining capacity of 13,872,000 cubic yards as of January 2006. The landfill accepts a maximum of 4,330 tons per day and has an expected closure date of February 2048 (CalRecycle, 2025).

Based on the City's average household size of 2.9 persons per household, the Project would increase the local population by approximately 377 residents. In 2018, the average period generated 4.9 pounds of solid waste per day (US EPA, 2024). Based on these rates, the Project would generate approximately 1,848 pounds of solid waste per day, or 0.9 tons per day. This increase in solid waste would account for approximately 0.02 percent of Potrero Hill Landfill's maximum allowable capacity per day. This minimal

- increase to the solid waste disposal from the proposed Project was previously considered in the prior CEQA documents, and the Potrero Hill Landfill has adequate capacity to serve the Project, in addition to the General Plan and Housing Element growth. As such, the Project would be served by a landfill with sufficient capacity to accommodate the Project's waste disposal needs, and impacts associated with the disposition of solid waste would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.
- e) **Less than Significant.** The Project would be required to comply with all federal, State, and local solid waste statutes and/or regulations related to solid waste. Adhering to local regulations makes the Project consistent with State requirements. Therefore, the Project would result in a less-than-significant impact related to solid waste regulations and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

Summary

Based on the above utilities and service systems analysis, the proposed Project would not result in new or substantially more severe significant utilities and service systems impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

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3.20 Wildfire

<i>Issues (and Supporting Information Sources):</i>	<i>Equal or Less Severity of Impact Previously Identified in Previous EIR</i>	<i>Substantial Increase in Severity of Previously Identified Significant Impact in Previous EIR</i>	<i>New Significant Impact</i>
WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:			
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☒	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☒	☐	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☒	☐	☐

Prior CEQA Documents' Findings

The General Plan EIR discussed wildfire hazards and mapped wildfire risk areas within the analysis of hazards and hazardous materials, conducted prior to CEQA adding wildfire as a environmental factor in Appendix G to the CEQA Guidelines. Given the proposed location of development under the General Plan in areas of low wildland fire risk and compliance with applicable federal, State, and local laws and regulations would result in a less-than-significant wildland fire impact. (2017 General Plan pp. 4.7-29 and 4.7-30; 2021 IS/MND section 4.20) The Addendum to the General Plan EIR prepared for the Housing Element Update also determined that development would (verbatim text shown italicized) *not exacerbate fire risks or expose residents to landslide, slope instability, or drainage impacts. Furthermore, neither the proposed project nor the General Plan propose any action that would impair an adopted emergency response plan. Impacts to wildfire hazards would be less than significant.* (2024 Addendum p.65)

Discussion

- a) **Less than Significant.** According to the California Department of Forestry and Fire Protection (CAL FIRE) that establishes Fire Hazard Severity Zones (FHSZ), the Project site, as well as areas adjacent to the Project site, are located within a Local Responsibility Area (LRA) that is not designated as a Very High Fire Hazard Severity Zone (VHFHSZ). The Project site is not located in an area designated as a wildland-urban interface The Project would be consistent with the Solano County Emergency Operations Plan (EOP), the Solano County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), and the Solano County Community Wildfire Protection Plan (CWPP). These plans assess the

hazard risks and identify mitigation and coordination measures, but do not specify evacuation routes within the City or the County. Additionally, emergency response times are not anticipated to change during construction of the proposed Project. (MTC and ABAG, 2025) Therefore, the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

The Project would not alter or block adjacent roadways, and implementation of the Project would not be expected to impair the function of nearby emergency evacuation routes. Development of the Project would result in the construction of new streets internal to the Project site, which would not alter vehicle circulation routes and patterns; these streets would improve circulation on the Project site and would not impede public access or travel upon public rights-of-way. Nor would it impair emergency vehicle access to or circulation within the Project site. As discussed in Section 3.17, *Transportation*, of this Checklist, criterion “a”, the Project, the proposed access for emergency vehicles considered the number of public and emergency access points (the proposed Project includes two main driveways), the width of those access points, and the width of the internal roadways for emergency vehicles to maneuver. The draft VTM exhibits include preliminary Fire Truck Turning Movements (Sht.C-8 in the applicant’s Project submittal to the City), which delineates minimum turning radii for a range of turn angles and which the proposed internal road layout considers. which will undergo plan review and approval by the Vallejo Fire District prior to City approval of final maps and improvement plans for this and any development project within Vallejo. This review will ensure that internal roadways and ingress/egress for the Project site would be required to meet State and local standards regarding turning radius, road width, and emergency vehicle access. Therefore, potential impacts to an adopted emergency response plan or emergency evacuation plan would be less than significant and would not result in any new significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- b) **Less than Significant.** The Project site is located in a developed suburban area that is not subject to high wildfire risk. Although the Project site is currently occupied by four unmaintained baseball fields which include scattered trees and non-native grassland, the Project site would be redeveloped to be consistent with the surrounding residential uses and the allowable zoning for the Project site. Additionally, the Project would not exacerbate wildfire risks due to slope, prevailing winds, and other factors due to the Project site’s urbanized location away from natural areas susceptible to wildfire.

Furthermore, the Project would be subject to the design standards and guidelines outlined in the City of Vallejo Municipal Code and would be subject to Development Review and Design Review to ensure the proposed structures conform with all the applicable regulations. Therefore, the Project would not exacerbate wildfire risks that could expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire and this impact would be less than significant and would not result in any new

significant or substantially greater impacts as the impacts identified in the prior CEQA documents.

- c) **No Impact.** As mentioned above, the Project site is not located within an area of moderate, high, or very high fire hazard severity for the LRA nor does it contain areas of moderate, high, or very high Fire Hazard Severity for the SLA (CAL FIRE, 2023, 2025). In addition, the Project site is not located within the boundaries of an area designated as a Wildland-Urban Interface of a fire threatened community (MTC and ABAG, 2025). As such, the Project would not require the installation or maintenance of associated wildfire suppression or related infrastructure. Accordingly, there would be no impact from the installation of such features.
- d) **Less than Significant.** Post-fire impacts such as slope instability and downstream flooding are typically associated with steep wildland areas that burn and then erode or slide onto downslope area. The Project site is relatively flat at an elevation of 140-175 feet above sea level and slopes up sharply to the properties to the south and east. As such, the Project site does not contain or propose the steep slopes associated with these post-fire risks. As discussed in Section 3.10, *Hydrology and Water Quality*, the Project would implement a Stormwater Pollution and Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) and erosion control measures to be used during construction to manage runoff flows. Additionally, the Project would be required to implement Low Impact Development (LID) techniques as required by the Municipal Regional Stormwater NPDES Permit (MRP) which would continue to prevent runoff. Furthermore, the Project site is not located within a flood zone and is in an area identified as having few landslides (MTC and ABAG, 2025). Therefore, the Project would not exacerbate wildfire risks or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. This impact would be less than significant.

Summary

Based on the above wildfire analysis, the proposed Project would not result in new or substantially more severe significant wildfire impacts than identified in the prior CEQA documents. No mitigation measures are required. No further analysis is warranted under the conditions described in CEQA Guidelines Section 15162 (detailed in Section 1.5 of this document).

References

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A. Air Quality and Greenhouse Gas Emissions and Health Risk Assessment

201 Rollingwood Drive Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	201 Rollingwood Drive
Construction Start Date	5/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	34.8
Location	201 Rollingwood Dr, Vallejo, CA 94591, USA
County	Solano-San Francisco
City	Vallejo
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	872
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	130	Dwelling Unit	12.0	424,038	100,070	—	367	—

Other Asphalt Surfaces	227	1000sqft	5.21	0.00	0.00	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.08	3.31	34.5	31.3	0.08	1.33	6.43	7.75	1.23	2.98	4.21	—	9,770	9,770	0.39	0.73	9.73	10,006
Mit.	0.90	0.89	7.90	36.1	0.08	0.18	6.43	6.61	0.18	2.98	3.16	—	9,770	9,770	0.39	0.73	9.73	10,006
% Reduced	78%	73%	77%	-15%	—	86%	—	15%	85%	—	25%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	302	302	10.5	14.7	0.03	0.38	0.48	0.87	0.35	0.12	0.47	—	3,143	3,143	0.12	0.09	0.06	3,172
Mit.	302	302	3.46	16.6	0.03	0.08	0.48	0.56	0.08	0.12	0.20	—	3,143	3,143	0.12	0.09	0.06	3,172
% Reduced	< 0.5%	< 0.5%	67%	-13%	—	79%	—	35%	78%	—	59%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.3	17.2	8.25	9.70	0.02	0.32	0.61	0.93	0.29	0.21	0.51	—	2,215	2,215	0.09	0.06	0.57	2,237
Mit.	16.8	16.8	2.15	11.0	0.02	0.05	0.61	0.66	0.05	0.21	0.26	—	2,215	2,215	0.09	0.06	0.57	2,237

% Reduced	3%	2%	74%	-13%	—	85%	—	29%	84%	—	48%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.15	3.13	1.51	1.77	< 0.005	0.06	0.11	0.17	0.05	0.04	0.09	—	367	367	0.01	0.01	0.10	370
Mit.	3.07	3.07	0.39	2.00	< 0.005	0.01	0.11	0.12	0.01	0.04	0.05	—	367	367	0.01	0.01	0.10	370
% Reduced	3%	2%	74%	-13%	—	85%	—	29%	84%	—	48%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.08	3.31	34.5	31.3	0.08	1.33	6.43	7.75	1.23	2.98	4.21	—	9,770	9,770	0.39	0.73	9.73	10,006
2027	1.62	1.47	9.93	14.8	0.03	0.34	0.48	0.83	0.31	0.12	0.43	—	3,158	3,158	0.12	0.09	2.22	3,190
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.48	1.24	10.5	14.7	0.03	0.38	0.48	0.87	0.35	0.12	0.47	—	3,143	3,143	0.12	0.09	0.06	3,172
2027	302	302	9.99	14.6	0.03	0.34	0.48	0.83	0.31	0.12	0.43	—	3,128	3,128	0.12	0.09	0.06	3,158
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.12	0.93	8.25	9.70	0.02	0.32	0.61	0.93	0.29	0.21	0.51	—	2,215	2,215	0.09	0.06	0.57	2,237
2027	17.3	17.2	4.90	7.17	0.01	0.17	0.22	0.39	0.16	0.05	0.21	—	1,506	1,506	0.06	0.04	0.45	1,520
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.20	0.17	1.51	1.77	< 0.005	0.06	0.11	0.17	0.05	0.04	0.09	—	367	367	0.01	0.01	0.10	370
2027	3.15	3.13	0.89	1.31	< 0.005	0.03	0.04	0.07	0.03	0.01	0.04	—	249	249	0.01	0.01	0.07	252

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.84	0.71	7.90	36.1	0.08	0.18	6.43	6.61	0.18	2.98	3.16	—	9,770	9,770	0.39	0.73	9.73	10,006
2027	0.90	0.89	3.36	16.6	0.03	0.08	0.48	0.56	0.08	0.12	0.19	—	3,158	3,158	0.12	0.09	2.22	3,190
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.55	0.50	3.46	16.6	0.03	0.08	0.48	0.56	0.08	0.12	0.20	—	3,143	3,143	0.12	0.09	0.06	3,172
2027	302	302	3.42	16.5	0.03	0.08	0.48	0.56	0.08	0.12	0.19	—	3,128	3,128	0.12	0.09	0.06	3,158
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.31	0.28	2.15	11.0	0.02	0.05	0.61	0.66	0.05	0.21	0.26	—	2,215	2,215	0.09	0.06	0.57	2,237
2027	16.8	16.8	1.67	8.04	0.01	0.04	0.22	0.26	0.04	0.05	0.09	—	1,506	1,506	0.06	0.04	0.45	1,520
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.06	0.05	0.39	2.00	< 0.005	0.01	0.11	0.12	0.01	0.04	0.05	—	367	367	0.01	0.01	0.10	370
2027	3.07	3.07	0.30	1.47	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	249	249	0.01	0.01	0.07	252

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.1	16.6	5.74	47.1	0.10	0.13	8.12	8.24	0.12	2.06	2.17	56.5	10,493	10,550	6.18	0.45	34.8	10,872
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	16.1	15.7	6.35	38.7	0.09	0.12	8.12	8.24	0.11	2.06	2.17	56.5	9,928	9,985	6.24	0.49	3.86	10,290
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.3	15.8	5.52	38.9	0.09	0.11	7.76	7.86	0.10	1.96	2.06	56.5	9,691	9,748	6.19	0.46	16.4	10,056
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.97	2.89	1.01	7.10	0.02	0.02	1.42	1.44	0.02	0.36	0.38	9.35	1,605	1,614	1.03	0.08	2.72	1,665

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.45	5.06	4.05	36.8	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	9,388	9,388	0.39	0.41	31.7	9,552
Area	11.4	11.4	0.07	7.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.7	19.7	< 0.005	< 0.005	—	19.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	622	622	0.10	0.01	—	628
Water	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Waste	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Off-Road	0.19	0.16	1.61	2.94	< 0.005	0.06	—	0.06	0.05	—	0.05	—	443	443	0.02	< 0.005	—	444
Total	17.1	16.6	5.74	47.1	0.10	0.13	8.12	8.24	0.12	2.06	2.17	56.5	10,493	10,550	6.18	0.45	34.8	10,872
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.21	4.79	4.74	35.7	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	8,843	8,843	0.45	0.45	0.82	8,989
Area	10.7	10.7	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	622	622	0.10	0.01	—	628
Water	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0

Waste	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Off-Road	0.19	0.16	1.61	2.94	< 0.005	0.06	—	0.06	0.05	—	0.05	—	443	443	0.02	< 0.005	—	444
Total	16.1	15.7	6.35	38.7	0.09	0.12	8.12	8.24	0.11	2.06	2.17	56.5	9,928	9,985	6.24	0.49	3.86	10,290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.04	4.65	4.33	33.1	0.09	0.06	7.76	7.82	0.06	1.96	2.03	—	8,724	8,724	0.41	0.42	13.4	8,873
Area	11.1	11.1	0.03	3.64	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	9.72	9.72	< 0.005	< 0.005	—	9.76
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	622	622	0.10	0.01	—	628
Water	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Waste	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Off-Road	0.14	0.12	1.15	2.10	< 0.005	0.04	—	0.04	0.04	—	0.04	—	315	315	0.01	< 0.005	—	316
Total	16.3	15.8	5.52	38.9	0.09	0.11	7.76	7.86	0.10	1.96	2.06	56.5	9,691	9,748	6.19	0.46	16.4	10,056
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.92	0.85	0.79	6.05	0.02	0.01	1.42	1.43	0.01	0.36	0.37	—	1,444	1,444	0.07	0.07	2.22	1,469
Area	2.02	2.02	0.01	0.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.61	1.61	< 0.005	< 0.005	—	1.62
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	103	103	0.02	< 0.005	—	104
Water	—	—	—	—	—	—	—	—	—	—	—	1.46	3.45	4.91	0.15	< 0.005	—	9.77
Waste	—	—	—	—	—	—	—	—	—	—	—	7.88	0.00	7.88	0.79	0.00	—	27.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50
Off-Road	0.03	0.02	0.21	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	52.2	52.2	< 0.005	< 0.005	—	52.4
Total	2.97	2.89	1.01	7.10	0.02	0.02	1.42	1.44	0.02	0.36	0.38	9.35	1,605	1,614	1.03	0.08	2.72	1,665

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.45	5.06	4.05	36.8	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	9,388	9,388	0.39	0.41	31.7	9,552
Area	11.4	11.4	0.07	7.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.7	19.7	< 0.005	< 0.005	—	19.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	622	622	0.10	0.01	—	628
Water	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Waste	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Off-Road	0.19	0.16	1.61	2.94	< 0.005	0.06	—	0.06	0.05	—	0.05	—	443	443	0.02	< 0.005	—	444
Total	17.1	16.6	5.74	47.1	0.10	0.13	8.12	8.24	0.12	2.06	2.17	56.5	10,493	10,550	6.18	0.45	34.8	10,872
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.21	4.79	4.74	35.7	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	8,843	8,843	0.45	0.45	0.82	8,989
Area	10.7	10.7	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	622	622	0.10	0.01	—	628
Water	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Waste	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Off-Road	0.19	0.16	1.61	2.94	< 0.005	0.06	—	0.06	0.05	—	0.05	—	443	443	0.02	< 0.005	—	444
Total	16.1	15.7	6.35	38.7	0.09	0.12	8.12	8.24	0.11	2.06	2.17	56.5	9,928	9,985	6.24	0.49	3.86	10,290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.04	4.65	4.33	33.1	0.09	0.06	7.76	7.82	0.06	1.96	2.03	—	8,724	8,724	0.41	0.42	13.4	8,873
Area	11.1	11.1	0.03	3.64	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	9.72	9.72	< 0.005	< 0.005	—	9.76
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	622	622	0.10	0.01	—	628
Water	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0

Waste	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Off-Road	0.14	0.12	1.15	2.10	< 0.005	0.04	—	0.04	0.04	—	0.04	—	315	315	0.01	< 0.005	—	316
Total	16.3	15.8	5.52	38.9	0.09	0.11	7.76	7.86	0.10	1.96	2.06	56.5	9,691	9,748	6.19	0.46	16.4	10,056
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.92	0.85	0.79	6.05	0.02	0.01	1.42	1.43	0.01	0.36	0.37	—	1,444	1,444	0.07	0.07	2.22	1,469
Area	2.02	2.02	0.01	0.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.61	1.61	< 0.005	< 0.005	—	1.62
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	103	103	0.02	< 0.005	—	104
Water	—	—	—	—	—	—	—	—	—	—	—	1.46	3.45	4.91	0.15	< 0.005	—	9.77
Waste	—	—	—	—	—	—	—	—	—	—	—	7.88	0.00	7.88	0.79	0.00	—	27.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50
Off-Road	0.03	0.02	0.21	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	52.2	52.2	< 0.005	< 0.005	—	52.4
Total	2.97	2.89	1.01	7.10	0.02	0.02	1.42	1.44	0.02	0.36	0.38	9.35	1,605	1,614	1.03	0.08	2.72	1,665

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.72	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.71	0.71	—	0.11	0.11	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.13	1.04	< 0.005	0.05	—	0.05	0.04	—	0.04	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.57	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	132	132	< 0.005	< 0.005	0.51	134
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	0.01	0.67	0.23	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	546	546	0.02	0.09	1.16	573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.75	6.75	< 0.005	< 0.005	0.01	6.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.9	29.9	< 0.005	< 0.005	0.03	31.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.12	1.12	< 0.005	< 0.005	< 0.005	1.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.95	4.95	< 0.005	< 0.005	< 0.005	5.19

3.2. Demolition (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.36	4.51	18.2	0.03	0.06	—	0.06	0.06	—	0.06	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.71	0.71	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm ent	0.02	0.02	0.25	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	188	188	0.01	< 0.005	—	188
Demoliti on	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	< 0.005	< 0.005	0.05	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demoliti on	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.57	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	132	132	< 0.005	< 0.005	0.51	134
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	0.01	0.67	0.23	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	546	546	0.02	0.09	1.16	573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.75	6.75	< 0.005	< 0.005	0.01	6.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.9	29.9	< 0.005	< 0.005	0.03	31.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.12	1.12	< 0.005	< 0.005	< 0.005	1.13

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.95	4.95	< 0.005	< 0.005	< 0.005	5.19

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	5.12	5.12	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.80	0.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.66	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	154	154	< 0.005	0.01	0.59	156
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.27	0.10	5.27	1.86	0.03	0.08	1.16	1.24	0.08	0.32	0.40	—	4,318	4,318	0.17	0.68	9.14	4,533
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.94	3.94	< 0.005	< 0.005	0.01	4.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	118	118	< 0.005	0.02	0.11	124
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.65	0.65	< 0.005	< 0.005	< 0.005	0.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.6	19.6	< 0.005	< 0.005	0.02	20.5

3.4. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	5.12	5.12	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.66	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	154	154	< 0.005	0.01	0.59	156
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.27	0.10	5.27	1.86	0.03	0.08	1.16	1.24	0.08	0.32	0.40	—	4,318	4,318	0.17	0.68	9.14	4,533
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.94	3.94	< 0.005	< 0.005	0.01	4.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	118	118	< 0.005	0.02	0.11	124
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.65	0.65	< 0.005	< 0.005	< 0.005	0.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.6	19.6	< 0.005	< 0.005	0.02	20.5

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.24	2.27	0.01	0.09	—	0.09	0.08	—	0.08	—	542	542	0.02	< 0.005	—	544
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.41	0.41	< 0.005	0.02	—	0.02	0.02	—	0.02	—	89.8	89.8	< 0.005	< 0.005	—	90.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.75	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	176	176	< 0.005	0.01	0.68	178
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.24	2.24	< 0.005	< 0.005	< 0.005	2.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.36	2.91	0.01	0.01	—	0.01	0.01	—	0.01	—	542	542	0.02	< 0.005	—	544
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.53	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	89.8	89.8	< 0.005	< 0.005	—	90.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.75	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	176	176	< 0.005	0.01	0.68	178
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.24	2.24	< 0.005	< 0.005	< 0.005	2.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.47	0.40	3.66	4.81	0.01	0.14	—	0.14	0.13	—	0.13	—	889	889	0.04	0.01	—	893
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.09	0.07	0.67	0.88	< 0.005	0.03	—	0.03	0.02	—	0.02	—	147	147	0.01	< 0.005	—	148
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.18	0.12	1.76	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	411	411	0.01	0.02	1.58	417
Vendor	0.03	0.01	0.46	0.18	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	365	365	0.01	0.05	0.88	382
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.15	1.58	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	380	380	0.01	0.02	0.04	385

Vendor	0.03	0.01	0.49	0.19	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	365	365	0.01	0.05	0.02	382
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.57	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	143	143	< 0.005	0.01	0.25	145
Vendor	0.01	< 0.005	0.18	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	136	136	< 0.005	0.02	0.14	142
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	24.0
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.4	22.4	< 0.005	< 0.005	0.02	23.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.13	0.12	1.05	5.50	0.01	0.03	—	0.03	0.03	—	0.03	—	889	889	0.04	0.01	—	893
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.02	0.02	0.19	1.00	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	147	147	0.01	< 0.005	—	148
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.18	0.12	1.76	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	411	411	0.01	0.02	1.58	417
Vendor	0.03	0.01	0.46	0.18	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	365	365	0.01	0.05	0.88	382
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.15	1.58	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	380	380	0.01	0.02	0.04	385
Vendor	0.03	0.01	0.49	0.19	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	365	365	0.01	0.05	0.02	382
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.57	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	143	143	< 0.005	0.01	0.25	145
Vendor	0.01	< 0.005	0.18	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	136	136	< 0.005	0.02	0.14	142

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	24.0
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.4	22.4	< 0.005	< 0.005	0.02	23.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.46	4.21	5.80	0.01	0.15	—	0.15	0.14	—	0.14	—	1,075	1,075	0.04	0.01	—	1,079

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.77	1.06	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.10	1.65	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	403	403	0.01	0.02	1.45	409
Vendor	0.02	0.01	0.44	0.17	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	358	358	0.01	0.05	0.78	375
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.13	1.48	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	373	373	0.01	0.02	0.04	378
Vendor	0.02	0.01	0.47	0.18	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	358	358	0.01	0.05	0.02	375
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.64	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	169	169	< 0.005	0.01	0.28	172
Vendor	0.01	0.01	0.21	0.08	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	161	161	0.01	0.02	0.15	168
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.0	28.0	< 0.005	< 0.005	0.05	28.4
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	26.6	26.6	< 0.005	< 0.005	0.02	27.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.15	1.26	6.65	0.01	0.03	—	0.03	0.03	—	0.03	—	1,075	1,075	0.04	0.01	—	1,079
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.23	1.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	178	178	0.01	< 0.005	—	179

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.10	1.65	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	403	403	0.01	0.02	1.45	409
Vendor	0.02	0.01	0.44	0.17	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	358	358	0.01	0.05	0.78	375
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.13	1.48	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	373	373	0.01	0.02	0.04	378
Vendor	0.02	0.01	0.47	0.18	< 0.005	0.01	0.10	0.10	0.01	0.03	0.03	—	358	358	0.01	0.05	0.02	375
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.64	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	169	169	< 0.005	0.01	0.28	172
Vendor	0.01	0.01	0.21	0.08	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	161	161	0.01	0.02	0.15	168
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.0	28.0	< 0.005	< 0.005	0.05	28.4
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	26.6	26.6	< 0.005	< 0.005	0.02	27.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.03	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	129	129	< 0.005	< 0.005	0.46	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.47	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.63	6.63	< 0.005	< 0.005	0.01	6.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.03	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	129	129	< 0.005	< 0.005	0.46	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.47	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.63	6.63	< 0.005	< 0.005	0.01	6.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	302	302	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	16.5	16.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	3.02	3.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.30	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	74.5	74.5	< 0.005	< 0.005	0.01	75.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.13	4.13	< 0.005	< 0.005	0.01	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	302	302	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	16.5	16.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	3.02	3.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.30	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	74.5	74.5	< 0.005	< 0.005	0.01	75.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.13	4.13	< 0.005	< 0.005	0.01	4.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.45	5.06	4.05	36.8	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	9,388	9,388	0.39	0.41	31.7	9,552

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	5.45	5.06	4.05	36.8	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	9,388	9,388	0.39	0.41	31.7	9,552
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.21	4.79	4.74	35.7	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	8,843	8,843	0.45	0.45	0.82	8,989
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	5.21	4.79	4.74	35.7	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	8,843	8,843	0.45	0.45	0.82	8,989
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.92	0.85	0.79	6.05	0.02	0.01	1.42	1.43	0.01	0.36	0.37	—	1,444	1,444	0.07	0.07	2.22	1,469
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.92	0.85	0.79	6.05	0.02	0.01	1.42	1.43	0.01	0.36	0.37	—	1,444	1,444	0.07	0.07	2.22	1,469

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.45	5.06	4.05	36.8	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	9,388	9,388	0.39	0.41	31.7	9,552

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	5.45	5.06	4.05	36.8	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	9,388	9,388	0.39	0.41	31.7	9,552
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.21	4.79	4.74	35.7	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	8,843	8,843	0.45	0.45	0.82	8,989
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	5.21	4.79	4.74	35.7	0.09	0.07	8.12	8.18	0.06	2.06	2.12	—	8,843	8,843	0.45	0.45	0.82	8,989
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.92	0.85	0.79	6.05	0.02	0.01	1.42	1.43	0.01	0.36	0.37	—	1,444	1,444	0.07	0.07	2.22	1,469
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.92	0.85	0.79	6.05	0.02	0.01	1.42	1.43	0.01	0.36	0.37	—	1,444	1,444	0.07	0.07	2.22	1,469

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	622	622	0.10	0.01	—	628

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	622	622	0.10	0.01	—	628
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	622	622	0.10	0.01	—	628
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	622	622	0.10	0.01	—	628
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	103	103	0.02	< 0.005	—	104
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	103	103	0.02	< 0.005	—	104

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	622	622	0.10	0.01	—	628

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	622	622	0.10	0.01	—	628
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	622	622	0.10	0.01	—	628
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	622	622	0.10	0.01	—	628
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	103	103	0.02	< 0.005	—	104
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	103	103	0.02	< 0.005	—	104

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Consumer Product	9.09	9.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.65	1.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.68	0.65	0.07	7.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Total	11.4	11.4	0.07	7.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.7	19.7	< 0.005	< 0.005	—	19.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	9.09	9.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.65	1.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	10.7	10.7	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	1.66	1.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipm	0.06	0.06	0.01	0.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.61	1.61	< 0.005	< 0.005	—	1.62
Total	2.02	2.02	0.01	0.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.61	1.61	< 0.005	< 0.005	—	1.62

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	9.09	9.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.65	1.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.68	0.65	0.07	7.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.7	19.7	< 0.005	< 0.005	—	19.8
Total	11.4	11.4	0.07	7.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.7	19.7	< 0.005	< 0.005	—	19.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	9.09	9.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	1.65	1.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	10.7	10.7	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	1.66	1.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.06	0.01	0.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.61	1.61	< 0.005	< 0.005	—	1.62
Total	2.02	2.02	0.01	0.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.61	1.61	< 0.005	< 0.005	—	1.62

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.46	3.45	4.91	0.15	< 0.005	—	9.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.46	3.45	4.91	0.15	< 0.005	—	9.77

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.85	20.8	29.7	0.91	0.02	—	59.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.46	3.45	4.91	0.15	< 0.005	—	9.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.46	3.45	4.91	0.15	< 0.005	—	9.77

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	7.88	0.00	7.88	0.79	0.00	—	27.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.88	0.00	7.88	0.79	0.00	—	27.6

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	7.88	0.00	7.88	0.79	0.00	—	27.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.88	0.00	7.88	0.79	0.00	—	27.6

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.04	3.04
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.50	0.50

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.08	0.07	0.62	1.03	< 0.005	0.03	—	0.03	0.02	—	0.02	—	152	152	0.01	< 0.005	—	153
Tractors/ Loaders/ Backhoe s	0.12	0.10	0.99	1.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	290	290	0.01	< 0.005	—	291
Total	0.19	0.16	1.61	2.94	< 0.005	0.06	—	0.06	0.05	—	0.05	—	443	443	0.02	< 0.005	—	444
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.08	0.07	0.62	1.03	< 0.005	0.03	—	0.03	0.02	—	0.02	—	152	152	0.01	< 0.005	—	153
Tractors/ Loaders/ Backhoe s	0.12	0.10	0.99	1.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	290	290	0.01	< 0.005	—	291
Total	0.19	0.16	1.61	2.94	< 0.005	0.06	—	0.06	0.05	—	0.05	—	443	443	0.02	< 0.005	—	444
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.01	0.01	0.08	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.0	18.0	< 0.005	< 0.005	—	18.0

Tractors/ Loaders/ Backhoe	0.02	0.01	0.13	0.25	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.2	34.2	< 0.005	< 0.005	—	34.4
Total	0.03	0.02	0.21	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	52.2	52.2	< 0.005	< 0.005	—	52.4

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.08	0.07	0.62	1.03	< 0.005	0.03	—	0.03	0.02	—	0.02	—	152	152	0.01	< 0.005	—	153
Tractors/ Loaders/ Backhoe s	0.12	0.10	0.99	1.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	290	290	0.01	< 0.005	—	291
Total	0.19	0.16	1.61	2.94	< 0.005	0.06	—	0.06	0.05	—	0.05	—	443	443	0.02	< 0.005	—	444
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.08	0.07	0.62	1.03	< 0.005	0.03	—	0.03	0.02	—	0.02	—	152	152	0.01	< 0.005	—	153
Tractors/ Loaders/ Backhoe s	0.12	0.10	0.99	1.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	290	290	0.01	< 0.005	—	291
Total	0.19	0.16	1.61	2.94	< 0.005	0.06	—	0.06	0.05	—	0.05	—	443	443	0.02	< 0.005	—	444
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.01	0.01	0.08	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.0	18.0	< 0.005	< 0.005	—	18.0
Tractors/ Loaders/ Backhoe s	0.02	0.01	0.13	0.25	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.2	34.2	< 0.005	< 0.005	—	34.4

Total	0.03	0.02	0.21	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	52.2	52.2	< 0.005	< 0.005	—	52.4
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4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/1/2026	5/23/2026	6.00	20.0	—
Site Preparation	Site Preparation	5/30/2026	6/10/2026	6.00	10.0	—
Grading	Grading	6/14/2026	7/18/2026	6.00	30.0	—
Building Construction	Building Construction	7/27/2026	7/10/2027	6.00	300	—
Paving	Paving	9/21/2027	10/13/2027	6.00	20.0	—
Architectural Coating	Architectural Coating	10/20/2027	11/11/2027	6.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—

Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	7.90	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	62.5	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	46.8	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	13.9	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	9.36	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	—	—	HHDT
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5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	7.90	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	62.5	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	46.8	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	13.9	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT

Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	9.36	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	858,677	286,226	0.00	0.00	13,612

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	13,700	—
Site Preparation	0.00	5,000	15.0	0.00	—
Grading	0.00	0.00	90.0	0.00	—
Paving	0.00	0.00	0.00	0.00	6.64

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
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Water Exposed Area	3	74%	74%
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5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	1.43	0%
Other Asphalt Surfaces	5.21	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMt/Weekday	VMt/Saturday	VMt/Sunday	VMt/Year
Single Family Housing	1,227	1,240	1,112	442,573	11,408	11,528	10,332	4,114,002
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMt/Weekday	VMt/Saturday	VMt/Sunday	VMt/Year
Single Family Housing	1,227	1,240	1,112	442,573	11,408	11,528	10,332	4,114,002
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	104
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	104
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0

Pellet Wood Stoves	0
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5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
858676.95	286,226	0.00	0.00	13,612

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBtu/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBtu/yr)
Single Family Housing	1,112,459	204	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBtu/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBtu/yr)
Single Family Housing	1,112,459	204	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	4,616,411	1,495,604
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	4,616,411	1,495,604
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	88.3	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	88.3	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	2.00	4.00	82.0	0.20
Tractors/Loaders/Backhoes	Diesel	Average	2.00	4.00	84.0	0.37

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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Forklifts	Diesel	Average	2.00	4.00	82.0	0.20
Tractors/Loaders/Backhoes	Diesel	Average	2.00	4.00	84.0	0.37

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.4	annual days of extreme heat
Extreme Precipitation	5.15	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	7.66	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	13.6
AQ-PM	38.5
AQ-DPM	45.6
Drinking Water	24.0
Lead Risk Housing	77.3
Pesticides	0.00
Toxic Releases	66.6
Traffic	15.9
Effect Indicators	—
CleanUp Sites	61.4
Groundwater	16.8
Haz Waste Facilities/Generators	3.64
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	87.1
Cardio-vascular	54.7
Low Birth Weights	89.8
Socioeconomic Factor Indicators	—
Education	45.6
Housing	45.0
Linguistic	26.4
Poverty	47.8
Unemployment	70.0

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	42.92313615
Employed	36.78942641
Median HI	41.24214038
Education	—
Bachelor's or higher	17.50288721
High school enrollment	100
Preschool enrollment	42.38419094
Transportation	—
Auto Access	46.0284871
Active commuting	30.74554087
Social	—
2-parent households	9.662517644
Voting	61.28576928

Neighborhood	—
Alcohol availability	48.73604517
Park access	23.93173361
Retail density	47.60682664
Supermarket access	31.52829462
Tree canopy	71.55139228
Housing	—
Homeownership	67.77877582
Housing habitability	92.46759913
Low-inc homeowner severe housing cost burden	52.0082125
Low-inc renter severe housing cost burden	98.02386757
Uncrowded housing	54.63877839
Health Outcomes	—
Insured adults	64.22430386
Arthritis	4.0
Asthma ER Admissions	9.3
High Blood Pressure	6.8
Cancer (excluding skin)	15.0
Asthma	25.7
Coronary Heart Disease	6.8
Chronic Obstructive Pulmonary Disease	11.3
Diagnosed Diabetes	25.3
Life Expectancy at Birth	5.1
Cognitively Disabled	4.9
Physically Disabled	4.5
Heart Attack ER Admissions	28.1
Mental Health Not Good	39.0
Chronic Kidney Disease	10.6

Obesity	31.6
Pedestrian Injuries	19.6
Physical Health Not Good	32.1
Stroke	11.3
Health Risk Behaviors	—
Binge Drinking	71.2
Current Smoker	34.8
No Leisure Time for Physical Activity	38.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	31.0
Elderly	18.2
English Speaking	57.2
Foreign-born	37.5
Outdoor Workers	15.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.5
Traffic Density	45.5
Traffic Access	23.0
Other Indices	—
Hardship	59.3
Other Decision Support	—
2016 Voting	43.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	44.0

Healthy Places Index Score for Project Location (b)	43.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Applicant provided lot size
Construction: Construction Phases	Adjusted to 6-day work week
Operations: Energy Use	Applicant indicated that the project will be constructed as all-electric with no natural gas hookups. Ran CalEEMod with measure E-15 "All-Electric Development" applied. Inputted the resulting electricity per year into kWh/year.
Operations: Off-Road Equipment	Applicant indicated project equipment used for operational loading/unloading
Operations: Hearths	Applicant has indicated the project will be all-electric
Construction: Off-Road Equipment	Tier 4 Final applied for construction equipment feature

B. Species Database Lists



Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Benicia (3812212) OR Mare Island (3812213) OR Walnut Creek (3712281) OR Briones Valley (3712282) OR Richmond (3712283) OR Vine Hill (3812211) OR Fairfield South (3812221) OR Cordelia (3812222) OR Cuttings Wharf (3812223))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAAAA01181	<i>Ambystoma californiense pop. 1</i> California tiger salamander - central California DPS	Threatened	Threatened	G2G3T3	S3	WL
AAABH01022	<i>Rana draytonii</i> California red-legged frog	Threatened	None	G2G3	S2S3	SSC
AAABH01051	<i>Rana boylei pop. 1</i> foothill yellow-legged frog - north coast DPS	None	None	G3T4	S4	SSC
AAABH01054	<i>Rana boylei pop. 4</i> foothill yellow-legged frog - central coast DPS	Threatened	Endangered	G3T2	S2	
ABNGA04010	<i>Ardea herodias</i> great blue heron	None	None	G5	S4	
ABNGA06030	<i>Egretta thula</i> snowy egret	None	None	G5	S4	
ABNGA11010	<i>Nycticorax nycticorax</i> black-crowned night heron	None	None	G5	S4	
ABNJB05035	<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	Delisted	None	G5T3	S3	WL
ABNKC01010	<i>Pandion haliaetus</i> osprey	None	None	G5	S4	WL
ABNKC06010	<i>Elanus leucurus</i> white-tailed kite	None	None	G5	S3S4	FP
ABNKC10010	<i>Haliaeetus leucocephalus</i> bald eagle	Delisted	Endangered	G5	S3	FP
ABNKC11011	<i>Circus hudsonius</i> northern harrier	None	None	G5	S3	SSC
ABNKC12040	<i>Accipiter cooperii</i> Cooper's hawk	None	None	G5	S4	WL
ABNKC19070	<i>Buteo swainsoni</i> Swainson's hawk	None	Threatened	G5	S4	
ABNKC19120	<i>Buteo regalis</i> ferruginous hawk	None	None	G4	S3S4	WL
ABNKC22010	<i>Aquila chrysaetos</i> golden eagle	None	None	G5	S3	FP
ABNKD06071	<i>Falco peregrinus anatum</i> American peregrine falcon	Delisted	Delisted	G4T4	S3S4	
ABNME01010	<i>Coturnicops noveboracensis</i> yellow rail	None	None	G4	S2	SSC
ABNME03041	<i>Laterallus jamaicensis coturniculus</i> California black rail	None	Threatened	G3T1	S2	FP



Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ABNME05011	<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	Endangered	Endangered	G3T1	S2	FP
ABNNB03031	<i>Charadrius nivosus nivosus</i> western snowy plover	Threatened	None	G3T3	S3	SSC
ABNNM08020	<i>Hydroprogne caspia</i> Caspian tern	None	None	G5	S4	
ABNSB10010	<i>Athene cunicularia</i> burrowing owl	None	Candidate Endangered	G4	S2	SSC
ABNSB13040	<i>Asio flammeus</i> short-eared owl	None	None	G5	S2	SSC
ABPAU08010	<i>Riparia riparia</i> bank swallow	None	Threatened	G5	S3	
ABPBX1201A	<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	None	None	G5T3	S3	SSC
ABPBXA301K	<i>Melospiza melodia maxillaris</i> Suisun song sparrow	None	None	G5T3	S2	SSC
ABPBXA301S	<i>Melospiza melodia pusillula</i> Alameda song sparrow	None	None	G5T2T3	S2	SSC
ABPBXA301W	<i>Melospiza melodia samuelis</i> San Pablo song sparrow	None	None	G5T2	S2	SSC
ABPBXB0020	<i>Agelaius tricolor</i> tricolored blackbird	None	Threatened	G1G2	S2	SSC
ABPBXB3010	<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	None	None	G5	S3	SSC
AFCAA01031	<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	Threatened	None	G2T1	S1	SSC
AFCHA0209G	<i>Oncorhynchus mykiss irideus pop. 8</i> steelhead - central California coast DPS	Threatened	None	G5T3Q	S3	SSC
AFCHB01040	<i>Hypomesus transpacificus</i> Delta smelt	Threatened	Endangered	G1	S1	
AFCHB03040	<i>Spirinchus thaleichthys pop. 2</i> longfin smelt - San Francisco Bay-Delta DPS	Endangered	Threatened	G5TNRQ	S1	
AFCJB34020	<i>Pogonichthys macrolepidotus</i> Sacramento splittail	None	None	G3	S3	SSC
AFCQB07010	<i>Archoplites interruptus</i> Sacramento perch	None	None	G1	S1	SSC
AMABA01071	<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	None	None	G5T1	S1	SSC
AMABA01103	<i>Sorex ornatus sinuosus</i> Suisun shrew	None	None	G5T1T2Q	S1S2	SSC
AMACC02010	<i>Lasionycteris noctivagans</i> silver-haired bat	None	None	G3G4	S3S4	



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AMACC05032	<i>Lasiurus cinereus</i> hoary bat	None	None	G3G4	S4	
AMACC08010	<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None	None	G4	S2	SSC
AMACC10010	<i>Antrozous pallidus</i> pallid bat	None	None	G4	S3	SSC
AMACD04020	<i>Nyctinomops macrotis</i> big free-tailed bat	None	None	G5	S3	SSC
AMAFD03061	<i>Dipodomys heermanni berkeleyensis</i> Berkeley kangaroo rat	None	None	G4T1	S2	
AMAFF02040	<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	Endangered	Endangered	G1G2	S3	FP
AMAFF08082	<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	None	None	G5T2T3	S2S3	SSC
AMAFF11034	<i>Microtus californicus sanpabloensis</i> San Pablo vole	None	None	G5T1T2	S1S2	SSC
AMAJF04010	<i>Taxidea taxus</i> American badger	None	None	G5	S3	SSC
ARAAD02031	<i>Actinemys marmorata</i> northwestern pond turtle	Proposed Threatened	None	G2	SNR	SSC
ARACC01020	<i>Anniella pulchra</i> Northern California legless lizard	None	None	G3	S2S3	SSC
ARADB21031	<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	Threatened	Threatened	G4T2	S2	
CTT37C10CA	<i>Northern Maritime Chaparral</i> Northern Maritime Chaparral	None	None	G1	S1.2	
CTT42110CA	<i>Valley Needlegrass Grassland</i> Valley Needlegrass Grassland	None	None	G3	S3.1	
CTT42130CA	<i>Serpentine Bunchgrass</i> Serpentine Bunchgrass	None	None	G2	S2.2	
CTT44100CA	<i>Northern Vernal Pool</i> Northern Vernal Pool	None	None	G2	S2.1	
CTT44120CA	<i>Northern Claypan Vernal Pool</i> Northern Claypan Vernal Pool	None	None	G1	S1.1	
CTT52110CA	<i>Northern Coastal Salt Marsh</i> Northern Coastal Salt Marsh	None	None	G3	S3.2	
CTT52200CA	<i>Coastal Brackish Marsh</i> Coastal Brackish Marsh	None	None	G2	S2.1	
ICBRA03030	<i>Branchinecta lynchi</i> vernal pool fairy shrimp	Threatened	None	G3	S3	
ICBRA06010	<i>Linderiella occidentalis</i> California linderiella	None	None	G2G3	S2S3	



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ICMAL27010	<i>Syncaris pacifica</i> California freshwater shrimp	Endangered	Endangered	G2	S2	
IICOL48011	<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	Threatened	None	G3T3	S3	
IIHYM24252	<i>Bombus occidentalis</i> western bumble bee	None	Candidate Endangered	G3	S1	
IIHYM24260	<i>Bombus pensylvanicus</i> American bumble bee	None	None	G3G4	S2	
IIHYM24380	<i>Bombus caliginosus</i> obscure bumble bee	None	None	G2G3	S1S2	
IIHYM24480	<i>Bombus crotchii</i> Crotch's bumble bee	None	Candidate Endangered	G2	S2	
IILEPJ6091	<i>Speyeria callippe callippe</i> callippe silverspot butterfly	Endangered	None	G5T1	S1	
IILEPP2012	<i>Danaus plexippus plexippus pop. 1</i> monarch - California overwintering population	Proposed Threatened	None	G4T1T2Q	S2	
ILARA47040	<i>Microcina leei</i> Lee's micro-blind harvestman	None	None	G1	S1	
IMGASC2362	<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	None	None	G3T1	S1S2	
NBMUS2W0U0	<i>Fissidens pauperculus</i> minute pocket moss	None	None	G3?	S2	1B.2
NBMUS80010	<i>Anomobryum julaceum</i> slender silver moss	None	None	G5	S2	4.2
PDAP10M051	<i>Cicuta maculata var. bolanderi</i> Bolander's water-hemlock	None	None	G5T4T5	S2?	2B.1
PDAP10Z130	<i>Eryngium jepsonii</i> Jepson's coyote-thistle	None	None	G2	S2	1B.2
PDAP119030	<i>Lilaeopsis masonii</i> Mason's lilaeopsis	None	Rare	G2	S2	1B.1
PDAST11061	<i>Balsamorhiza macrolepis</i> big-scale balsamroot	None	None	G2	S2	1B.2
PDAST1C011	<i>Blepharizonia plumosa</i> big tarplant	None	None	G1G2	S1S2	1B.1
PDAST2E050	<i>Cirsium andrewsii</i> Franciscan thistle	None	None	G3	S3	1B.2
PDAST2E1G1	<i>Cirsium hydrophilum var. hydrophilum</i> Suisun thistle	Endangered	None	G2T1	S1	1B.1
PDAST4M020	<i>Helianthella castanea</i> Diablo helianthella	None	None	G2	S2	1B.2
PDAST4R0P1	<i>Centromadia parryi ssp. congdonii</i> Congdon's tarplant	None	None	G3T2	S2	1B.1



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDAST4R0P2	<i>Centromadia parryi</i> ssp. <i>parryi</i> pappose tarplant	None	None	G3T2	S2	1B.2
PDAST4X020	<i>Holocarpha macradenia</i> Santa Cruz tarplant	Threatened	Endangered	G1	S1	1B.1
PDAST57050	<i>Isocoma arguta</i> Carquinez goldenbush	None	None	G1	S1	1B.1
PDAST5L040	<i>Lasthenia conjugens</i> Contra Costa goldfields	Endangered	None	G1	S1	1B.1
PDAST8H060	<i>Senecio aphanactis</i> chaparral ragwort	None	None	G3	S2	2B.2
PDASTE8470	<i>Symphotrichum lentum</i> Suisun Marsh aster	None	None	G2	S2	1B.2
PDBOR01070	<i>Amsinckia lunaris</i> bent-flowered fiddleneck	None	None	G3	S3	1B.2
PDCAM060C0	<i>Downingia pusilla</i> dwarf downingia	None	None	GU	S2	2B.2
PDCAM0C010	<i>Legenere limosa</i> legenere	None	None	G2	S2	1B.1
PDCAR0W062	<i>Spergularia macrotheca</i> var. <i>longistyla</i> long-styled sand-spurrey	None	None	G5T2	S2	1B.2
PDCHE041F3	<i>Extriplex joaquinana</i> San Joaquin spearscale	None	None	G2	S2	1B.2
PDCHE042P0	<i>Atriplex persistens</i> vernal pool smallscale	None	None	G2	S2	1B.2
PDCHE0P020	<i>Suaeda californica</i> California seablite	Endangered	None	G1	S1	1B.1
PDCON040D2	<i>Calystegia purpurata</i> ssp. <i>saxicola</i> coastal bluff morning-glory	None	None	G4T2T3	S2S3	1B.2
PDCPR07080	<i>Viburnum ellipticum</i> oval-leaved viburnum	None	None	G4G5	S3	2B.3
PDERI04110	<i>Arctostaphylos pallida</i> pallid manzanita	Threatened	Endangered	G1	S1	1B.1
PDFAB0F8R1	<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	None	None	G2T1	S1	1B.2
PDFAB250D2	<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	None	None	G5T2	S2	1B.2
PDFAB40040	<i>Trifolium amoenum</i> two-fork clover	Endangered	None	G1	S1	1B.1
PDFAB400R5	<i>Trifolium hydrophilum</i> saline clover	None	None	G2	S2	1B.2
PDFAB5Z030	<i>Hoita strobilina</i> Loma Prieta hoita	None	None	G2?	S2?	1B.1



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDMAL0Q0F0	<i>Malacothamnus hallii</i> Hall's bushmallow	None	None	G2	S2	1B.2
PDONA0C0B4	<i>Oenothera deltooides ssp. howellii</i> Antioch Dunes evening-primrose	Endangered	Endangered	G5T1	S1	1B.1
PDPAP0G030	<i>Meconella oregana</i> Oregon meconella	None	None	G2	S2	1B.1
PDPGN085Z0	<i>Eriogonum truncatum</i> Mt. Diablo buckwheat	None	None	G1	S1	1B.1
PDPGN0L1C0	<i>Polygonum marinense</i> Marin knotweed	None	None	G2Q	S2	3.1
PDPLM09140	<i>Leptosiphon jepsonii</i> Jepson's leptosiphon	None	None	G2G3	S2S3	1B.2
PDSCR0D013	<i>Castilleja affinis var. neglecta</i> Tiburon paintbrush	Endangered	Threatened	G4G5T1T2	S1S2	1B.2
PDSCR0J0C3	<i>Chloropyron maritimum ssp. palustre</i> Point Reyes salty bird's-beak	None	None	G4?T2	S2	1B.2
PDSCR0J0D2	<i>Chloropyron molle ssp. molle</i> soft salty bird's-beak	Endangered	Rare	G2T1	S1	1B.2
PDSCR10030	<i>Limosella australis</i> Delta mudwort	None	None	G5	S2	2B.1
PDTHY03010	<i>Dirca occidentalis</i> western leatherwood	None	None	G2	S2	1B.2
PMCYP037Y0	<i>Carex lyngbyei</i> Lyngbye's sedge	None	None	G5	S3	2B.2
PMLIL0D160	<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	None	None	G2	S2	1B.2
PMLIL0V0C0	<i>Fritillaria liliacea</i> fragrant fritillary	None	None	G2	S2	1B.2
PMPOA53110	<i>Puccinellia simplex</i> California alkali grass	None	None	G2	S2	1B.2
PMPOA53110	<i>Stuckenia filiformis ssp. alpina</i> northern slender pondweed	None	None	G5T5	S2S3	2B.2

Record Count: 119

Scientific	Common	Family	Lifeform	CRPR	GRank	SRank	OtherStatu	CESA	FESA	Blooming	Habitat	Microhabit	Microhabit	ElevationL	ElevationL	ElevationH	ElevationHigh_ft
Amsinckia	bent-flowe	Boraginac	annual her	1B.2	G3	S3	BLM_S; SB	None	None	Mar-Jun	Cismontane woodland, Coastal l			3	10	500	1640
Androsace	California	Primulace	annual her		4.2 G5?	T3T4	S3S4	SB_CalBG; None	None	Mar-Jun	Chaparral, Cismontane woodlan			150	490	1305	4280
Anomobry	slender sil	Bryaceae	moss		4.2 G5	S2		None	None		Broadleaf damp rock	Roadside		100	330	1000	3280
Arctostaph	pallid man	Ericaceae	perennial c	1B.1	G1	S1	SB_CalBG; CE	FT	Dec-Mar		Broadleaf siliceous s	Gravelly (s		185	605	465	1525
Astragalus	alkali milk	Fabaceae	annual her	1B.2	G2T1	S1	SB_UCSC	None	None	Mar-Jun	Playas, Valley and f	Alkaline		1	5	60	195
Atriplex	co crownscal	Chenopod	annual her		4.2 G4T3	S3	SB_CalBG; None	None	None	Mar-Oct	Chenopod scrub, Val	Alkaline, C		1	5	590	1935
Atriplex	pe vernal poo	Chenopod	annual her	1B.2	G2	S2		None	None	Jun-Oct	Vernal pools (alkaline)			10	35	115	375
Balsamorh	big-scale t	Asteraceae	perennial l	1B.2	G2	S2	BLM_S; US	None	None	Mar-Jun	Chaparral, Cismontai	Serpentin		45	150	1555	5100
Blephariz	big tarplan	Asteraceae	annual her	1B.1	G1G2	S1S2	SB_CalBG; None	None	None	Jul-Oct	Valley and foothill gra	Clay (usu		30	100	505	1655
Calochort	Mt. Diablo	Liliaceae	perennial l	1B.2	G2	S2	SB_CalBG; None	None	None	Apr-Jun	Chaparral, Cismontane woodlan			30	100	840	2755
Calochort	Oakland st	Liliaceae	perennial l		4.2 G3?	S3?	SB_UCBG	None	None	Mar-May	Broadleafed upland f	Serpentin		100	330	700	2295
Calystegia	coastal bli	Convolvul	perennial l	1B.2	G4T2T3	S2S3		None	None	(Mar)Apr-S	Coastal bluff scrub, Coastal dun			0	0	105	345
Carex	lyng	Lyngbye's	Cyperaceae	perennial r	2B.2	G5	S3	IUCN_LC	None	None	Apr-Aug	Marshes and swamps (brackish,		0	0	10	35
Castilleja	Tiburon pa	Orobanch	perennial l	1B.2	G4G5T1T2	S1S2	SB_CalBG; CT	FE	Apr-Jun		Valley and foothill grassland (ser			60	195	400	1310
Castilleja	Johnny-nip	Orobanch	annual her		4.2 G5T4	S3S4	SB_CalBG; None	None	None	Mar-Aug	Coastal bluff scrub, Coastal prai			0	0	435	1425
Centromar	Congdon's	Asteraceae	annual her	1B.1	G3T2	S2	BLM_S; SB	None	None	(Apr)May-C	Valley and foothill grassland (alk			0	0	230	755
Centromar	pappose t	Asteraceae	annual her	1B.2	G3T2	S2	BLM_S	None	None	May-Nov	Chaparral, Coastal pr	Alkaline (c		0	0	420	1380
Chloropyr	Point Reye	Orobanch	annual her	1B.2	G4?T2	S2	BLM_S; SB	None	None	Jun-Oct	Marshes and swamps (coastal sc			0	0	10	35
Chloropyr	soft salty t	Orobanch	annual her	1B.2	G2T1	S1	SB_CalBG; CR	FE	Jun-Nov		Marshes and swamps (coastal sc			0	0	3	10
Cicuta	ma Bolander's	Apiaceae	perennial l	2B.1	G5T4T5	S2?	SB_CalBG; None	None	None	Jul-Sep	Marshes and swamps (brackish,			0	0	200	655
Cirsium	an Franciscan	Asteraceae	perennial l	1B.2	G3	S3	SB_CalBG; None	None	None	Mar-Jul	Broadleafed upland f	Mesic, Ser		0	0	150	490
Cirsium	hy Suisun thi	Asteraceae	perennial l	1B.1	G2T1	S1	SB_CalBG; None	FE	Jun-Sep		Marshes and swamps (salt)			0	0	1	5
Dirca	occir western le	Thymelae	perennial l	1B.2	G2	S2	SB_CalBG; None	None	None	Jan-Mar(A	Broadleafed upland f	Mesic		25	80	425	1395
Downingia	dwarf dow	Campanul	annual her	2B.2	GU	S2		None	None	Mar-May	Valley and foothill grassland (me			1	5	445	1460
Eleocharis	small spik	Cyperaceae	perennial l		4.3 G5	S3		None	None	(Apr)Jun-A	Marshes and swamps			1	5	3020	9910
Eriogon	bi streamsid	Asteraceae	perennial l		3 G3?	S3?		None	None	Jun-Oct	Broadleafed upland f	Mesic, Ro		30	100	1100	3610
Eriogonum	Mt. Diablo	Polygonac	annual her	1B.1	G1	S1	SB_UCBG	None	None	Apr-Sep(N	Chaparral, Coastal sc	Sandy		3	10	350	1150
Eryngium	j Jepson's c	Apiaceae	perennial l	1B.2	G2	S2	SB_CalBG; None	None	None	Apr-Aug	Valley and foothill gra	Clay		3	10	300	985
Erythranth	cut-leaved	Phymace	annual her		4.3 G4	S4		None	None	Apr-Jul	Chaparral, Lower moi	Granitic, M		490	1610	2650	8695
Extriplex	jo San Joaqui	Chenopod	annual her	1B.2	G2	S2	BLM_S; SB	None	None	Apr-Oct	Chenopod scrub, Me	Alkaline		1	5	835	2740
Fissidens	minute poi	Fissident	moss	1B.2	G3?	S2	USFS_S	None	None		North Coast coniferous forest (di			10	35	1024	3360
Fritillaria	li fragrant fri	Liliaceae	perennial l	1B.2	G2	S2	SB_CalBG; None	None	None	Feb-Apr	Cismontane woodlan	Serpentin		3	10	410	1345
Helianthel	Diablo heli	Asteraceae	perennial l	1B.2	G2	S2	BLM_S; SB	None	None	Mar-Jun	Broadleaf Azonal soil	Rocky (usu		60	195	1300	4265
Hespererva	hogwallow	Asteraceae	annual her		4.2 G3	S3		None	None	Mar-Jun	Valley and foothill gra	Alkaline (s		0	0	505	1655
Hoita	strot Loma Priet	Fabaceae	perennial l	1B.1	G2?	S2?	SB_CalBG; None	None	None	May-Jul(A	Chaparral, Cismontai	Mesic, Ser		30	100	860	2820
Holocarph	Santa Cruz	Asteraceae	annual her	1B.1	G1	S1	SB_CalBG; CE	FT	Jun-Oct		Coastal prairie, Coas	Clay (offe		10	35	220	720
Iris	longipe coast iris	Iridaceae	perennial r		4.2 G3	S3	SB_UCSC	None	None	Mar-May(J	Coastal prairie, Lowe	Mesic		0	0	600	1970
Isocoma	a Carquinez	Asteraceae	perennial l	1B.1	G1	S1	SB_UCBG	None	None	Aug-Dec	Valley and foothill grassland (alk			1	5	20	65
Lasthenia	a Contra Co	Asteraceae	annual her	1B.1	G1	S1	SB_UCBG	None	FE	Mar-Jun	Cismontane woodlan	Mesic		0	0	470	1540
Lasthenia	Ferris' golc	Asteraceae	annual her		4.2 G3	S3		None	None	Feb-May	Vernal pools (alkaline, clay)			20	65	700	2295
Lathyrus	je Delta tula	Fabaceae	perennial l	1B.2	G5T2	S2	SB_BerryS	None	None	May-Jul(A	Marshes and swamps (brackish,			0	0	5	15
Legenere	li legenere	Campanul	annual her	1B.1	G2	S2	BLM_S; SB	None	None	Apr-Jun	Vernal pools			1	5	880	2885
Leptosiph	bristly lept	Polemonia	annual her		4.2 G4?	S4?		None	None	Apr-Jul	Chaparral, Cismontane woodlan			55	180	1500	4920
Leptosiph	large-flowr	Polemonia	annual her		4.2 G3G4	S3S4		None	None	Apr-Aug	Cismontane woodlan	Sandy (us		5	15	1220	4005
Leptosiph	Jepson's le	Polemonia	annual her	1B.2	G2G3	S2S3	SB_CalBG; None	None	None	Mar-May	Chaparral, Cismontai	Volcanic (		100	330	500	1640
Lessingia	l woolly-her	Asteraceae	annual her		3 G2G3	S2S3		None	None	Jun-Oct	Broadleafed upland f	Clay, Serp		15	50	305	1000
Lilaeopsis	Mason's lil	Apiaceae	perennial r	1B.1	G2	S2	CR	None	None	Apr-Nov	Marshes and swamps (brackish,			0	0	10	35
Limosella	Delta mud	Scrophula	perennial l	2B.1	G5	S2		None	None	May-Aug	Marshes a Usually mi	Streambai		0	0	3	10
Malacotha	Hall's bust	Malvaceae	perennial c	1B.2	G2	S2	BLM_S; SB	None	None	(Apr)May-S	Chaparral, Coastal scrub			10	35	760	2495
Meconella	Oregon me	Papaverac	annual her	1B.1	G2	S2	SB_CalBG; None	None	None	Mar-Apr	Coastal prairie, Coastal scrub			250	820	620	2035
Monardella	San Antoni	Lamiaceae	perennial r		3 G4T1T3Q	S1S3		None	None	Jun-Aug	Chaparral, Cismontane woodlan			320	1050	1000	3280
Oenothera	Antioch Di	Onagraceae	perennial l	1B.1	G5T1	S1	SB_CalBG; CE	FE	Mar-Sep		Inland dunes			0	0	30	100
Polygonum	Marin knot	Polygonac	annual her		3.1 G2Q	S2		None	None	(Apr)May-J	Marshes and swamps (brackish,			0	0	10	35
Puccinellia	California	Poaceae	annual her	1B.2	G2	S2	BLM_S	None	None	Mar-May	Chenopoc sinks	Alkaline, F		2	5	930	3050
Ranunculu	Lobb's aq	Ranuncula	annual her		4.2 G4	S3		None	None	Feb-May	Cismontane woodlan	Mesic		15	50	470	1540
Senecio	a chaparral	Asteraceae	annual her	2B.2	G3	S2		None	None	Jan-Apr(M	Chaparral, Cismontai	Alkaline (s		15	50	800	2625
Spergulari	long-stylar	Caryophyl	perennial l	1B.2	G5T2	S2		None	None	Feb-May	Marshes and swamps	Alkaline		0	0	255	835
Stuckenia	northern si	Potamoget	perennial l	1B.2	G5T5	S2S3		None	None	May-Jul	Marshes and swamps (shallow fr			300	985	2150	7055
Suaeda	ca California	Chenopod	perennial c	1B.1	G1	S1	SB_CalBG; None	FE	Jul-Oct		Marshes and swamps (coastal sc			0	0	15	50
Symphyotr	Suisun Ma	Asteraceae	perennial r	1B.2	G2	S2	SB_CalBG; None	None	None	(Apr)May-J	Marshes and swamps (brackish,			0	0	3	10
Trifolium	a two-fork cl	Fabaceae	annual her	1B.1	G1	S1	SB_CalBG; None	FE	Apr-Jun		Coastal bluff scrub, Valley and f			5	15	415	1360
Trifolium	h saline clov	Fabaceae	annual her	1B.2	G2	S2		None	None	Apr-Jun	Marshes and swamps, Valley anc			0	0	300	985
Viburnum	oval-leave	Viburnace	perennial c	2B.3	G4G5	S3		None	None	May-Jun	Chaparral, Cismontane woodlan			215	705	1400	4595



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

02/18/2025 21:47:31 UTC

Project Code: 2025-0058039

Project Name: 201 Rollingwood Vallejo Redevelopment

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

PROJECT SUMMARY

Project Code: 2025-0058039
Project Name: 201 Rollingwood Vallejo Redevelopment
Project Type: Residential Construction
Project Description: Development
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.090652649999996,-122.20915148497987,14z>



Counties: Solano County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 13 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/613	Endangered

BIRDS

NAME	STATUS
California Least Tern <i>Sternula antillarum browni</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
California Ridgway's Rail <i>Rallus obsoletus obsoletus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

REPTILES

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5524	Threatened
Northwestern Pond Turtle <i>Actinemys marmorata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
Western Spadefoot <i>Spea hammondi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRUSTACEANS

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

FLOWERING PLANTS

NAME	STATUS
Contra Costa Goldfields <i>Lasthenia conjugens</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7058	Endangered
Soft Bird's-beak <i>Cordylanthus mollis ssp. mollis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8541	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: ESA

Name: Liza Ryan

Address: 775 Baywood Dr. Suite 100

City: Petaluma

State: CA

Zip: 94954

Email: lizahr@gmail.com

Phone: 7072850583

C. DPR 523A Primary Record Form

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 7

***Resource Name or #:** 201 Rollingwood Drive

P1. Other Identifier: None

***P2. Location:** ☐ Not for Publication ☒ Unrestricted

***a. County** Solano

***b. USGS 7.5' Quad** Benecia, CA **Date** 2021 **T** 3N; **R** 3W; $\frac{1}{4}$ of $\frac{1}{4}$ of Sec ; Mount Diablo **B.M.**

c. Address 201 Rollingwood Drive City Vallejo Zip 94591

d. UTM: Zone 10S, 569374.87 mE/ 4216474.17 mN; NAD 83

e. Other Locational Data: APN 0072-170-060

***P3a. Description:** The concession stand at 201 Rollingwood Drive is a one-story ancillary building located on the northeast portion of an 11.71-acre parcel that has been improved with baseball facilities. The building features an irregular footprint measuring approximately 55 feet long and 25 feet wide. The building's original (north) volume is of concrete masonry unit (CMU) construction and capped with a flat roof with overhanging eaves. The building's ca. 1980s addition (south) is clad with vertical wood board and capped with a shed roof with an overhanging eave with exposed rafter tails on the south façade. The east façade faces a row of paved parking on Rollingwood Drive and features three unglazed metal doors. A portion of the building's brick siding has been covered by particle board. The north façade features an unglazed door. The west façade faces two former baseball fields and features three concession openings covered with wood and metal coverings. The south façade features a wood panel door covered with a metal screen door.

***P3b. Resource Attributes:** HP4. Ancillary building

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: East façade of concession stand, view facing west. ESA, 2025.

***P6. Date Constructed/Age and Source:**

☒ Historic ☐ Prehistoric

☐ Both

Ca. 1965–1968. Source: Historicaerials.com (1968); CAS-65-130 (May 1, 1965).

***P7. Owner and Address:**

Vallejo Unified School District
665 Walnut Avenue
Vallejo, CA 94592

P8. Recorded by:

Matt Mattes, ESA
180 Grand Avenue, Suite 1050
Oakland, CA 94612

***P9. Date Recorded:** January 29, 2025.

***P10. Survey Type:** Intensive

***P11. Report Citation:** ESA. *Cultural Resources Assessment for the 201 Rollingwood Drive Residential Project*. Prepared for the City of Vallejo, California. February 2025.

***Attachments:** ☐ NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # 201 Rollingwood Drive *NRHP Status Code 6Z

Page 2 of 7

B1. Historic Name: Unknown

B2. Common Name: Unknown

B3. Original Use: Concessions stand

B4. Present Use: Vacant

*B5. Architectural Style: Modern

*B6. Construction History: (Construction date, alterations, and date of alterations)

A review of historic aerial photographs indicates that the building was constructed ca. 1965–1968. A shed addition was constructed on the south façade of the building at some point between 1982 and 1987.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: N/A Original Location: N/A

*B8. Related Features: The subject building is located on the northeast portion of an assemblage of four recreational baseball fields located on APN 0072-170-060. Portions of the two southernmost baseball fields also extend to an adjacent parcel to the south (APN 0072-170-050).

B9a. Architect: Unknown

b. Builder: Unknown

*B10. Significance: Theme Recreational Development Area Solano County

Period of Significance N/A Property Type Concessions stand Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The building at 201 Rollingwood Drive is recommended ineligible for listing in the California Register of Historical Resources (California Register) or City of Vallejo Historic Resources Inventory (City of Vallejo HRI) under any criteria. As such, the building is not considered a historical resource for the purposes of CEQA.

Brief History of Vallejo

When Alta California became an American territory after the Treaty of Guadalupe-Hidalgo in 1848, General Vallejo lobbied to ensure that one of his land parcels become a new state capitol. When California joined the Union in 1850, Vallejo offered to donate \$370,000 and 156 acres of land for a new state capital that he suggested being named Eureka, complete with schools, hospitals, asylums, and a state penitentiary. After a state-wide referendum was held in late 1850, the California State Legislature accepted the proposal, but instead determined that the new city would be called Vallejo in honor of the Mexican general.¹ In 1852, Vallejo became the first permanent seat of California's state government. Its tenure as the state capitol, however, was brief. Vallejo's promise of a grand, picturesque city had not been realized by the time state legislators arrived in the sparsely appointed mining town. After only eleven days in town, the new state legislature decamped to Sacramento to finish out the session. In 1853, the government seat relocated temporarily to neighboring Benicia before moving permanently to Sacramento.²

See continuation sheet.

B11. Additional Resource Attributes: (List attributes and codes) HP39. Other – Baseball field

*B12. References:

See continuation sheet.

B13. Remarks:

*B14. Evaluator: Amy Langford, ESA

*Date of Evaluation: February 2025



¹ "Vallejo—Our History," Vallejo Naval & Historical Museum, accessed January 30, 2025, <https://vallejomuseum.net/vallejo-history/>.

² "Vallejo—Our History."

*Recorded by: Amy Langford, ESA

*Date: February 2025

☒ Continuation

☐ Update

*B10. **Significance:** (Continued from page 2)

Following the removal of the government seat to Benecia, General Vallejo's son-in-law, John B Frisbie enticed settlers to remain in the region by selling them lots to construct residences and establish businesses upon.³ Frisbie also hired E.H. Rowe to design the new city's layout, which included naming east-west streets after states and north-south streets after California counties. Frisbie also helped establish Vallejo's first city government and lobbied diligently in Washington, D.C., which resulted in the city's incorporation in 1867.⁴

Vallejo in the Twentieth Century

Ongoing military operations at the nearby Mare Island Naval Shipyard⁵ fostered sustained growth in Vallejo throughout the first half of the twentieth century. The United States' involvement in the Spanish-American War (1898) and World War II (1917–1918) prompted the rapid expansion of the Nation's fleet in the Pacific and, in turn, resulted in a rapidly expanding in need of homes, public utilities, recreation, and other daily amenities. The Vallejo waterworks was established in 1894 and, by 1905, a network of ferry and electric railroad infrastructure enabled Vallejo residents to travel to nearby urban markets with relative ease and speed.⁶ Vallejo's downtown grew apace, and soon boasted a thriving residential neighborhood comprised of the homes of businessowners, doctors, and lawyers on eastern Georgia Street. In turn, western Georgia Street and the surrounding streets became the hub of the City's municipal and commercial development, with buildings such as the Empress Theater (1911), Masonic Temple (1917), Vallejo YMCA (1919), and the Vallejo City Hall (1927).⁷

The influx of military and shipyard workers to the surrounding area during World War II pushed Vallejo's residential and commercial expansion beyond the City's established downtown core. Between 1941 and 1945, Vallejo experienced a wartime housing boom. In an effort to provide temporary housing for wartime workers, the City enlisted the expertise of local architects, such as William Wurster, to design several housing projects located throughout the City, such as Chabot Terrace, Federal Terrace, Roosevelt Terrace, Carquinez Heights, Floyd Terrace, Guadalcanal Village, Hillside Dormitories, Almador Apartments, and Victory Apartments.⁸ Many of these housing projects were demolished during the immediate postwar period. However, many of the projects' former occupants elected to remain in Vallejo and purchased or constructed single-family residences in newer subdivisions that stretched eastward beyond Highway 80, eventually encompassing the former agricultural parcels within the Project Area.⁹

Subject Property

Property and Building History

Preliminary research indicates that the subject property (APN 0072-170-060) was one of many agricultural parcels in eastern Vallejo that were sold and developed for residential or recreational purposes during the post-World War II period. According to an 1896 topographic map, the subject property and vicinity was improved with several dispersed rural residences and small-scale agricultural operations by the end of the 19th century.¹⁰ A review of subsequent aerial photographs indicates that the subject property was used for agricultural purposes until the 1950s. In 1957, a baseball field (not extant) is visible on an aerial photograph north of Benecia Road, approximately 0.25 miles southwest of the subject property (APN 0072-170-210).¹¹ Relatively few distinguishable modifications appear to have been made to the subject property and immediate vicinity until between ca. 1965¹² and 1968.¹³ During this period, four baseball fields were constructed on the subject property and adjacent parcel (APN 0072-170-050). By 1968 a small ancillary building (the extant concessions stand) with a rectangular footprint and what appear to be two smaller ancillary structures (no longer extant) are present on the west side of Rollingwood Drive. An addition to the ancillary building was constructed along its south façade between 1982¹⁴ and 1987.¹⁵

Ownership and Occupancy History

³ "Time to Learn About Vallejo."

⁴ "Time to Learn About Vallejo."

⁵ Mare Island was purchased by the United States Navy in 1853 to establish the first naval installation on the West Coast. "Mare Island Naval Shipyard," Naval History and Heritage Command, accessed January 30, 2025, <https://www.history.navy.mil/browse-by-topic/organization-and-administration/historic-bases/mare-island.html>.

⁶ "Vallejo—Our History."

⁷ "Vallejo—Our History."

⁸ Vallejo Naval & Historical Museum, "Vallejo's Wartime Housing," May 2009, accessed January 30, 2025, <https://vallejomuseum.blogspot.com/2009/05/vallejos-wartime-housing.html>.

⁹ "Vallejo's Wartime Housing."

¹⁰ U.S. Geological Survey, Carquinez Strait, 1:62500. Topographic Quadrangle Map. Carquinez Strait, California, 1896.

¹¹ Historicaerials.com, aerial photographic imagery for the subject property, 1957, accessed February 4, 2025.

¹² UC Santa Barbara Library, Framefinder aerial imagery, CAS-65-130, Frame 49-28, Scale: 1:12,000, May 1, 1965.

¹³ Historicaerials.com, aerial photographic imagery for the subject property, 1968, accessed February 4, 2025.

¹⁴ Historicaerials.com, aerial photographic imagery for the subject property, 1982, accessed February 4, 2025.

¹⁵ Historicaerials.com, aerial photographic imagery for the subject property, 1987, accessed February 4, 2025.

*Recorded by: Amy Langford, ESA

*Date: February 2025

☒ Continuation

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The baseball field complex on Rollingwood Drive (APNs 0072-170-060 and 0072-170-050) were used seasonally by the City of Vallejo's East Vallejo Little League from the late 1950s to the early 2000s. In 1955, a committee headed by Vallejo resident Jerry Campbell met with local builder Jack Stegge¹⁶ and obtained a large parcel of land to establish a new recreational ball park for the newly-franchised East Vallejo Little League.¹⁷ Early descriptions of the ballpark describes it as a 370 feet by 320 feet lot with a removable fence located 180 feet from home place, a permanent fence located 225 feet down each foul line, and a "center field fence...divided into 50 four by eight feet plots to be used for advertising signs."¹⁸ The inaugural 1956 season played on "Stegge Field" was funded in part by money raised by donations and the sale of soft drinks to spectators.¹⁹

While a single baseball field (not extant) was recorded on a 1957 aerial photograph to the southeast of the subject property (APN 0072-170-210), further archival research did not that the League's original "Stegge Field" was located near the subject property or that the subject property (APN 0072-170-060) was included in the parcel originally provided by Jack Stegge to the East Vallejo Little League. However, preliminary research suggests that the League likely utilized the baseball field complex constructed in part on the subject property during the 1960s and continued to regularly use the baseball facilities (including the extant concessions stand) until the early 2000s. An SFGate article published in 2007 noted that the League closed out their final season at the complex after an extended period of use after the property's owner, the Vallejo Unified School District (District), announced plans to sell off four district-owned "surplus" parcels (including APNs 0072-170-060 and 0072-170-050) to residential developer KB Homes to offset the District's financial deficit.²⁰ Initial development plans for the property stalled during the 2008 economic downturn and the fields fell into disuse.²¹ In 2022, the four unused little league fields "once home for East Vallejo Little League baseball" located on "the 17.1 acres of land located along Rollingwood Drive and Benecia Road" were sold at auction to KB Home North Bay, LLC, for the development of a residential subdivision.²²

Regulatory Framework

California Register of Historical Resources

To be eligible for the California Register of Historical Resources (California Register) a historical resource must be significant under one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important to prehistory or history.

City of Vallejo Historic Resources Inventory

The City of Vallejo Planning Division maintains a historic resources inventory (HRI) of known and potential historic resources. The Architectural Heritage and Landmarks Commission is responsible for designating historic districts and landmarks. General criteria which the Architectural Heritage and Landmarks Commission shall use when deciding whether to designate a property as a landmark are as follows:

1. Architectural Merit:
 - a. Property that is the first, last, only, or most significant architectural property of its type in the city or region.
 - b. Property that is the prototype of, or outstanding example of, periods, styles, architectural movements, engineering or construction techniques, or an example of the more notable work, or of the best surviving work in the city or region of an architect, designer, or master builder.
 - c. Architectural examples worth preserving for the values they add when integrated into the total fabric of the city's neighborhoods;
2. Cultural Value: Structures, objects, sites and areas associated with the movement or evolution or religious, cultural, governmental, social, and economic developments of the city;

¹⁶ "Stegge Famous As Home Builder and Contractor," *The Times Herald*, August 26, 1951, p. 35.

¹⁷ "East Vallejo New: Children Heroes of Fire in Dixon," *The Times Herald*, March 21, 1956, p. 13.

¹⁸ "East Vallejo New: Children Heroes of Fire in Dixon."

¹⁹ "East Vallejo New: Children Heroes of Fire in Dixon."

²⁰ Chip Johnson, "Play Ball! But Where?" *SFGATE*, July 17, 2007, <https://www.sfgate.com/education/article/PLAY-BALL-BUT-WHERE-2569843.php>, accessed January 4, 2025.

²¹ John Glidden, "Vallejo school board to sell unused little league fields to home builder for \$8M," *Vallejo Sun*, March 15, 2022, <https://www.vallejoun.com/vallejo-school-board-to-sell-unused-little-league-fields-to-home-builder-for-8m/>, accessed January 4, 2025.

²² Glidden, 2022.

*Recorded by: Amy Langford, ESA

*Date: February 2025

☒ Continuation

☐ Update

3. Educational Value: Structures worth preserving for their educational value;
4. Historical Value: Preservation and enhancement of structures, objects, sites and areas that embody and express the history of Vallejo, Solano County, California, or the United States. History may be social, cultural, economic, political, religious, or military; and
5. Any property which is listed on the National Register and is described in Section 470a of Title 16 of the United States Code and/or is a registered state landmark.

Any property which the Architectural Heritage and Landmarks Commission finds to meet the above criteria may be classified and designated as follows:

1. City Landmark: City landmarks shall include those structures found to have unique historical, architectural, or aesthetic interest or value and which are eligible for or listed on the National Register of Historic Places.
2. Historic Structure: Historic structures shall include those structures found to have outstanding historical, architectural, or aesthetic interest or value.
3. Structure of Merit: Structures of merit shall include those structures found to have significant historical, architectural, or aesthetic interest or value.
4. Contributing Structure: Contributing structures shall include those structures found to warrant special historical, architectural, or aesthetic interest or value.²³

Significance Evaluation

California Register

The building at 201 Rollingwood Drive is evaluated below for potential historic significance according to California Register of Historical Resources (California Register) Criteria 1 through 4.

Criterion 1 – Events

The building at 201 Rollingwood Drive associated with local patterns of recreational development in Vallejo during the mid-twentieth century, but not in an individually significant way. The building is located on one of many former agricultural parcels that were sold for further development during the post-World War II housing boom. While the neighboring parcels were improved with large residential tracts, the subject parcel was eventually graded and developed for recreational use. By the 1960s, the parcel and associated concession building were used seasonally by the East Vallejo Little League, an organization that formalized boys' youth baseball in eastern Vallejo. The building is one of many ancillary properties constructed during the expanded period of residential and recreational construction that took place in eastern Vallejo during the post-World War II period. Archival review of historic newspapers and historic aerial photographs do not indicate that there are any significant associations between the property and important events or patterns in history beyond its general association with post-war recreational development. Therefore, it is recommended ineligible under Criterion 1.

Criterion 2 – People

Preliminary archival review does not indicate that there are any significant associations between the ancillary building at 201 Rollingwood Drive and significant persons in the past. A review of historical newspapers, census, and city directory data did not identify any person of significance having owned or been associated with the building. The building was constructed ca. 1965-1968 and appears to have continuously functioned as a seasonal concession stand associated with the Little League baseball complex located on the same parcel. While preliminary research indicates that the East Vallejo Little League originally played on land donated to the League by John Stegge, a well-known local contractor whose construction company helped build Vallejos Vista Del Mar project²⁴ in the 1950s, records did not confirm that the original "Stegge Field" was located at 201 Rollingwood Drive or that Stegge maintained any ongoing association with the League beyond his initial philanthropy. As a seasonal commercial building, the concession stand was likely occupied by short-term and volunteer staff and frequented by many athletes and family members for much of the latter half of the twentieth century, none of whom appear to have

²³ "Contributing" is commonly used in reference to a property within an identified historic district. The Vallejo Heritage and Historic Preservation Ordinance uses "contributing" to mean "contribute to and serve as visible reminders of the cultural, aesthetic and architectural heritage of Vallejo." Vallejo Municipal Code Section 16.614.01.

²⁴ "Stegge Famous As Home Builder and Contractor."

*Recorded by: Amy Langford, ESA

*Date: February 2025

☒ Continuation

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achieved personal or professional achievements associated with the subject building. For these reasons, 210 Rollingwood Drive is recommended ineligible under Criterion 2.

Criterion 3 – Design/Engineering

The ancillary building at 201 Rollingwood Drive was constructed as a seasonal Little League Baseball concession stand ca. 1965–1968. The building is a modest example of an ancillary building constructed with modest elements of the Modern Style, such as a flat roof and horizontal massing. It does not appear to be significant for its design or engineering. No specific architect or designer is associated with the ancillary building at 201 Rollingwood Drive, nor does it appear to be the work of a master architect. For these reasons, 201 Rollingwood Drive is recommended ineligible under Criterion 3.

Criterion 4 – Information Potential

While most often applied to archaeological districts and sites, Criterion 4 can also apply to buildings, structures, and objects that contain important information. For these types of properties to be eligible under Criterion 4, they themselves must be, or must have been, the principal source of the important information, and the information must be considered important. The building at 201 Rollingwood Drive is representative of ancillary recreational property types constructed in Vallejo and Solano County during the twentieth century. The building was constructed of standard materials and with standard methodologies. Furthermore, the construction and manufacturing methodologies of mid-twentieth-century ancillary concession buildings are well documented. There is no evidence to suggest that 201 Rollingwood Drive would yield significant information that would expand our current knowledge or theories of design, methods of construction, or other information that is not already known. As such, it is recommended ineligible under Criterion 4.

City of Vallejo Historic Resources Inventory

The City of Vallejo Planning Division maintains a historic resources inventory (HRI) of known and potential historic resources. The building at 201 Rollingwood Drive is evaluated below for eligibility for listing on the HRI as a City Landmark, Historic Structure, Structure of Merit, or Contributing Structure according to the following criteria.

Architectural Merit – The building at 201 Rollingwood Drive is not the first, last, only, or most significant architectural property of its type (i.e., concessions stand) in Vallejo or the region. Based on the research and analysis presented above, it does not appear to be the prototype of, or outstanding example of, a period, style, architectural movement, engineering or construction technique, or example of the more notable work, or the best surviving work in Vallejo or the region of an architect, designer, or master builder.

Cultural Value – Based on the research and analysis presented above, the building at 201 Rollingwood Drive does not appear to be significantly associated with the movement or evolution of religious, cultural, governmental, social, and/or economic developments of Vallejo.

Educational Value – Based on the research and analysis presented above, the building at 201 Rollingwood Drive does not appear to possess significant educational value beyond what is publicly available in the archival record.

Historical Value – Based on the research and analysis presented above, the building at 201 Rollingwood Drive does not appear to embody and express the history of Vallejo, Solano County, California, or the United States. The building is a common example of a small ancillary building constructed between 1965 and 1968, which is relatively late in the existence of the city, county, state, and country.

Historic Property – The building at 201 Rollingwood Drive is not a historic property listed in the National Register (either individually or as a contributor to a historic district) or a registered California Historical Landmark.

Integrity Analysis

In addition to being eligible for listing under at least one of the California Register or City of Vallejo HRI criteria, a property must also retain sufficient integrity to convey its historical significance. There are seven aspects to consider when evaluating the integrity of a property: location, design, setting, materials, workmanship, feeling, and association. As discussed above, the ancillary building at 201 Rollingwood Drive is not recommended as eligible for listing under any criteria; therefore, a further assessment of integrity is not presented.

Summary

In summary, the building at 201 Rollingwood Drive is recommended ineligible for listing in the California Register or City of Vallejo HRI under any criteria. As such, the building is not considered a historical resource for the purposes of CEQA.

*B12. **References:** (Continued from page 2)

*Recorded by: Amy Langford, ESA

*Date: February 2025

☒ Continuation

☐ Update

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D. Transportation Impact Analysis (TIA)



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April 2025

Final
Transportation Impact Analysis

Vallejo Rollingwood Residential Development

Prepared for:
The City of Vallejo

FINAL

Rollingwood Residential Development

Transportation Impact Analysis

Prepared for:
City of Vallejo

April 2025

WC23-4020

FEHR  PEERS

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Executive Summary

This report presents the Transportation Impact Analysis (TIA) prepared for the Rollingwood Residential Development Project in the City of Vallejo, California. The TIA includes a vehicle miles traveled (VMT) analysis, level of service (LOS) assessment, and site plan review and recommendations. The study has been prepared in accordance with the *City of Vallejo Traffic Impact Analysis/Study Guidelines* (Public Works Department) guidelines and methodologies.

Project Description

The currently vacant project site is located at 201 Rollingwood Drive in Vallejo, California. **Figure 1** illustrates the site location and study intersections. The proposed project would develop 130 single family detached homes west of Rollingwood Drive and south of Dryden Drive. Project site access would be provided via roadway connections to Rollingwood Drive at Pope Drive and a new tee intersection on Rollingwood Drive several hundred feet south of Pope Drive. The project's proposed site plan is illustrated in **Figure 2**.

VMT Analysis

The project's effect on vehicle miles traveled was evaluated for California Environmental Quality Act (CEQA) purposes based on guidelines from the City of Vallejo's *CEQA Transportation Impact Analysis Guidelines* (July 2020). Consistent with the methodology, thresholds, and criteria of the City's guidelines, the project is not expected to have a VMT-related transportation impact.

LOS Analysis

With the passage of Senate Bill 743 (SB 743) level of service analysis is no longer required (or allowed) within CEQA. However, to ensure consistency with the City's General Plan and published guidelines, the project's effect on intersection operations was evaluated at six study intersections. Under Opening Year and Cumulative conditions, the project was not found to degrade traffic operations below the City's level of service policies at any of the study intersections.

Site Plan Review

A detailed site plan review was conducted, and recommendations were identified to improve site access and circulation. Significant adverse impacts relative to hazards, emergency vehicle access, bicycles, pedestrians, and transit facilities were not identified. It is recommended that the project install high visibility crosswalks on all four legs of its northern driveway intersection with Rollingwood Drive at Pope Drive.



1. Introduction

This report documents the transportation impact analysis prepared for the proposed Rollingwood Residential development project located in the City of Vallejo, California. The TIA includes level of service analysis, a vehicle miles traveled assessment, and site plan review and recommendations. The study has been prepared in accordance with the *City of Vallejo Traffic Impact Analysis/Study Guidelines* (Public Works Department) guidelines and methodologies.

1.1 Purpose

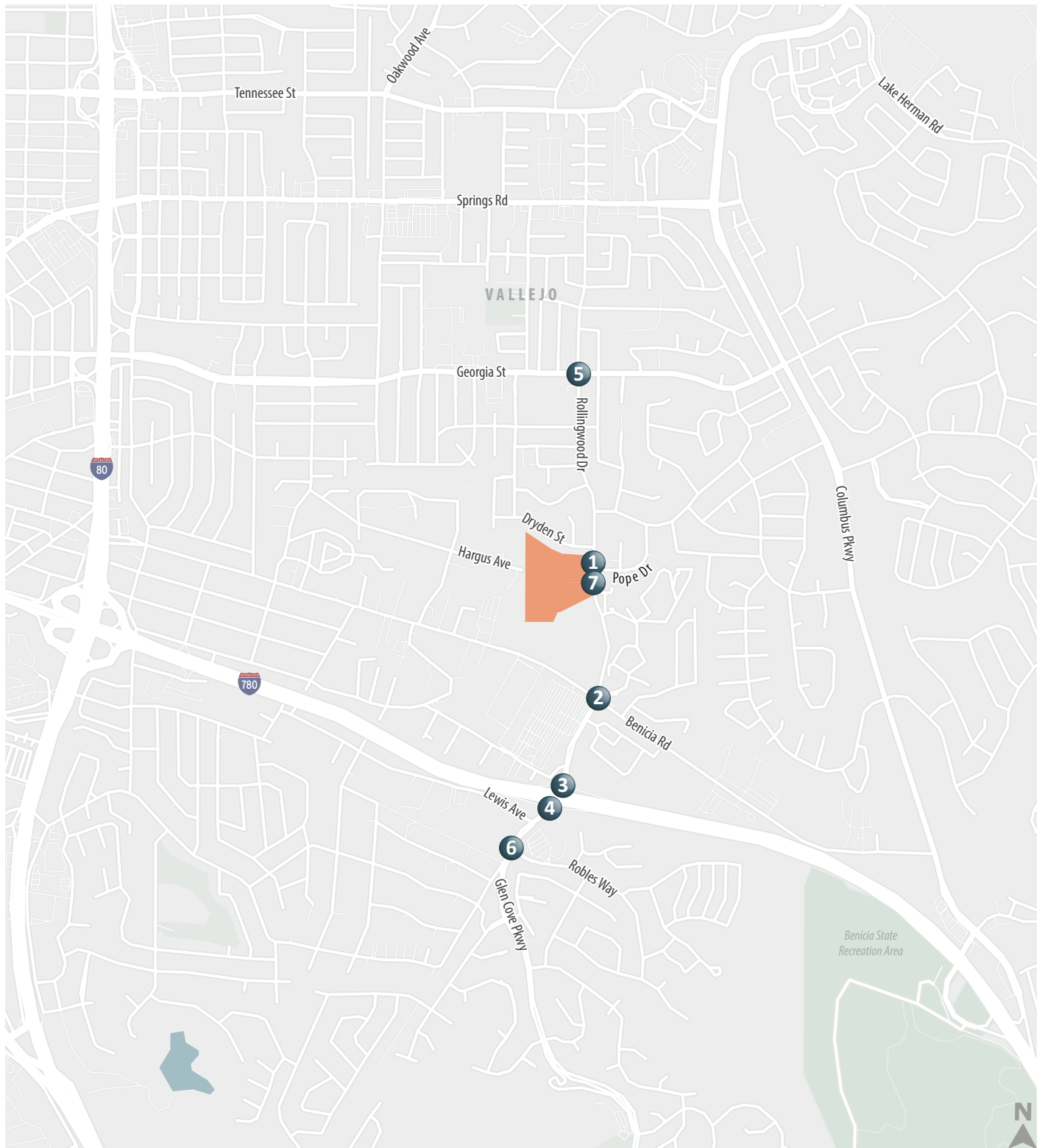
The purpose of this document is to summarize the potential effects of the project on the local transportation network. The California Environmental Quality Act (CEQA) Guidelines were updated in 2020 per Senate Bill 743 to require the use of VMT to evaluate a project's environmental effect on the transportation system. The passage of SB 743 eliminated automobile delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining a project's impacts to the transportation system. However, lead agencies may elect to utilize LOS for informational purposes or non-CEQA analysis.

The VMT analysis was prepared based on the City of Vallejo's *CEQA Transportation Impact Analysis Guidelines* (July 2020). The LOS analysis can also be used to support indirect CEQA impact analysis of traffic generation (air pollution, noise, stormwater runoff, etc.). The city will continue to address congestion, as necessary, but will not rely on traffic LOS analysis as a direct impact within the context of CEQA documentation. This report summarizes the project's effect on VMT for CEQA purposes and LOS analysis for informational/non-CEQA analysis to ensure General Plan consistency.

1.2 Project Description

The currently vacant project site is located at 201 Rollingwood Drive in Vallejo, California. **Figure 1** illustrates the site location. The proposed project would develop 130 single family detached homes west of Rollingwood Drive and south of Dryden Drive. Access to the project site would be provided via roadway connections to Rollingwood Drive at Pope Drive and a new tee intersection on Rollingwood Drive several hundred feet south of Pope Drive. The project's proposed site plan is illustrated in **Figure 2**.





■ Project Site
 # Study Intersection



Figure 1
Project Site Location and Study Intersections



Figure 2

Project Site Plan

2. Analysis Approach

This section describes the assumptions and methodologies utilized in the vehicle miles traveled and level of service analyses.

2.1 Vehicle Miles Traveled (VMT) Analysis

The California Environmental Quality Act Guidelines were updated in 2020 per Senate Bill 743 to remove level of service from CEQA analysis and require the use of vehicle miles traveled to evaluate a project's environmental impact on the transportation system. VMT measures the amount of driving generated by a project and thereby its effects on the environment from those miles traveled. SB 743 changes the focus of transportation impact analysis in CEQA from measuring *impacts on drivers* to measuring the *environmental impact of driving*.

The relevant CEQA Guidelines Appendix G Transportation Section checklist questions are as follows:

Would the project

- a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
- b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d. Result in inadequate emergency access?

Criterion B is the formal implementation of the SB 743 requirement to analyze VMT as part of the CEQA Transportation section. Under SB 743, congestion-related project effects (such as those measured by LOS or similar metrics) are deemed an unsuitable basis on which to determine a significant environmental effect. The relevant subsection of CEQA Guidelines section 15064.3(b) for the project reads as follows:

- (1) **Land Use Projects.** Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
- (4) **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household, or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the



project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

The City of Vallejo, exercising its discretion as lead agency, has the ability to select the methodology and CEQA significance criteria for use in the CEQA Transportation section. The City of Vallejo formally adopted locally applicable CEQA metrics, methodology, and significance criteria in July 2020, published in the City of Vallejo's *CEQA Transportation Impact Analysis Guidelines* (July 2020) and summarized in the section below.

2.1.1 Analysis Methodology

The City of Vallejo *CEQA Transportation Impact Analysis Guidelines* state that VMT analysis should be prepared using the Solano-Napa Activity Based Travel Demand Model (SNABM) available at the time of analysis. The guidelines were prepared using the latest model updated in September 2018. Models are frequently updated over time to reflect new information, and the use of the latest available models in the CEQA analysis of a project is encouraged as CEQA analyses should use the latest and best data available (*Cleveland National Forest Foundation vs. San Diego Associations of Governments*, 2017).

2.1.1.1 VMT Screening Methodology

The City of Vallejo's *CEQA Transportation Impact Analysis Guidelines* (July 2020) provide for a three step VMT screening process, as follows:

Step 1: Transit Priority Area (TPA) Screening

Projects located within a TPA¹ may be presumed to have a less than significant impact absent substantial evidence to the contrary. This presumption may **NOT** be appropriate if the project:

1. Has a Floor Area Ratio (FAR) of less than 0.75;
2. Includes more parking for use by residents, customers, or employees of the project than required by the City (if the City requires the project to supply parking);
3. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the City, with input from the Metropolitan Transportation Commission); or
4. Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

Step 2: Low VMT Area Screening

Residential and office projects located within a low-VMT generating area of the city (i.e., lower than citywide average levels, based on the significance thresholds in this document) may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-

¹ A TPA is defined as a half mile area around an existing major transit stop or an existing stop along a high quality transit corridor.



related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low-VMT area.

For low VMT area screening to be satisfied, the analyst must verify that the project land uses would not alter the existing built environment in such a way as to increase the rate or length of vehicle trips (e.g. the proposed project is consistent with existing land use in the area, the project would be expected to contribute VMT consistent with existing land use in the area, and the project would not significantly alter travel patterns in the area).

Step 3: Project Type Screening

The *Technical Advisory* states that local-serving retail projects less than 50,000 square feet may be presumed to have a less than significant impact absent substantial evidence to the contrary. Local-serving retail generally improves the convenience of shopping and other activities close to home and has the effect of reducing vehicle travel.

The following uses can also be presumed to have a less than significant impact absent substantial evidence to the contrary, as their uses are local serving in nature; however, note that it is recommended that as much substantial evidence as possible be provided for the local-serving nature of a given project:

- Local-serving K-12 public schools
- Local parks
- Day care centers
- Local-serving retail uses less than 50,000 square feet, including:
 - Gas stations
 - Banks
 - Restaurants
 - Shopping centers
- Local-serving hotels (e.g. non-destination hotels)
- Student housing projects on or adjacent to college campuses
- Local-serving assembly uses (places of worship, community organizations)
- Community institutions (public libraries, fire stations, local government facilities)
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
- Affordable or supportive housing
- Assisted living facilities
- Senior housing (as defined by HUD)
- Projects generating less than 110 daily vehicle trips

Any project that uses the designation of “local-serving” should be able to demonstrate that its users (employees, customers, visitors) would come primarily from within the city limits. The project would therefore not generate new “demand” for the project land uses, but would meet at existing demand that would shorten the distance existing residents, employees, customers, or visitors would need to travel.



Projects not screened through the steps above should complete a VMT analysis using the SNABM travel demand model to determine if they have a significant VMT impact.

2.1.1.2 VMT Analysis Methodology

Projects not screened through the three steps in **Section 2.1.1.1** should complete a VMT analysis using the latest Solano-Napa Activity Based Travel Demand model available. VMT calculations should be prepared for the following scenarios:

- **Baseline Conditions:** Project-generated VMT metrics from travel model estimates for the baseline condition based on the Solano-Napa Activity Based Travel Demand model without the Project.
- **Baseline Plus Project:** Project-generated VMT metrics from travel model estimates for the baseline condition based on the Solano-Napa Activity Based Travel Demand model with the Project added to the transportation analysis zone.
- **Cumulative No Project:** Project effect on VMT metrics from travel model estimates for the Future year 2040 condition based on the Solano-Napa Activity Based Travel Demand model without the Project.
- **Cumulative Plus Project:** Project effect on VMT metrics from travel model estimates for the Future year 2040 condition based on the Solano-Napa Activity Based Travel Demand model with the Project added to the transportation analysis zone.

2.1.2 Thresholds of Significance

Impacts are identified based on a project's VMT compared to a percentage of a baseline value of VMT. The model VMT metric estimates are key in setting baseline values to be used in CEQA thresholds. It is noted, however, that the "base year" thresholds rely on a rolling baseline—that is, the base year baseline metric value should be reconsidered on a project-by-project basis when each project's Notice of Preparation is released.

The thresholds in the City of Vallejo's *CEQA Transportation Impact Analysis Guidelines* are stratified by project type and include the following thresholds for use in CEQA VMT analyses:

A project would result in a significant impact if:

- **Threshold 1: Project-Generated VMT (Residential and Office/Industrial Projects) – Baseline:** Project-generated Residential Tour VMT per resident (for residential projects), Home-Based-Work Tour VMT per employee (for office/industrial projects) or Total VMT per service population (for mixed-use projects) is no higher than the baseline citywide Residential Tour VMT per resident, Home-Based-Work Tour VMT per employee, or Total VMT per service population.
- **Threshold 2: Project Generated VMT (Residential and Office/Industrial Projects) – Cumulative:** Project-generated Residential Tour VMT per resident (for residential projects), Home-Based-Work Tour VMT per employee (for office/industrial projects), or Total VMT per service population (for mixed-use projects) is no higher than the cumulative citywide Residential Tour VMT per resident, Home-Based-Work Tour VMT per employee, or Total VMT per service



population. This threshold does not apply if it can be demonstrated that VMT rates are declining at the time of the analysis.

- **Threshold 3: Project's Effect on VMT (Residential and Office/Industrial Projects) – Cumulative:** The Project reduces or has no effect on the citywide total VMT under cumulative conditions.
- **Threshold 4: Project-Generated VMT and Project's Effect on VMT (Other Project Types):** VMT thresholds for other project types (for example, institutional, destination hotel, or cultural projects) would be developed using considerations unique to the individual project. The thresholds will incorporate the principles of Thresholds 1 – 3, i.e., projects that are not expected to generate VMT above a relevant baseline level and/or are not expected to increase VMT in the cumulative condition would be considered to have a less than significant impact with respect to VMT.

As a residential project, the relevant threshold is total daily residential VMT per resident measured against the citywide average, in both the baseline and cumulative scenarios.

Projects that result in a significant impact under Baseline conditions or Cumulative conditions are required to identify mitigation measures. Projects that are unable to mitigate the impact to a less than significant impact with implementation of mitigation measures would result in a significant VMT impact.

2.2 Level of Service (LOS) Analysis

2.2.1 Study Locations

Intersections are generally the critical capacity-controlling elements of suburban roadway networks. Therefore, the operations of critical intersections surrounding the project site are used as indicators of the adequacy of the vehicular circulation system. The following intersections, also shown on **Figure 1**, were selected based on the project's trip assignment as those most likely to be affected by the project:

1. Rollingwood Drive/Pope Drive
2. Rollingwood Drive/Benicia Road
3. Glen Cove Road/I-780 Westbound on and off Ramps
4. Glen Cove Road/I-780 Eastbound on and off Ramps
5. Rollingwood Drive/Georgia Street
6. Glen Cove Parkway/Robles Way

2.2.2 Data Collection

Weekday AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak period intersection turning movement counts (vehicles, pedestrians, and bicycles) were collected in November 2023 and October 2024 on clear days, when schools were in session. **Appendix A** includes a summary of the count data.

Signal timing data was collected from the City of Vallejo and Caltrans.



2.2.3 Study Scenarios

The following scenarios were evaluated for the weekday AM and PM peak hours:

- Existing – Existing conditions based on traffic counts at the study locations.
- Project Opening Year – Existing traffic counts plus traffic from approved projects expected to be developed prior to the opening of the project.
- Project Opening Year Plus Project – Opening year conditions plus traffic expected to be generated by the Project.
- Cumulative – Forecasts for the cumulative scenario are based on traffic growth trends as described in the Vallejo General Plan and supplemented by a check of traffic forecasts for the study area in the regional travel demand model.
- Cumulative Plus Project – Cumulative forecasts plus traffic expected to be generated by the Project.

2.2.4 LOS Analysis Methodology

Synchro software, using methodologies from the *Highway Capacity Manual*, was used to perform this analysis. The analysis results are summarized in vehicle delay in seconds and LOS. LOS is a qualitative description of operations ranging from LOS A, when the roadway facility has excess capacity and vehicles experience little or no delay, to LOS F, where the volume of vehicles exceeds the capacity, resulting in long queues and excessive delays. The study intersections' LOS were established based on traffic analysis using the Transportation Research Board (TRB) method in the *Highway Capacity Manual*, 6th Edition.

For signalized intersections, LOS is based on the average delay experienced by all vehicles passing through the intersection. This methodology uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the delay per vehicle. The delay per vehicle is a portion of the total delay attributed to the signal operations and includes initial deceleration, queue move up time, time stopped, and acceleration.

At unsignalized intersections, operations are defined by the average control delay per vehicle (measured in seconds) for each stop-controlled movement. This incorporates delays associated with deceleration, acceleration, stopping, and moving up in the queue. For all-way stop-controlled intersections, the LOS is represented by the average control delay for the whole intersection. For side-street stop-controlled intersections, the average delay and worst-case approach delay, and associated LOS are reported in this study.

The average control delays and LOS designations for signalized and unsignalized intersections are summarized in **Table 1**.



Table 1: Intersection LOS and Average Control Delay (seconds/vehicle)

LOS	Signalized	Unsignalized
A	≤ 10.0	≤ 10.0
B	10.1 to 20.0	10.0 – 15.0
C	20.1 to 35.0	15.1 – 25.0
D	35.1 to 55.0	25.1 – 35.0
E	55.1 to 80.0	35.1 – 50.0
F	> 80.0	> 50.0

Source: *Highway Capacity Manual*, 6th Edition.

The City of Vallejo’s General Plan and Traffic Impact Analysis/Study Guidelines were referenced to determine the criteria against which effects should be evaluated as part of this analysis, as described below:

Signalized Intersections – Project-related operational effects on the signalized study intersections in the City of Vallejo do not meet the City’s LOS guidelines if:

1. Project-related traffic causes the level of service rating to deteriorate from LOS D (55 seconds) or better to LOS E or F.
2. Project-related traffic increases the volume-to-capacity ratio by more than 0.0100 for intersections already operating at an unacceptable LOS without the project.

Unsignalized Intersections – Project-related operational effects on unsignalized intersections do not meet the City’s LOS guidelines if:

1. Project generated traffic causes the worst-case movement (or average of all movements for all-way stop-controlled intersections) to deteriorate from LOS D or better to LOS E or F.
2. Project-related traffic increases the volume-to-capacity ratio by more than 0.0100 for intersections already operating at an unacceptable LOS without the project.



3. Existing Conditions

This section describes the existing multimodal transportation system in the study area, including the street system, public transit service, and bicycle and pedestrian facilities. Existing operating conditions at study intersections are also summarized in this section.

3.1 Existing Transportation System

3.1.1 Vehicle Roadway System

Direct vehicular access to the project site is provided from Rollingwood Drive. Local vehicular access to the study area is provided via Georgia Street, Benicia Road, Glen Cove Parkway, and Robles Way. Regional access to the area is provided via Interstate 80 (I-80) and Interstate 780 (I-780). These facilities are described below.

3.1.1.1 Local Access

Rollingwood Drive is a north-south two-lane roadway that extends from Benicia Road in the south to Tennessee Street to the north. Access to the project site would be provided via two intersections/driveways on Rollingwood Drive. There is a posted speed limit of 25 miles per hour on the facility. No sidewalks or on-street parking are currently provided in the vicinity of the project site.

Georgia Street is an east-west two-lane roadway that extends from Columbus Parkway in the east to Mare Island Way in the west. The posted speed limit is 25 miles per hour and sidewalks are provided on both sides of the street, and parking is generally allowed along the roadway.

Benicia Road is an east-west two-lane roadway that extends from Columbus Parkway to the east and Solano Avenue in the west. There is a posted speed limit of 25 miles per hour. Sidewalks and on-street parking are generally not provided in the study area.

Glen Cove Road/Parkway is a north-south two-lane roadway that extends from Benicia Road to the north and Bayside Terrace to the south. The posted speed limit is 35 miles per hour with sidewalks on both sides of the street. Glen Cove Parkway provides project access to the I-780 east and westbound on and off ramps.

3.1.1.2 Regional Access

Interstate 80 (I-80) is a north-south freeway extending from San Francisco to the California-Nevada state line via Vallejo, Fairfield, and Sacramento. The facility connects the project site to the San Francisco Bay Area, Napa Valley, and the Sacramento metropolitan area. Connections to the study area is available through the Georgia Street interchange.

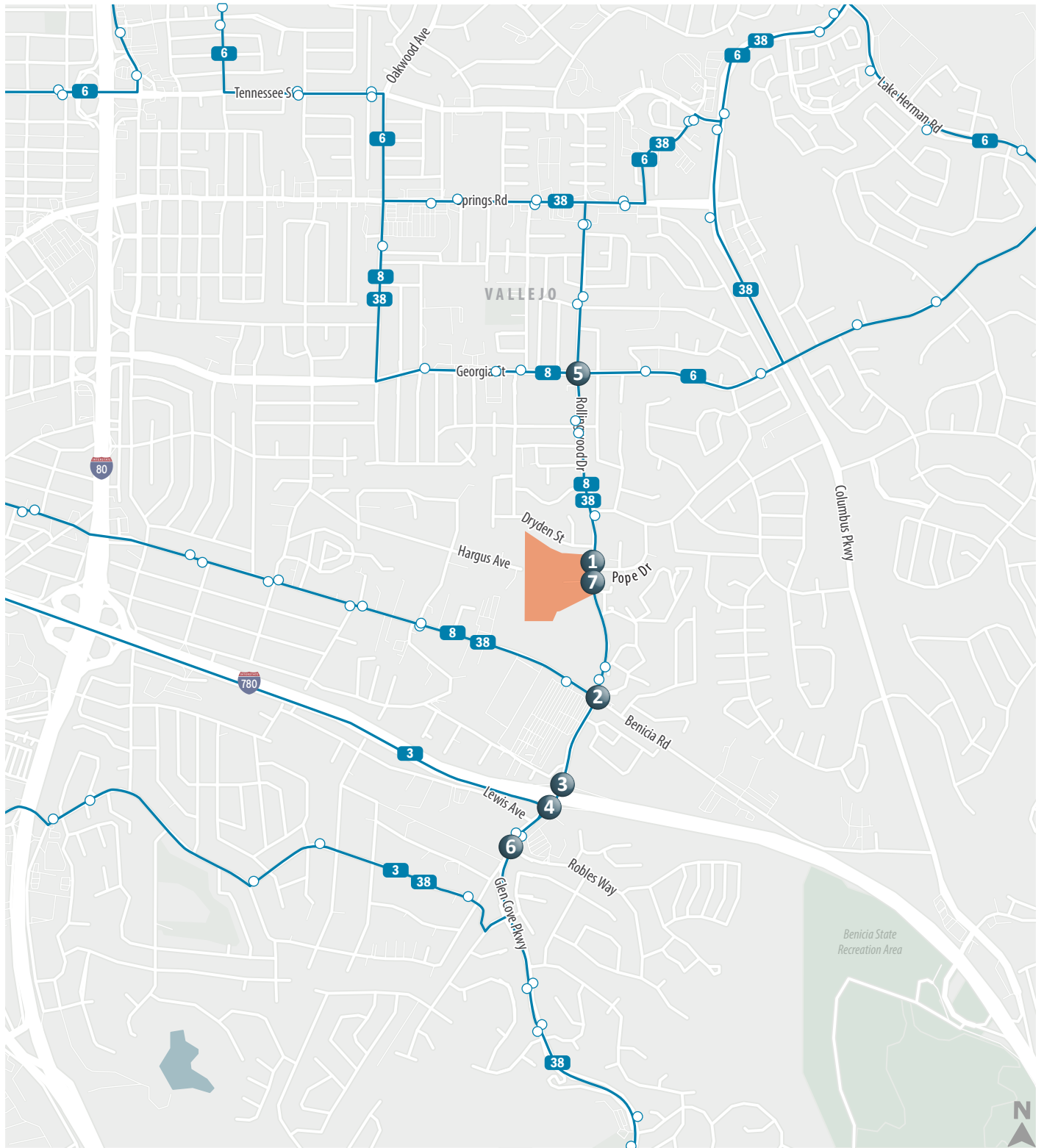


Interstate 780 (I-780) is an east-west, four-lane freeway extending from Vallejo to Benicia. The facility connects the project site to the outer east San Francisco Bay region with further connections to the Central Valley. Connections to the study area are available through the Glen Cove Parkway interchange.

3.1.2 Transit Services and Connectivity

Transit service is provided in the study area by Solano County Transit (SolTrans), which provides regional bus service. SolTrans routes 3, 6 and 38 provide bus service along streets within the project area, specifically along Rollingwood Drive, Georgia Street, and Benicia Road. The existing transit routes and stops in the study area are shown in **Figure 3**.





Project Site

#
 Soltrans Route

○
 Bus Stop



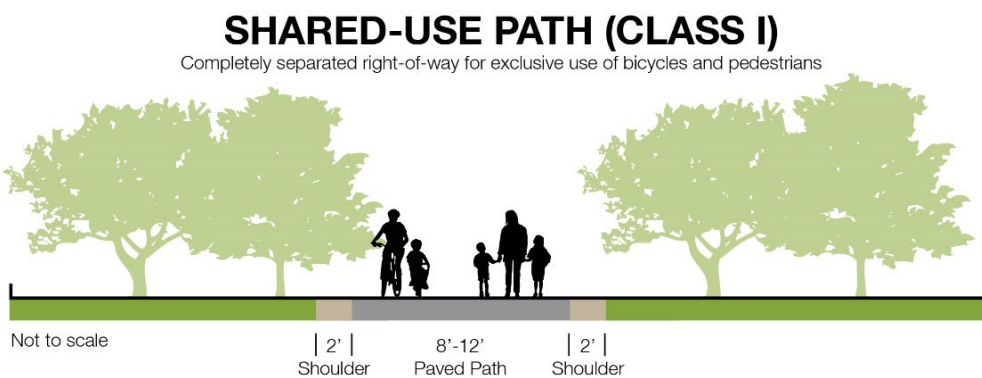
Figure 3

Existing Transit Facilities

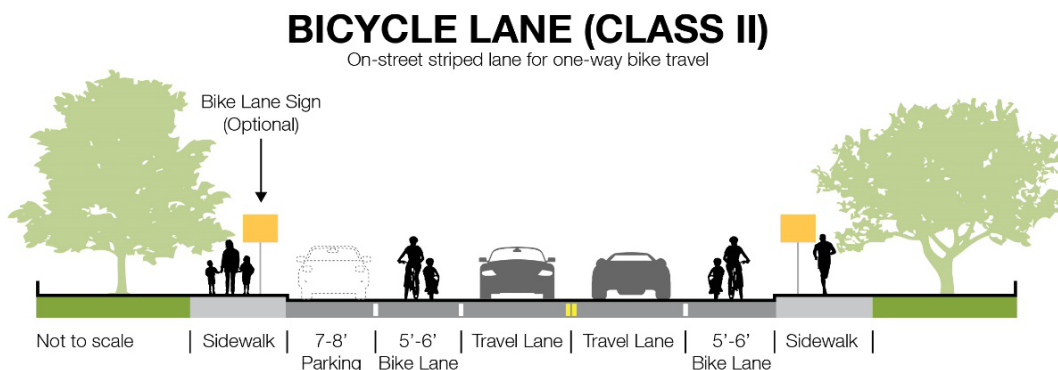
3.1.3 Bicycle Facilities

Bikeway planning and design in California typically relies on guidelines and design standards established by California Department of Transportation (Caltrans) in the *Highway Design Manual* (Chapter 1000: Bikeway Planning and Design). Caltrans provides examples for four distinct types of bikeway facilities, as described below and shown in the accompanying figures.

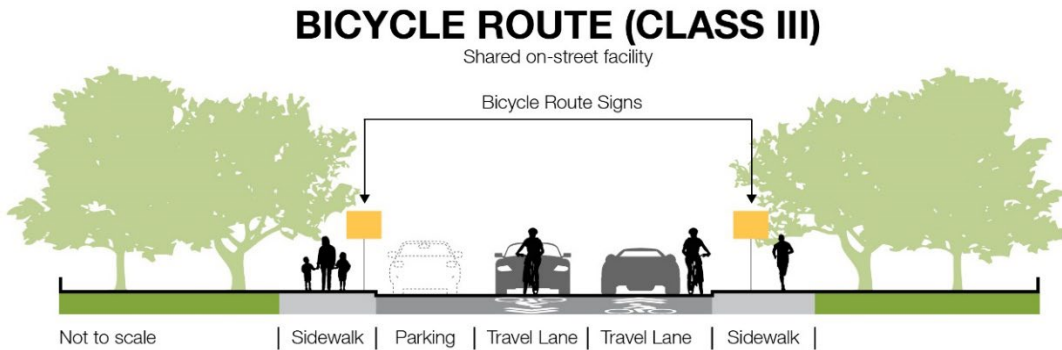
Class I Bikeways (Shared-Use Paths) provide separate right-of-way and are designated for the exclusive use of bicycles and pedestrians, with vehicle and pedestrian cross-flow minimized. In general, bike paths serve corridors where on-street facilities are not feasible or where sufficient right-of-way exists to allow them to be constructed.



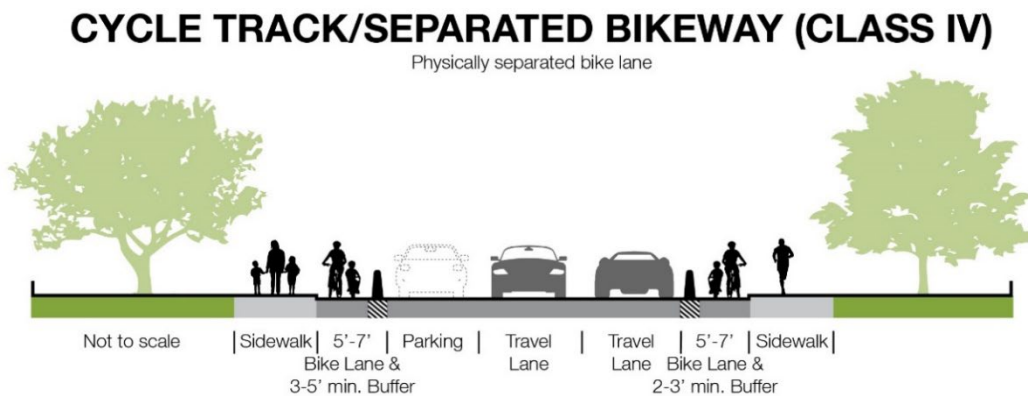
Class II Bikeways (Bicycle Lanes) are dedicated lanes for bicyclists generally adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage. Bicycle lanes are typically five feet wide. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.



Class III Bikeways (Bicycle Routes) are designated by signs or pavement markings for shared use with pedestrians or motor vehicles but have no separated bike right-of-way or lane striping. Bike routes serve either to a) provide a connection to other bicycle facilities where dedicated facilities are infeasible, or b) designate preferred routes through high-demand corridors.

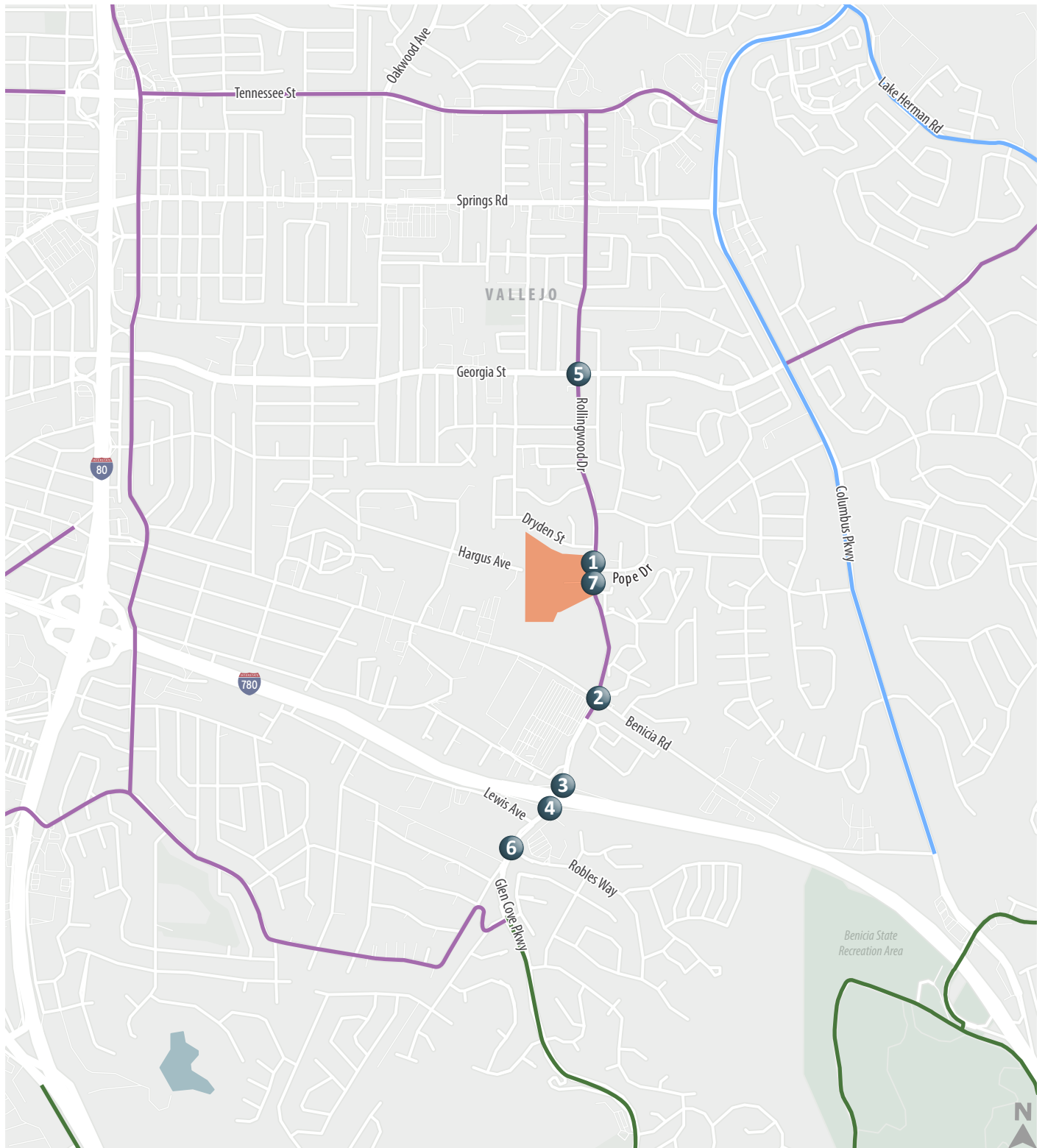


Class IV Bikeways (cycle tracks or "separated" bikeways) provide a right-of-way designated exclusively for bicycle travel within a roadway and are protected from other vehicle traffic by physical barriers including, but not limited to, grade separation, flexible posts, inflexible vertical barriers such as raised curbs, or parked cars.



Existing bicycle facilities in the study area are displayed on **Figure 4**. In the immediate vicinity of the project site there is a Class III bicycle route extending from just south of Benicia Road to Tennessee Street.





- Project Site
- Existing**
- Class 1 Bike Path
 - Class 2 Bike Lane
 - Class 3 Bike Route
 - Class 4 Separated Bikeway



Figure 4

Existing Bicycle Facilities

3.1.4 Pedestrian Facilities

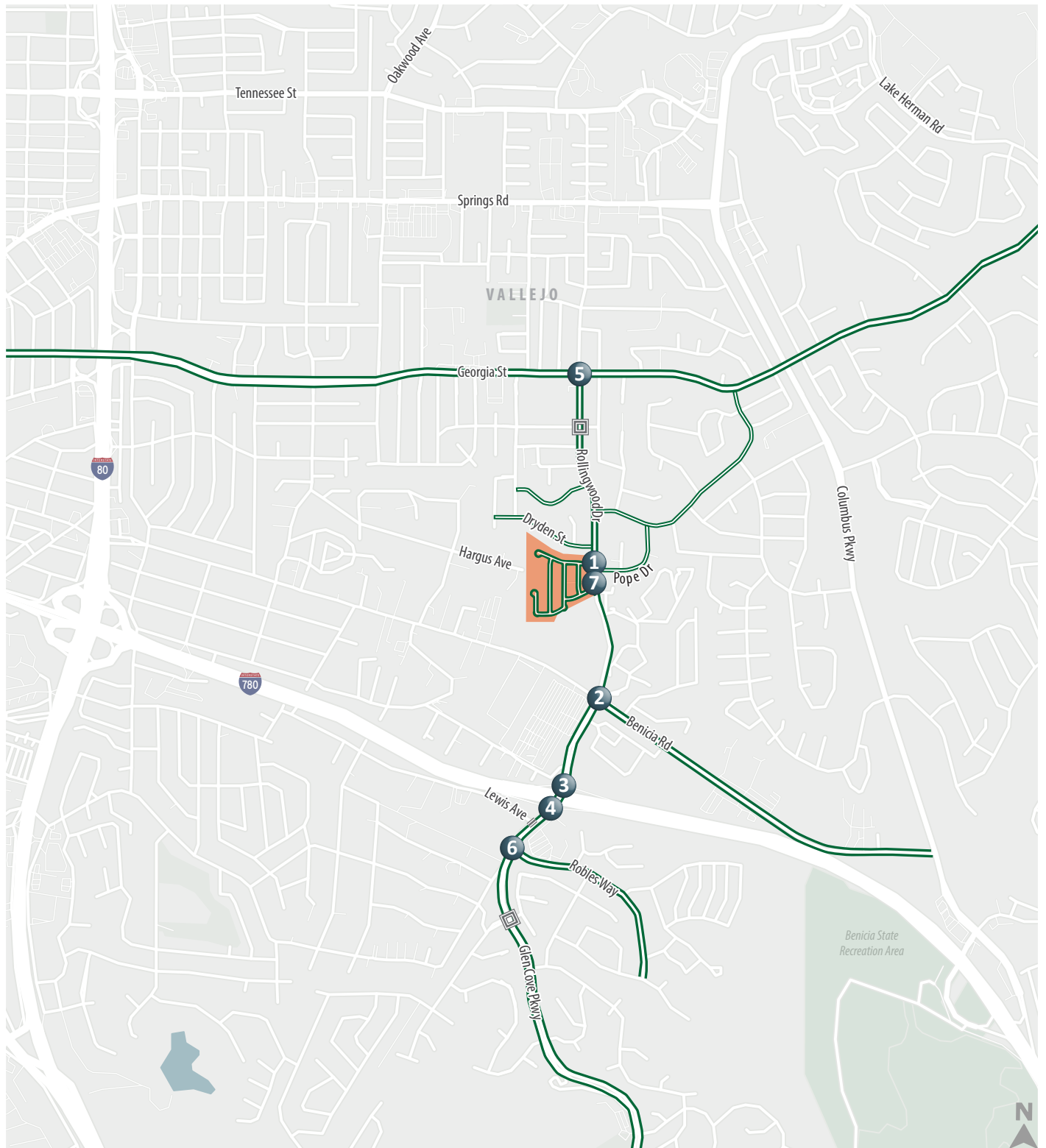
Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. The pedestrian environment was evaluated on the connecting roadways that directly serve the project site and adjacent roadways that connect to transit stops and/or nearby destinations in the greater study area.

Pedestrian connectivity in the vicinity of the project site is provided by a network of sidewalks that serve the Georgia Street, Rollingwood Drive, and Robles Way corridors. The project proposes to create internal sidewalks that will extend onto Rollingwood Drive and connect to the existing sidewalks on Dryden Drive to the north. Existing and proposed pedestrian facilities are shown in **Figure 5**.

3.2 Intersection Operations

Existing intersection lane configurations and peak hour turning movement volumes presented on **Figure 6**, were used to calculate intersection levels of service during the weekday AM and PM peak hours. For each study intersection, the 60-minute period with the highest traffic volumes during each two-hour count period was identified as the respective peak hour of traffic. **Table 2** presents the existing LOS analysis results using the analysis methodology described in the chapter above. Detailed calculation sheets are provided in **Appendix B**.



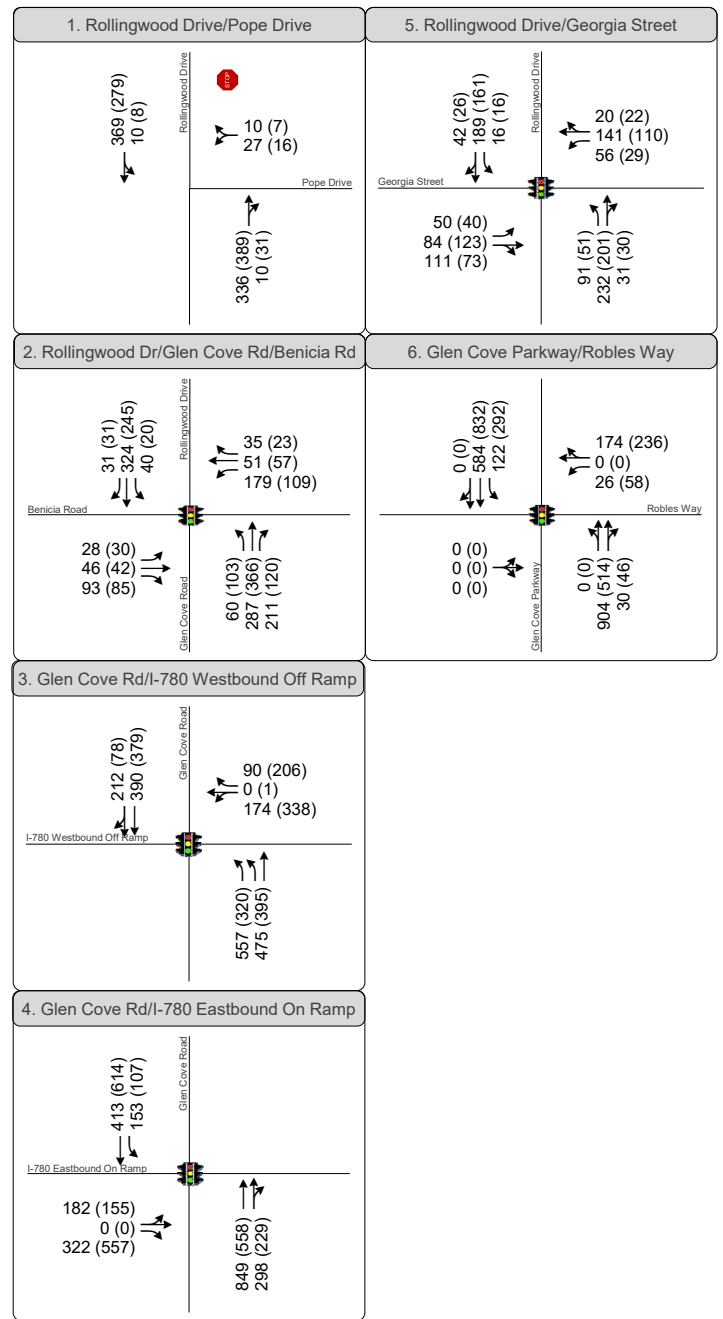
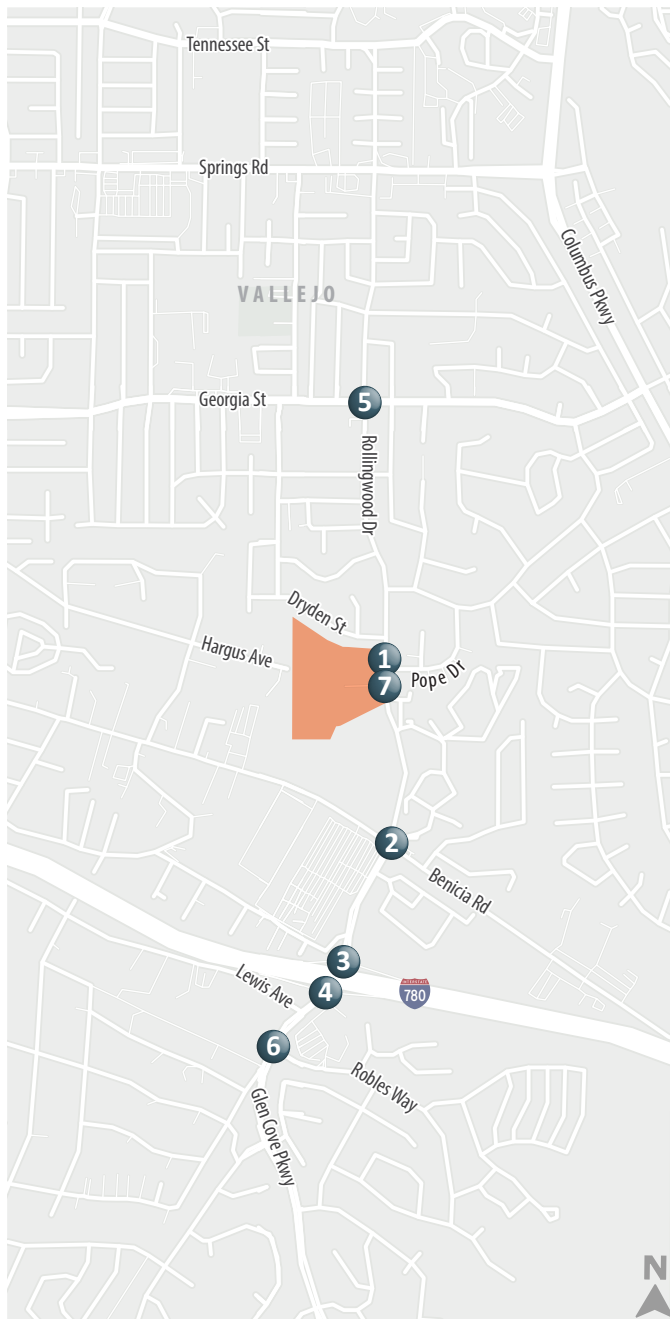


Project Site
 Sidewalk
 Crosswalk



Figure 5

Existing and Proposed Pedestrian Facilities



XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign

Project Site Study Intersection



Figure 6
Existing Conditions Peak Hour
Intersection Traffic Volumes, Lane Configurations and Traffic Controls

Table 2: Existing Conditions LOS Results Summary

Intersection	Control ¹	Peak Period ²	LOS Standard	Existing	
				Delay ³	LOS ⁴
1. Rollingwood Drive & Pope Drive	SSSC	AM PM	D	0.9 (17.5)	A (C)
				0.5 (14.6)	A (B)
2. Rollingwood Drive & Benicia Road	Signal	AM PM	D	20.7	C
				16.1	B
3. Glen Cove Road & I-780 Westbound on and off ramps	Signal	AM PM	D	28.9	C
				33.7	C
4. Glen Cove Road & I-780 Eastbound on and off ramps	Signal	AM PM	D	19.4	B
				11.7	B
5. Rollingwood Drive & Georgia Street	AWSC	AM PM	D	18.9	B
				15.2	B
6. Glen Cove Parkway & Robles Way	Signal	AM PM	D	14.7	B
				12.2	B

Notes:

1. Traffic control type (SSSC = Side-Street Stop-Controlled; Signal = Signalized).
2. AM = Weekday morning peak hour, PM = weekday evening peak hour.
3. Whole intersection average delay reported for signalized intersections. Side-street stop-controlled delay presented as Whole Intersection Average Delay (Worst Approach Delay). Delay calculated per HCM 6th Edition methodologies.
4. LOS designation per HCM 6th Edition.

Source: Fehr & Peers, April 2025.

Under Existing Conditions, all the study intersections operate at LOS C or better during the AM and PM peak hours. Level of service C is indicative of acceptable traffic conditions with low to moderate levels of vehicular delay.



4. Project Characteristics

This section describes the trip-making characteristics of the project. The amount of traffic associated with the project was estimated using a three-step process:

1. **Trip Generation** – The *amount* of vehicle traffic entering/exiting the project site was estimated.
2. **Trip Distribution** – The *direction* trips would use to approach and depart the site was projected.
3. **Trip Assignment** – Trips were then *assigned* to specific roadway segments and intersection turning movements.

4.1 Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates are created for the daily condition and for the peak one-hour periods during the morning and evening commute when traffic volumes on the adjacent streets are typically the highest. Project trip generation was estimated using rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11th Edition)*. The manual is a national reference and compendium of data on the trip generation characteristics of various land uses. **Table 3** presents the results of the trip generation analysis for the proposed project.

Table 3: Weekday Vehicle Trip Generation Estimates

Use	ITE Land Use Code	Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Single Family Residential Detached	210	130	1,226	23	68	91	80	47	122

Source: ITE *Trip Generation Manual*, 11th Edition, Fehr & Peers, 2025.

As illustrated in **Table 3**, the proposed project is expected to generate 1,226 daily, 91 morning peak hour and 122 evening peak hour trips on a typical weekday.



4.2 Trip Distribution and Assignment

Project trip distribution refers to the directions of approach and departure that vehicles would take to access and leave the site. Estimates of project trip distribution were developed based on existing travel patterns in the area, a select zone analysis using the Solano Napa Activity Based travel demand model, and the location of complementary land uses. The resulting trip distribution percentages are shown in **Figure 7**.

Using the trip distribution percentages documented in **Figure 7** and the trip generation results described in **Table 3**, project trips were assigned to the study intersections. **Figure 8** illustrates the resulting project trip assignment used in the subsequent traffic operations analysis.



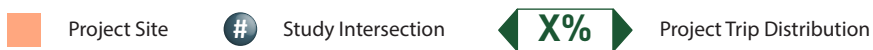
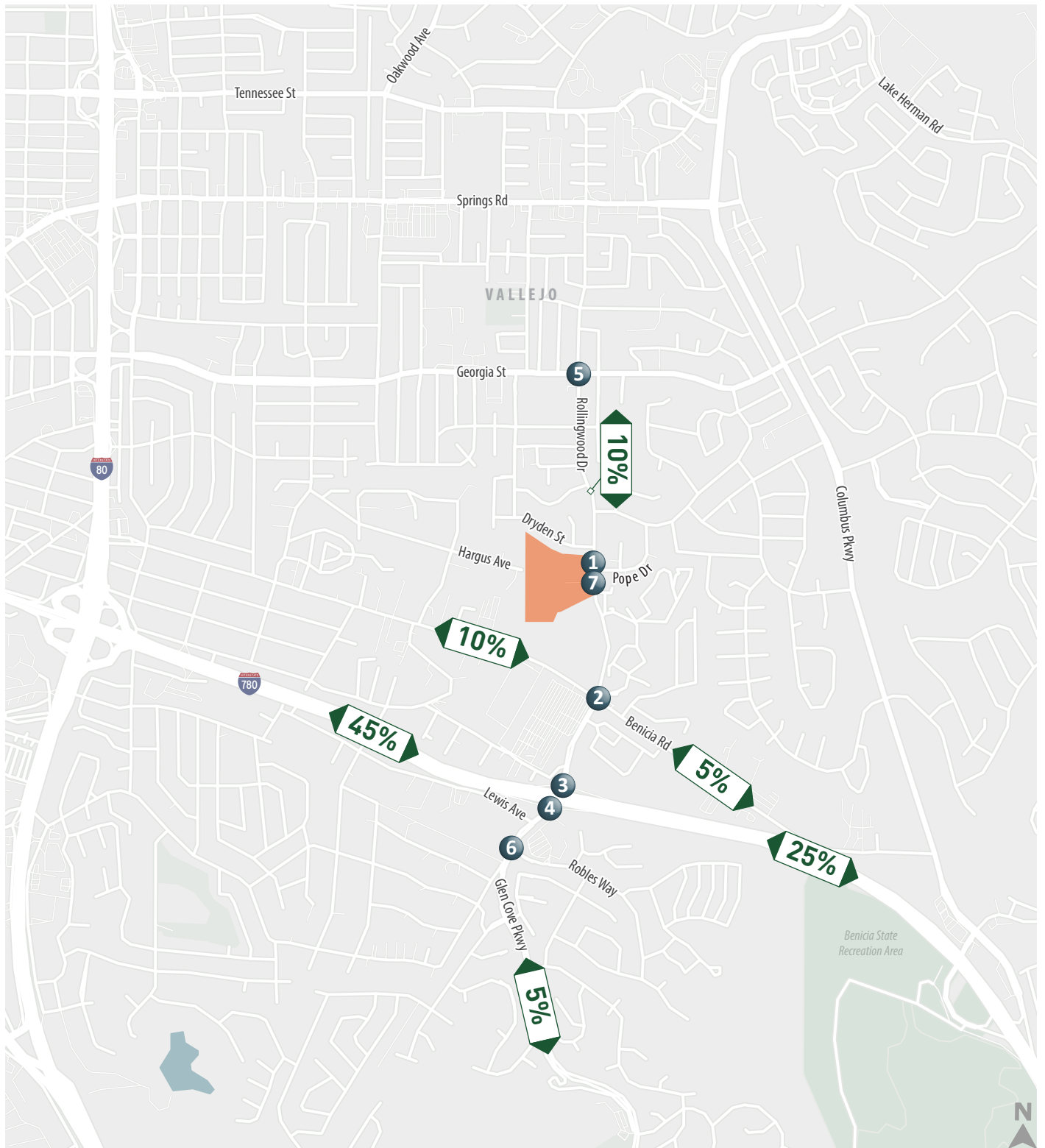
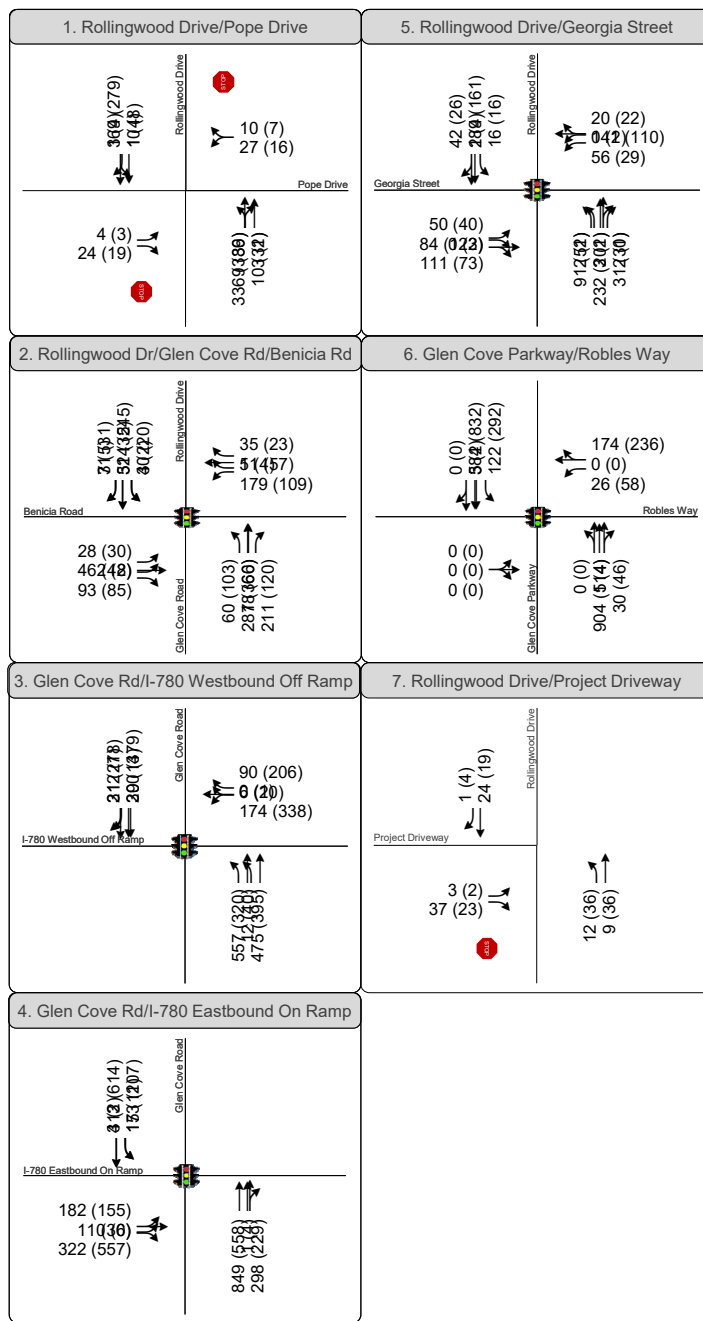
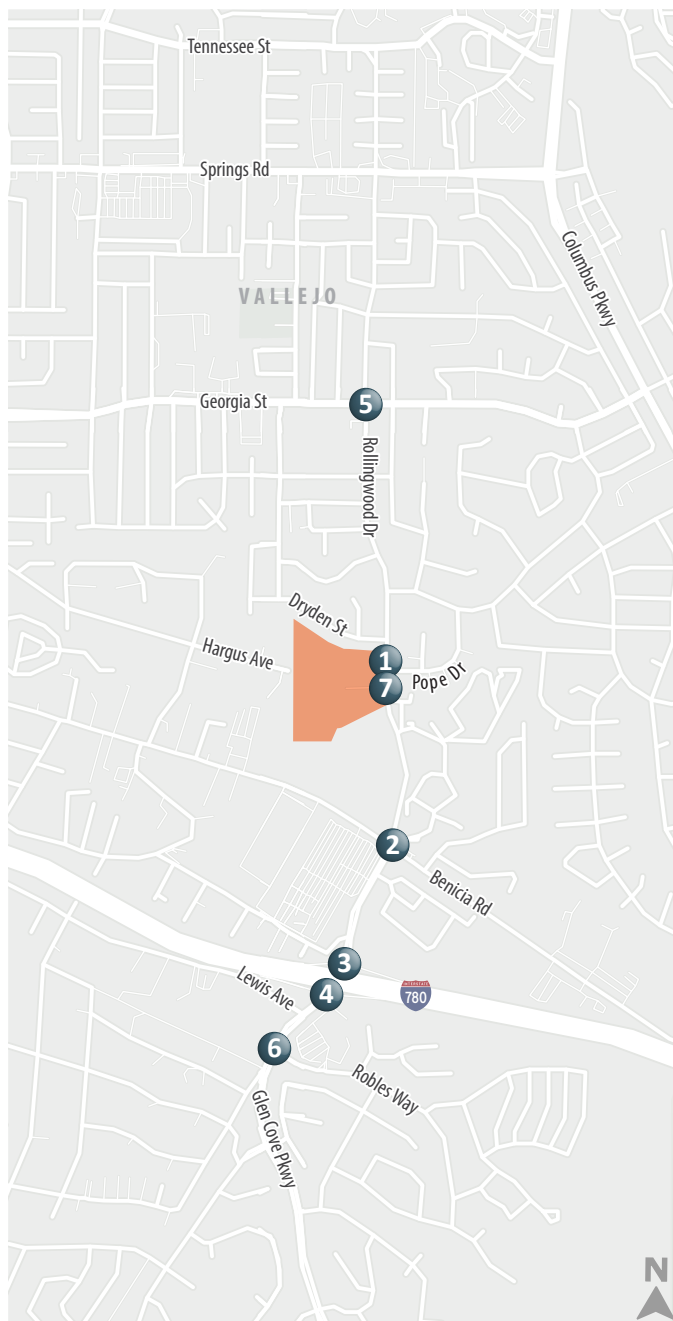


Figure 7

Project Trip Distribution



XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign

Project Site Study Intersection



Figure 8
Existing Conditions Peak Hour
Intersection Traffic Volumes, Lane Configuration and Traffic Controls

WC23-4020_X_Volumes

5. Vehicle Miles Traveled (VMT) Assessment

This section describes the evaluation of the project's potential impacts relative to VMT using the thresholds and criteria described in the City of Vallejo's *CEQA Transportation Impact Analysis Guidelines* (July 2020). Section 2 of this report details the relevant VMT screening criteria, methodologies, and thresholds.

5.1 VMT Screening Assessment

The City of Vallejo's *CEQA Transportation Impact Analysis Guidelines* (July 2020) provide for a three step VMT screening process, which is described in detail in Section 2.1.1.1 above. That screening process includes the following:

- Step 1 – Transit Priority Area (TPA) Screening – Projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary.
- Step 2 – Low VMT Area Screening – Residential and office projects located within a low-VMT generating area of the city may be presumed to have a less than significant impact absent substantial evidence to the contrary.
- Step 3 – Project Type Screening – Local-serving retail projects less than 50,000 square feet in size and other local-serving community uses may be presumed to have a less than significant impact absent substantial evidence to the contrary.

The project does not satisfy any of the established screening criteria related to VMT. As such, it cannot be presumed to have a less than significant impact relative to VMT and a detailed VMT assessment is required.

5.2 VMT Analysis

The Solano Napa Activity Based travel demand model was used to estimate average daily vehicle miles of travel for the proposed project. Per the city's guidelines, daily VMT per resident was used to evaluate the project's effects on VMT. **Table 4** presents the results of the VMT analysis conducted for the proposed project using SNABM and accounting for the project's increased density over and above that of the surrounding residential neighborhood.

As a residential project, the relevant threshold is total daily VMT per resident measured against the citywide average, in both the baseline and cumulative scenarios. The weekday daily average VMT per resident along with the project's VMT per resident are presented in **Table 4**.



Table 4: VMT Analysis Summary

Scenario	Daily Citywide Average VMT per Resident	Project Daily Residential VMT per Resident	Impact?
Baseline	24.5	22.6	No
Cumulative	24.3	22.6	No

Source: SNABM, Fehr & Peers, April 2025.

As summarized above, the project's daily VMT per resident is expected to be 22.6 during Baseline and Cumulative Conditions, which is below the daily citywide average per resident. Therefore, the project is expected to result in a ***less than significant*** relative to VMT.



6. Project Opening Year Traffic Conditions

This chapter discusses opening year traffic conditions with and without the addition of traffic generated by the project. The Project Opening Year conditions analysis considers approved projects within the study area that are expected to be constructed and occupied in the next three years. No roadway improvements or modifications were identified or assumed at the study intersections for the analysis of Project Opening Year conditions as none are currently proposed or under consideration.

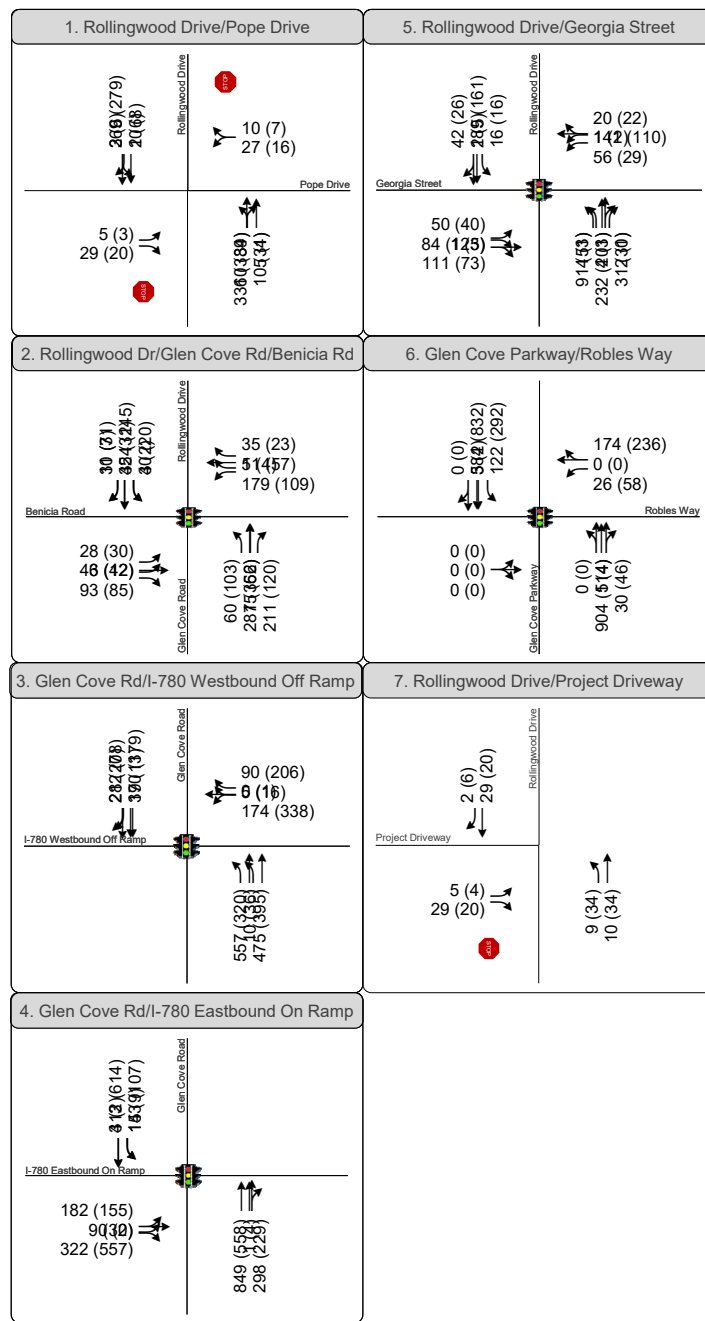
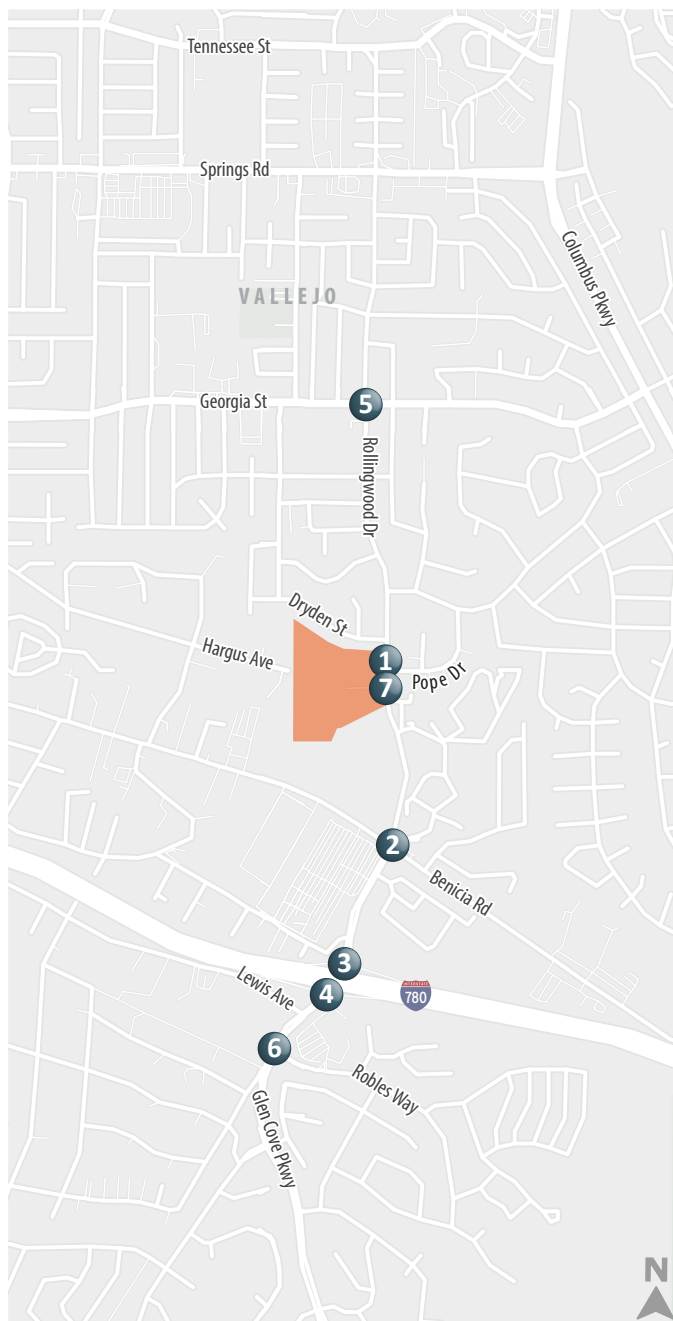
6.1 Project Opening Year Forecasts

No proposed developments in the immediate vicinity of the project expected to be constructed and occupied in the next three years were identified. However, to assess future near term potential growth with planned development in the City of Vallejo, several sources of data were reviewed, including the SNABM, and the traffic growth trends as described in Vallejo's General Plan. Traffic forecasts within the immediate study area were reviewed to ensure that known developments were adequately reflected in the forecasts. Minor adjustments were made to the forecasts to balance traffic volumes between closely spaced intersections in the study area. The resulting Project Opening Year forecasts are presented on **Figure 9**, which are representative of conditions over the next three years. The project volumes on **Figure 8** were added to the Project Opening Year traffic volumes to develop Project Opening Year Plus Project conditions, as presented on **Figure 10**.

6.2 Analysis of Project Opening Year Conditions

Project Opening Year without and with Project conditions were evaluated using methods described in Chapter 2. The analysis is summarized in **Table 5**, based on the traffic volumes and lane configurations on **Figure 9** and **Figure 10**. Detailed calculation sheets are provided in **Appendix B**.



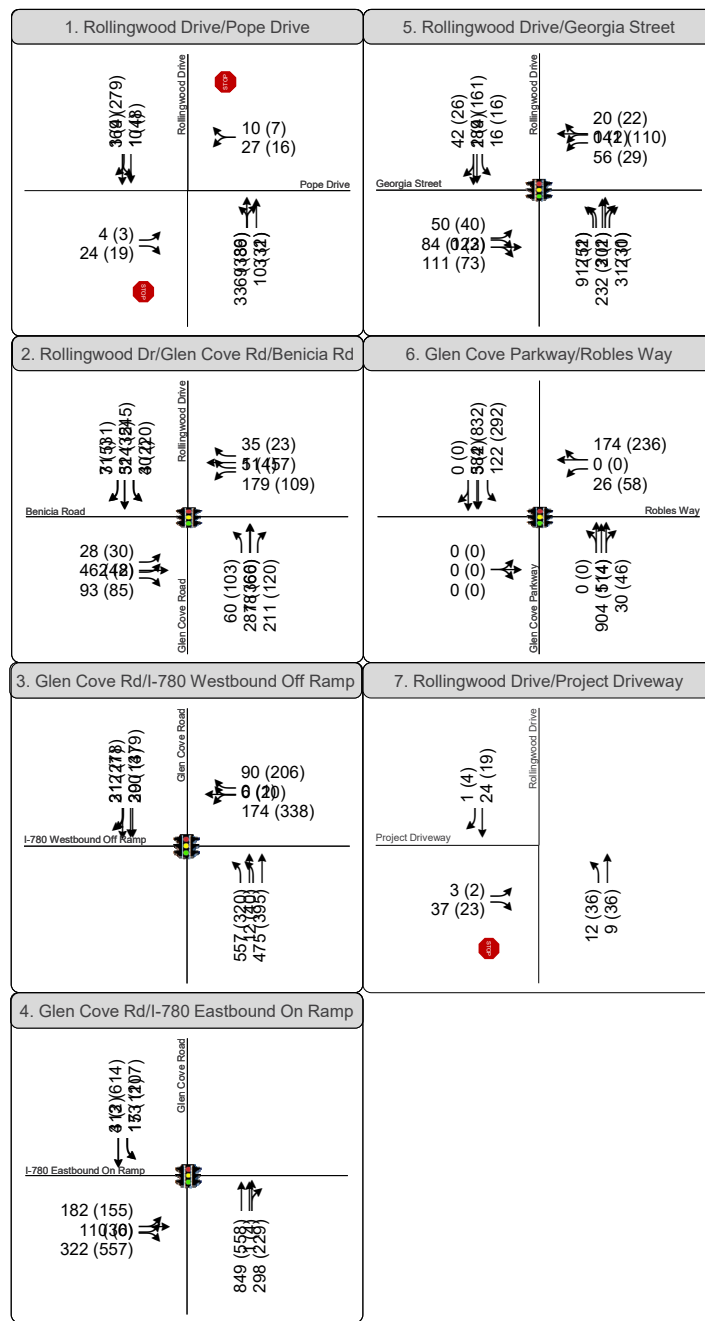
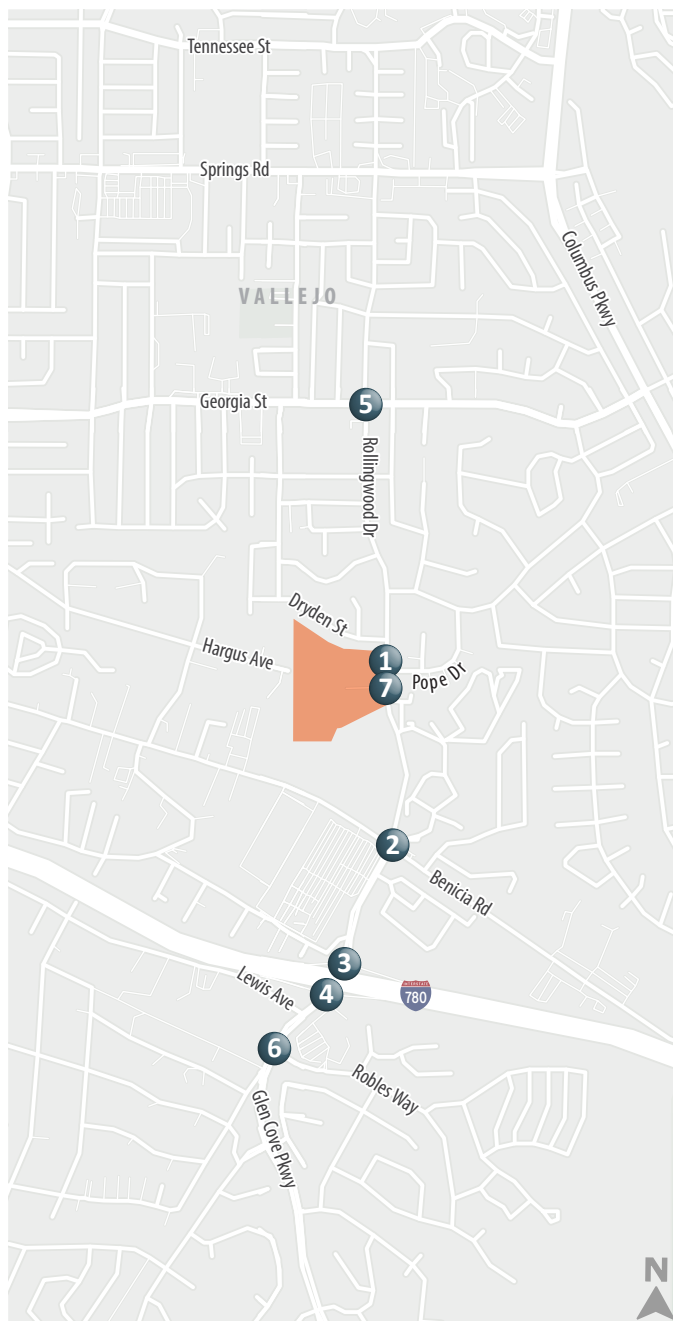


XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign

Project Site Study Intersection



Figure 8
Existing Conditions Peak Hour
Intersection Traffic Volumes, Lane Configuration, and Traffic Controls



XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign

Project Site Study Intersection



Figure 8
Existing Conditions Peak Hour
Intersection Traffic Volumes, Lane Configuration, and Traffic Controls

Table 5: Project Opening Year and Project Opening Year Plus Project Conditions LOS Results Summary

Intersection	Control ¹	Peak Period ²	LOS Standard	Opening Year No Project		Opening Year Plus Project	
				Delay ³	LOS ⁴	Delay ³	LOS ⁴
1. Rollingwood Drive & Pope Drive	SSSC	AM PM	D	1 (18.2)	A (C)	1.7 (23.3)	A (C)
				0.7 (15)	A (C)	1.4 (19)	A (C)
2. Rollingwood Drive & Benicia Road	Signal	AM PM	D	21.1	C	22.0	C
				16.2	B	16.6	B
3. Glen Cove Road & I-780 Westbound on and off ramps	Signal	AM PM	D	29.3	C	30.2	C
				33.5	C	33.5	C
4. Glen Cove Road & I-780 Eastbound on and off ramps	Signal	AM PM	D	20.2	C	22.0	C
				11.8	B	13.7	B
5. Rollingwood Drive & Georgia Street	AWSC	AM PM	D	19.1	B	19.2	B
				15.5	B	15.6	B
6. Glen Cove Parkway & Robles Way	Signal	AM PM	D	15	B	15	B
				12.4	B	12.5	B
7. Rollingwood Drive & Southern Project Driveway	SSSC	AM PM	D	n/a	n/a	0.7 (12.1)	A (B)
				n/a	n/a	0.7 (11.2)	A (B)

1. Traffic control type (SSSC = Side-Street Stop-Controlled; Signal = Signalized).
2. AM = Weekday morning peak hour, PM = weekday evening peak hour.
3. Whole intersection average delay reported for signalized intersections. Side-street stop-controlled delay presented as Whole Intersection Average Delay (Worst Approach Delay). Delay calculated per HCM 6th Edition methodologies.
4. LOS designation per HCM 6th Edition.

Source: Fehr & Peers, April 2025.

As shown in **Table 5**, all study intersections are expected to operate acceptably under the Opening Year and Opening Year Plus Project Conditions.



7. Cumulative Traffic Conditions

This chapter discusses Cumulative traffic conditions both without and with traffic forecast to be generated by the project. The future conditions analysis considers development within the City of Vallejo as described in the General Plan.

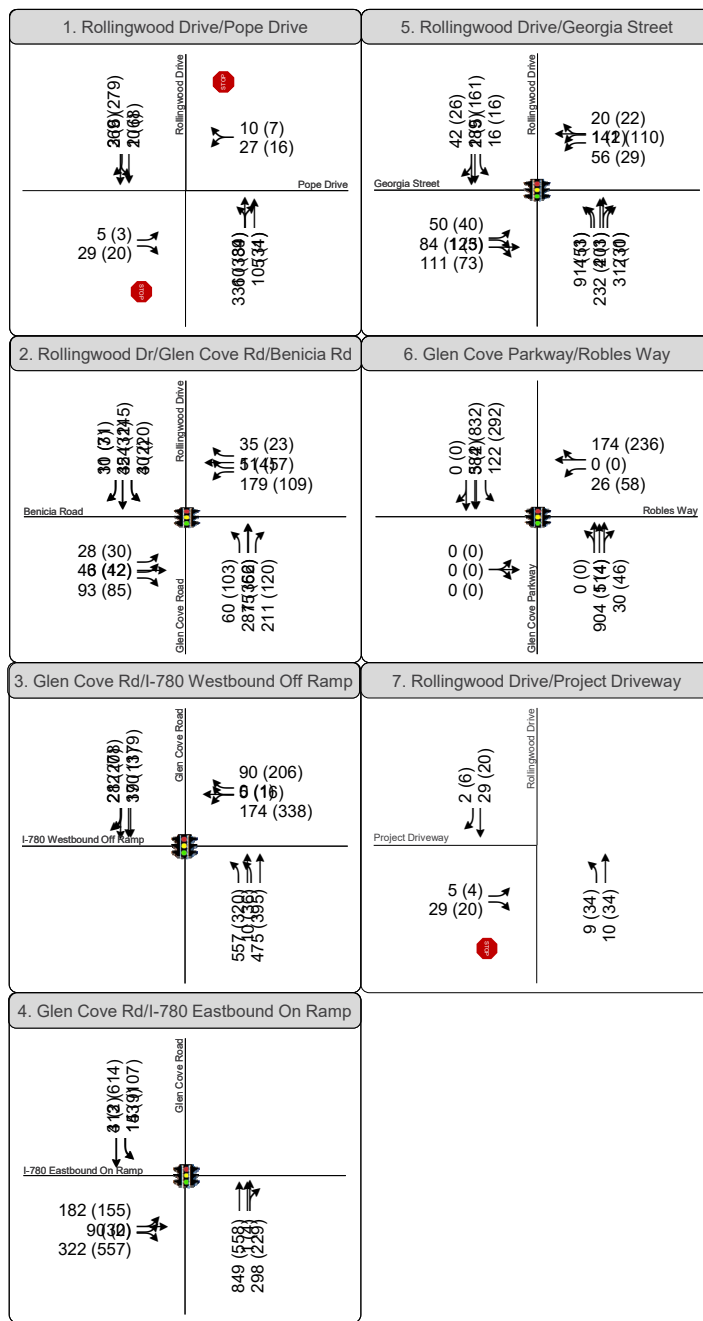
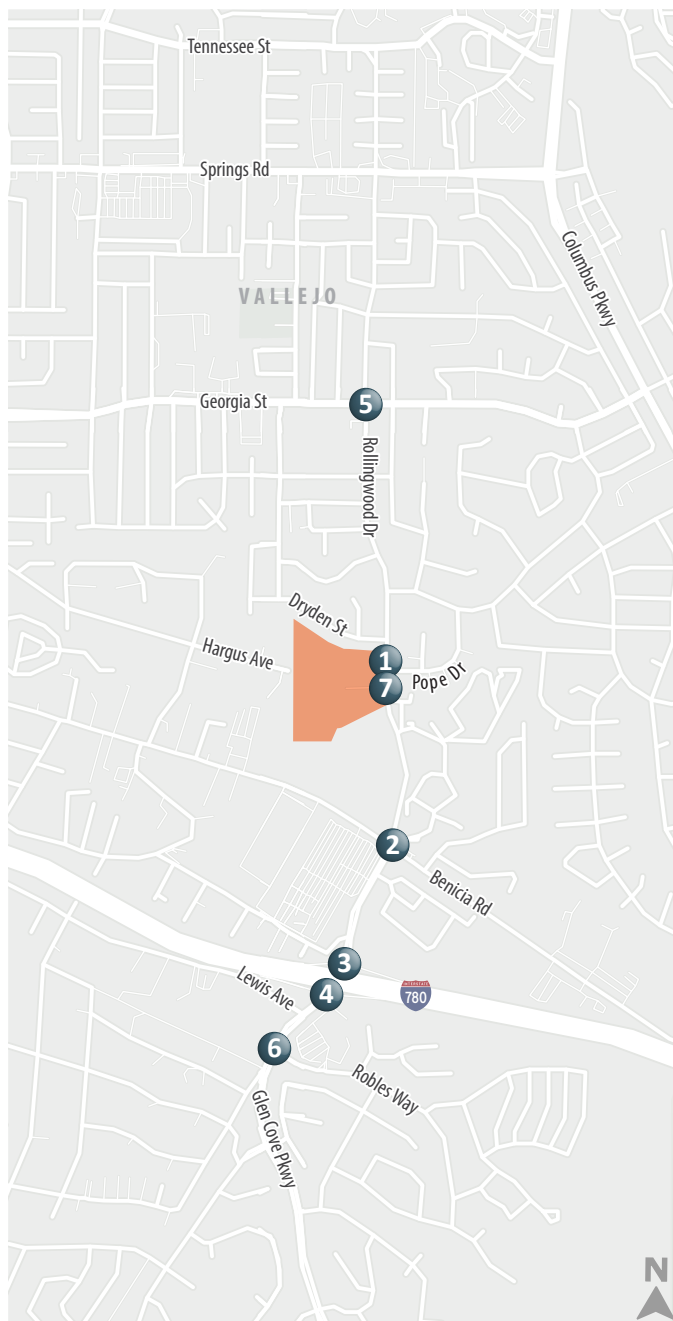
7.1 Cumulative Traffic Forecasts

To assess future growth with planned development in the City of Vallejo, several sources of data were reviewed, including SNABM, and the traffic growth trends as described in Vallejo's General Plan. Traffic forecasts within the immediate study area were reviewed to ensure that known developments were adequately reflected in the forecasts. Minor adjustments were made to the forecasts to balance traffic volumes between closely spaced intersections in the study area. The resulting Cumulative forecasts are presented on **Figure 11**, which are representative of conditions over the next 20 years, with the buildout of the City's General Plan. The project volumes on **Figure 8** were added to the Cumulative traffic volumes to develop Cumulative Plus Project conditions, as presented on **Figure 12**.

7.2 Analysis of Cumulative Conditions

Cumulative without and with Project conditions were evaluated using the methods described in Chapter 2. The analysis results are presented in **Table 6**, based on traffic volumes and lane configurations on **Figure 11** and **Figure 12**.



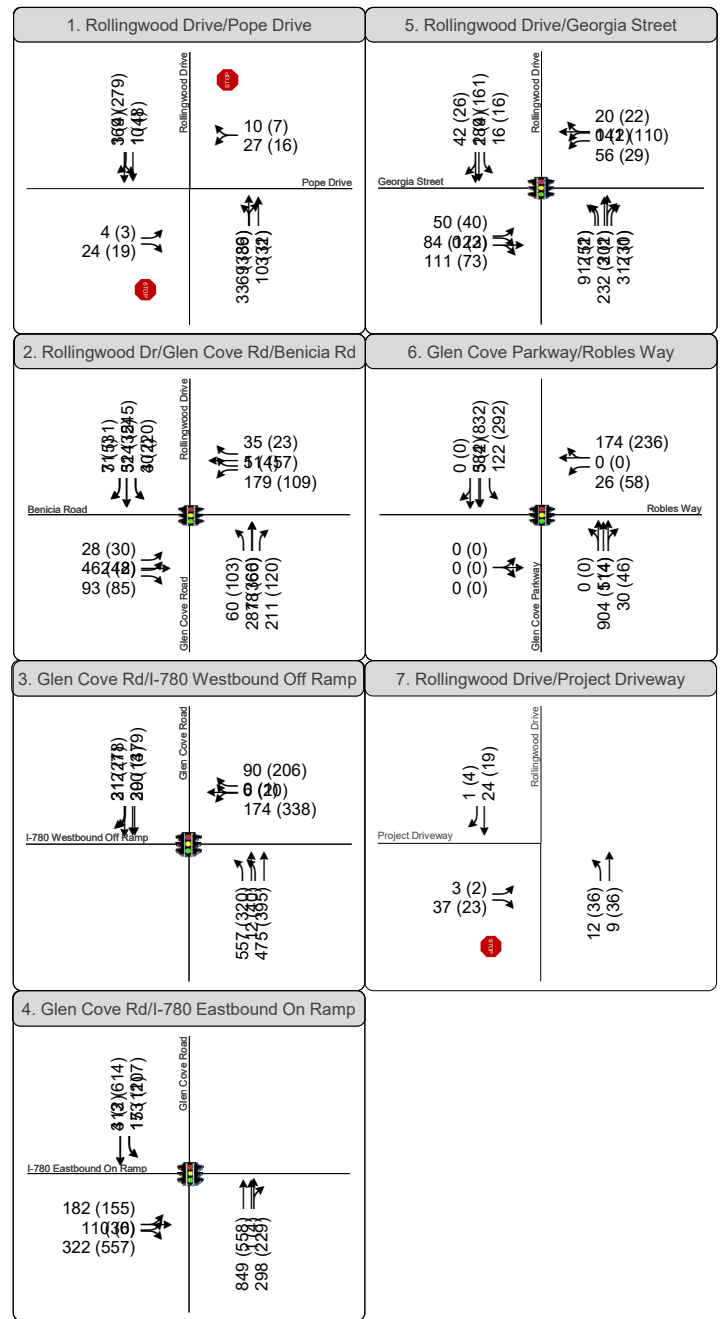
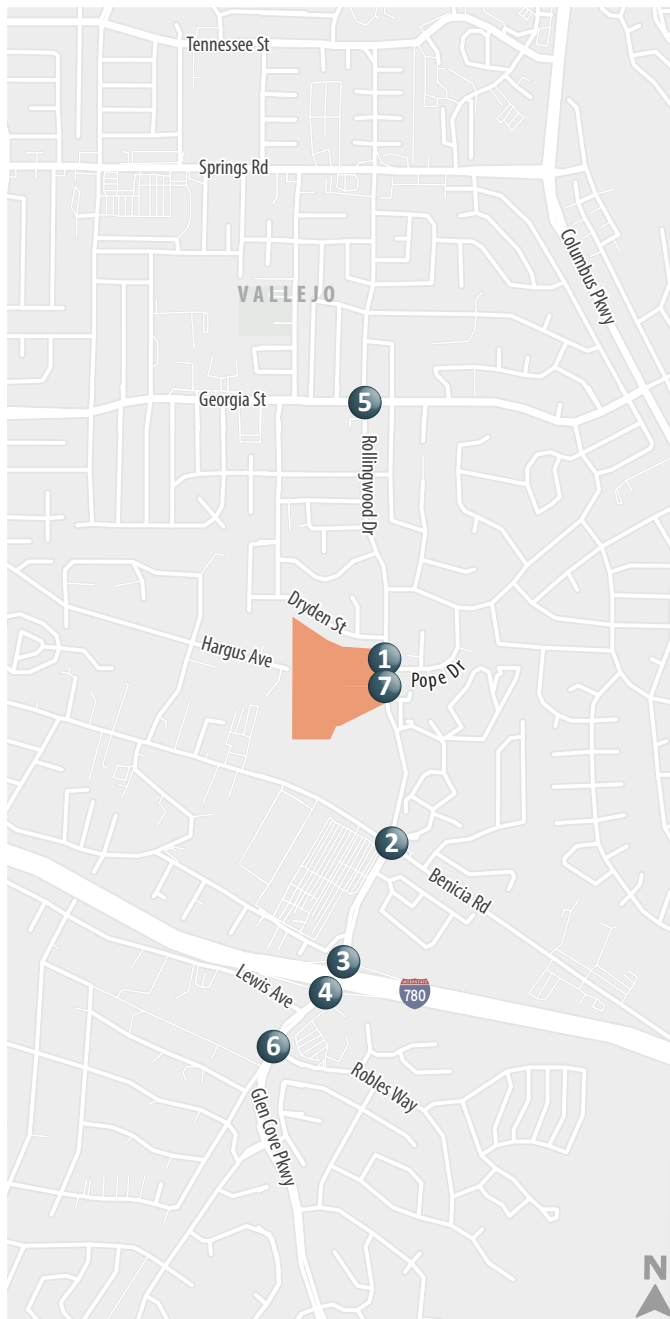


XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign

Project Site Study Intersection



Figure 8
Existing Conditions Peak Hour
Intersection Traffic Volumes, Lane Configuration and Traffic Controls



XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign

Project Site Study Intersection



Figure 8
Existing Conditions Peak Hour
Intersection Traffic Volumes, Lane Configuration, and Traffic Controls

Table 6: Cumulative Year and Cumulative Year Plus Project Conditions LOS Results Summary

Intersection	Control ¹	Peak Period ²	LOS Standard	Cumulative No Project		Cumulative Plus Project	
				Delay ³	LOS ⁴	Delay ³	LOS ⁴
1. Rollingwood Drive & Pope Drive	SSSC	AM PM	D	1.1 (20.3)	A (C)	1.8 (26.8)	A (D)
				0.7 (16)	A (C)	1.4 (20.7)	A (C)
2. Rollingwood Drive & Benicia Road	Signal	AM PM	D	23.7	C	25.1	C
				17.1	B	17.6	B
3. Glen Cove Road & I-780 Westbound on and off ramps	Signal	AM PM	D	29.1	C	30.2	C
				34	C	34	C
4. Glen Cove Road & I-780 Eastbound on and off ramps	Signal	AM PM	D	22.1	C	24.1	C
				12.5	B	14.3	B
5. Rollingwood Drive & Georgia Street	AWSC	AM PM	D	20.7	C	20.8	C
				16	B	16.2	B
6. Glen Cove Parkway & Robles Way	Signal	AM PM	D	15.8	B	15.8	B
				13.4	B	13.5	B
7. Rollingwood Drive & Southern Project Driveway	SSSC	AM PM	D	n/a	n/a	0.6 (12.5)	A (B)
				n/a	n/a	0.6 (11.4)	A (B)

Notes:

1. Traffic control type (SSSC = Side-Street Stop-Controlled; Signal = Signalized).
2. AM = Weekday morning peak hour, PM = weekday evening peak hour.
3. Whole intersection average delay reported for signalized intersections. Side-street stop-controlled delay presented as Whole Intersection Average Delay (Worst Approach Delay). Delay calculated per HCM 6th Edition methodologies.
4. LOS designation per HCM 6th Edition.

Source: Fehr & Peers, April 2025.

As shown in **Table 6**, all study intersections are expected to operate acceptably under the Cumulative and Cumulative Plus Project Conditions.



8. Site Plan Review

This chapter evaluates the proposed project site's access and circulation for vehicles, pedestrians, bicycles, and emergency vehicles based on the site plan presented previously on **Figure 2**.

8.1 Vehicle Access and Circulation

Vehicle access to the project site would be provided via the two driveways on Rollingwood Drive, as illustrated in Figure 2. Both driveways would be stop controlled on the minor street approaches, with traffic on Rollingwood Drive being uncontrolled. Levels of service at both project driveways would be well within the city's LOS standards with low levels of vehicular delay. The northern and southern project driveways, referred to as Street A and Street B in Figure 2, respectively, will connect internally to proposed Streets C, D, and E, and will culminate in two cul-de-sacs on the westmost side of the project site. Adequate vehicular access to and within the project site is provided.

8.2 Pedestrian Access and Circulation

The project would create a significant impact related to the pedestrian system if any of the following criteria are met (would the project):

- Disrupt existing pedestrian facilities; or
- Interfere with planned pedestrian facilities; or
- Create inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.

The project would construct sidewalks along all internal roadways. In addition, the project would construct sidewalks along its Rollingwood Drive frontage. The project proposes no features that would be hazardous to pedestrian travel and does not conflict with any pedestrian facilities plans or programs. The project is not expected to result in significant adverse impacts related to pedestrian facilities. The following recommendations are made to improve pedestrian circulation in the study area.

Improvement Recommendation #1 (Crosswalks): Install high visibility crosswalks on all four legs of the Rollingwood Drive/Pope Drive/Project Driveway intersection.



8.3 Bicycle Access and Circulation

The project would create a significant impact related to the bicycle system if any of the following criteria are met (would the project):

- Disrupt existing bicycle facilities; or
- Interfere with planned bicycle facilities; or
- Create inconsistencies with adopted bicycle system plans, guidelines, policies, or standards.

While the project does not propose any new designated bicycle facilities (lanes, routes, or paths), bicycles would be permitted on site. The project proposes no features that would be hazardous to bicycle travel and does not conflict with any bicycle facilities plans or programs. The project is not expected to result in significant adverse impacts related to bicycle facilities.

8.4 Emergency Vehicle Access

Several factors determine whether a project has adequate access for emergency vehicles, including the following:

4. Number of access points (both public and emergency access only)
5. Width of access points
6. Width of internal roadways

Emergency vehicle access to the site is provided via the two proposed driveways on Rollingwood Drive. Internal roadways are of sufficient width to accommodate emergency vehicles. The project is not expected to result in significant adverse impacts related to emergency vehicle access.

8.5 Transit Access

The project would create a significant impact related to transit service if the following criteria are met:

- The project interferes with existing transit facilities or precludes the construction of planned transit facilities.

The project proposes no features which conflict with existing or planned transit services. The project is not expected to result in increases in ridership on local or regional transit facilities that would exceed their capacity. Significant adverse impacts related to transit were not identified.



8.6 Hazards

Along the project's frontages the posted speed limit on Rollingwood Drive is 25 miles per hour. Table 201.1 of the Caltrans *Highway Design Manual* (HDM) states that the stopping sight distance standard for a design speed of 25 miles per hour is 150 feet. Field observations of existing sight distance at the proposed driveway locations on Rollingwood Drive appear adequate to meet Caltrans' requirement. As proposed the project does not present any hazardous condition related to transportation facilities.



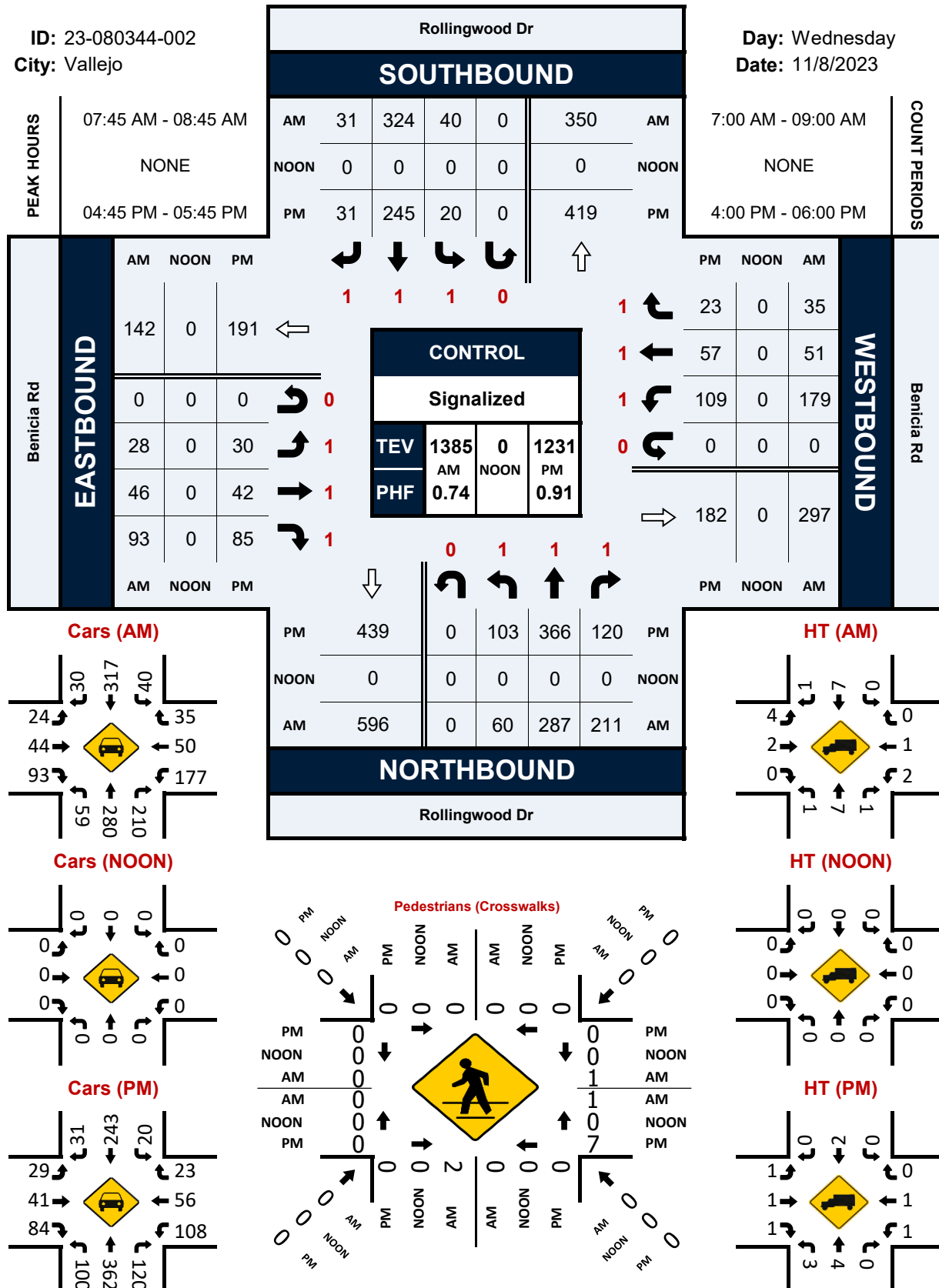
Appendix A: Traffic Turn Counts

Rollingwood Dr & Benicia Rd

Peak Hour Turning Movement Count

ID: 23-080344-002
City: Vallejo

Day: Wednesday
Date: 11/8/2023

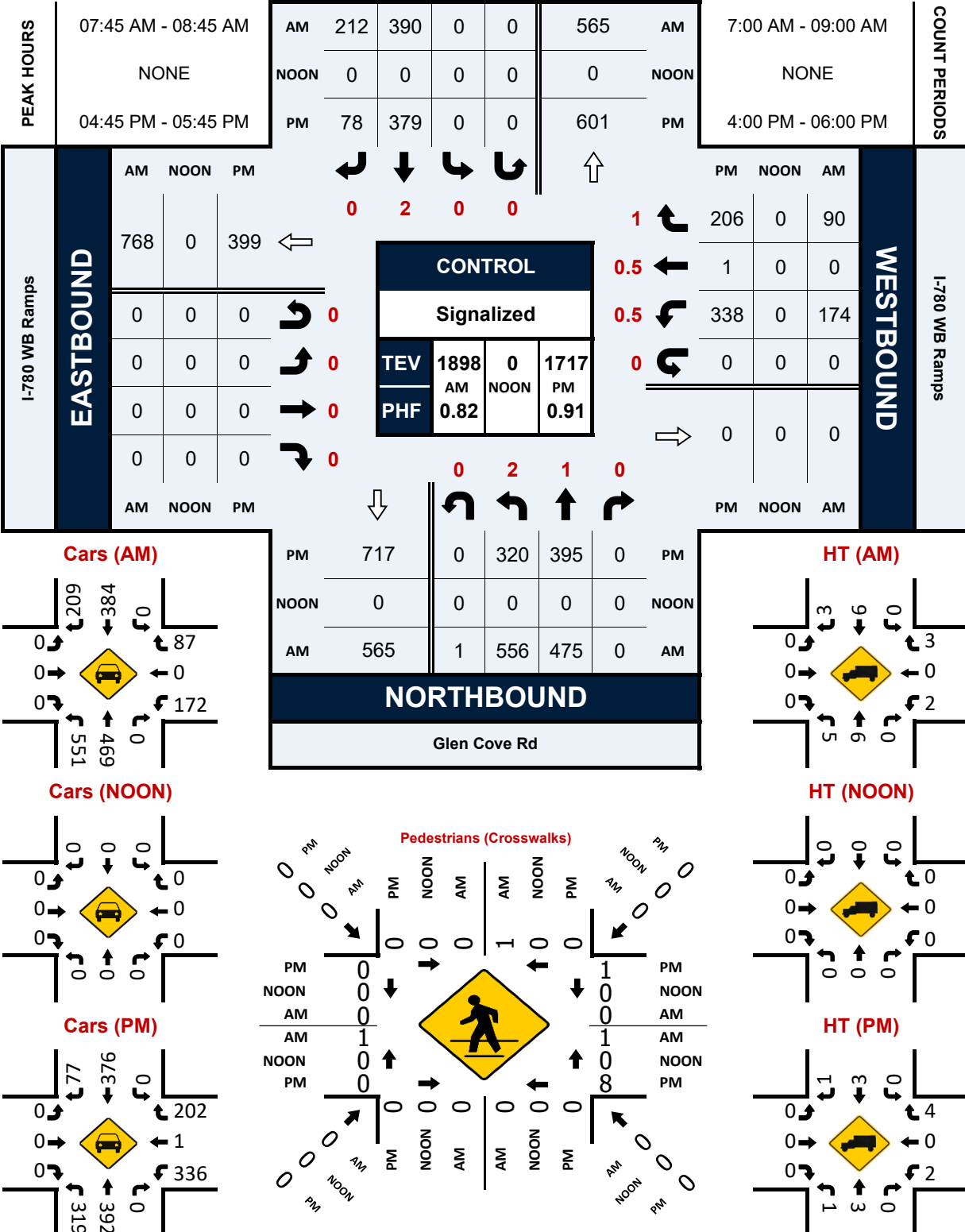


Glen Cove Rd & I-780 WB Ramps

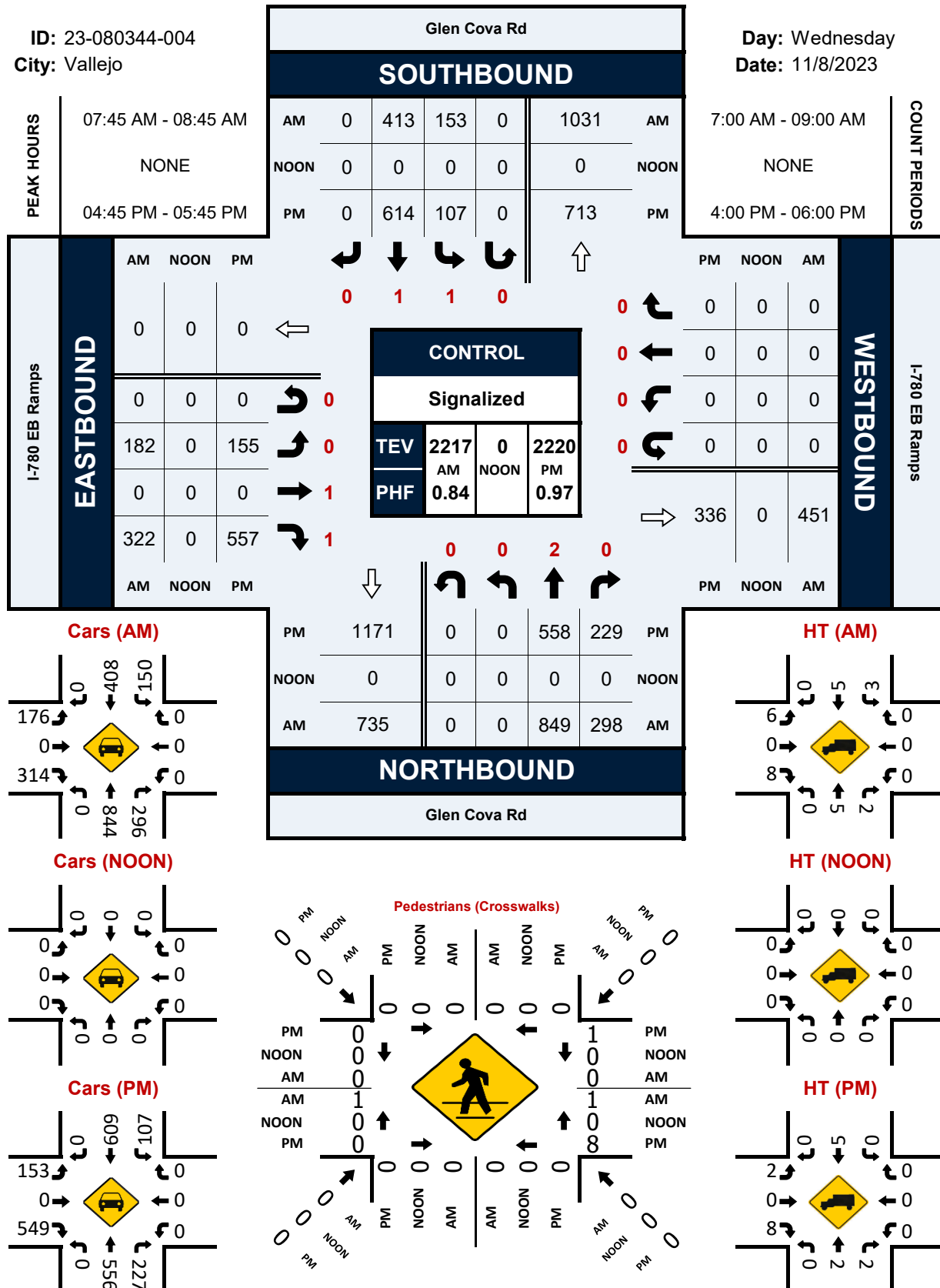
Peak Hour Turning Movement Count

ID: 23-080344-003
City: Vallejo

Day: Wednesday
Date: 11/8/2023



Day: Wednesday
Date: 11/8/2023

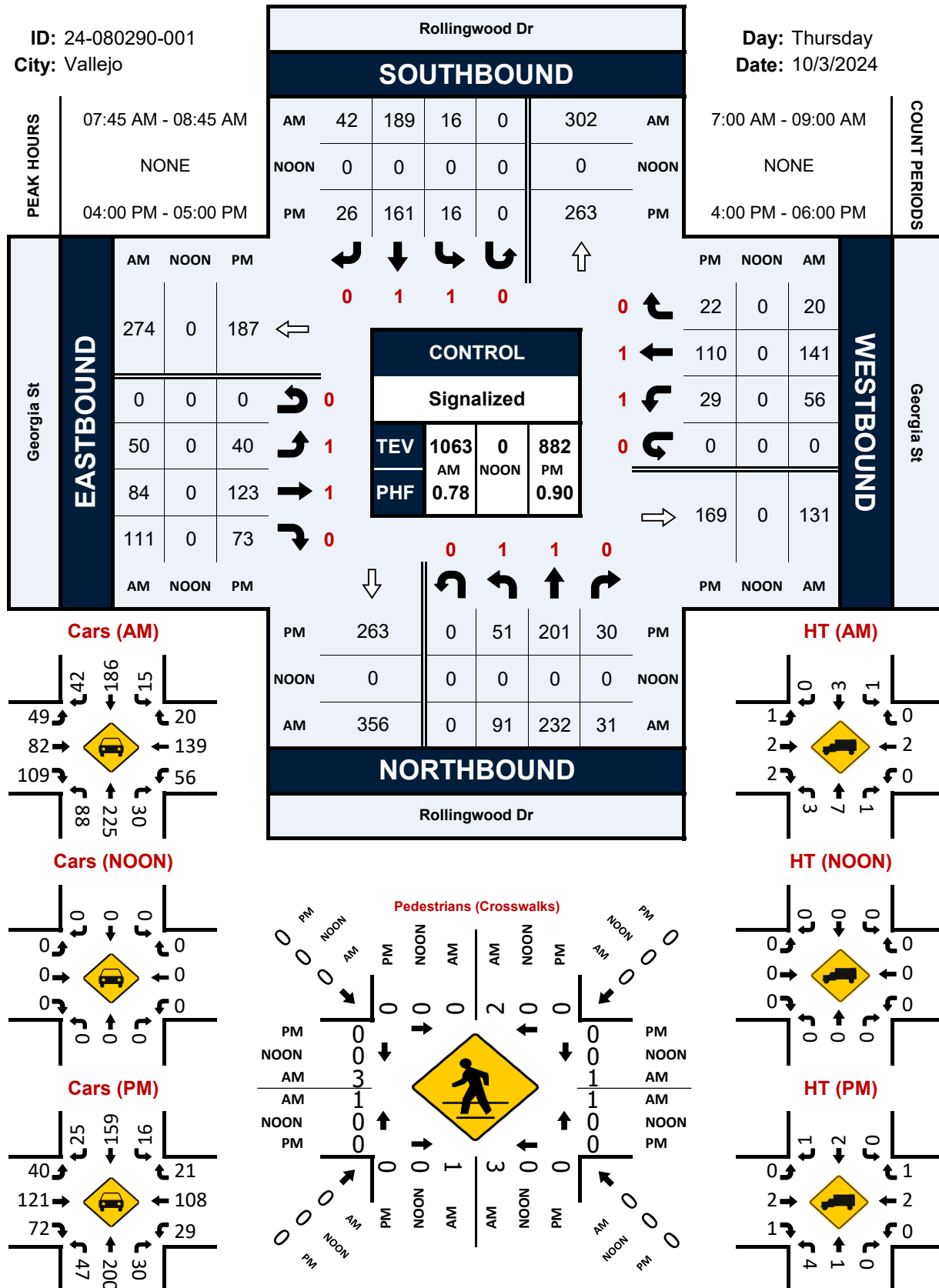


Rollingwood Dr & Georgia St

Peak Hour Turning Movement Count

ID: 24-080290-001
City: Vallejo

Day: Thursday
Date: 10/3/2024

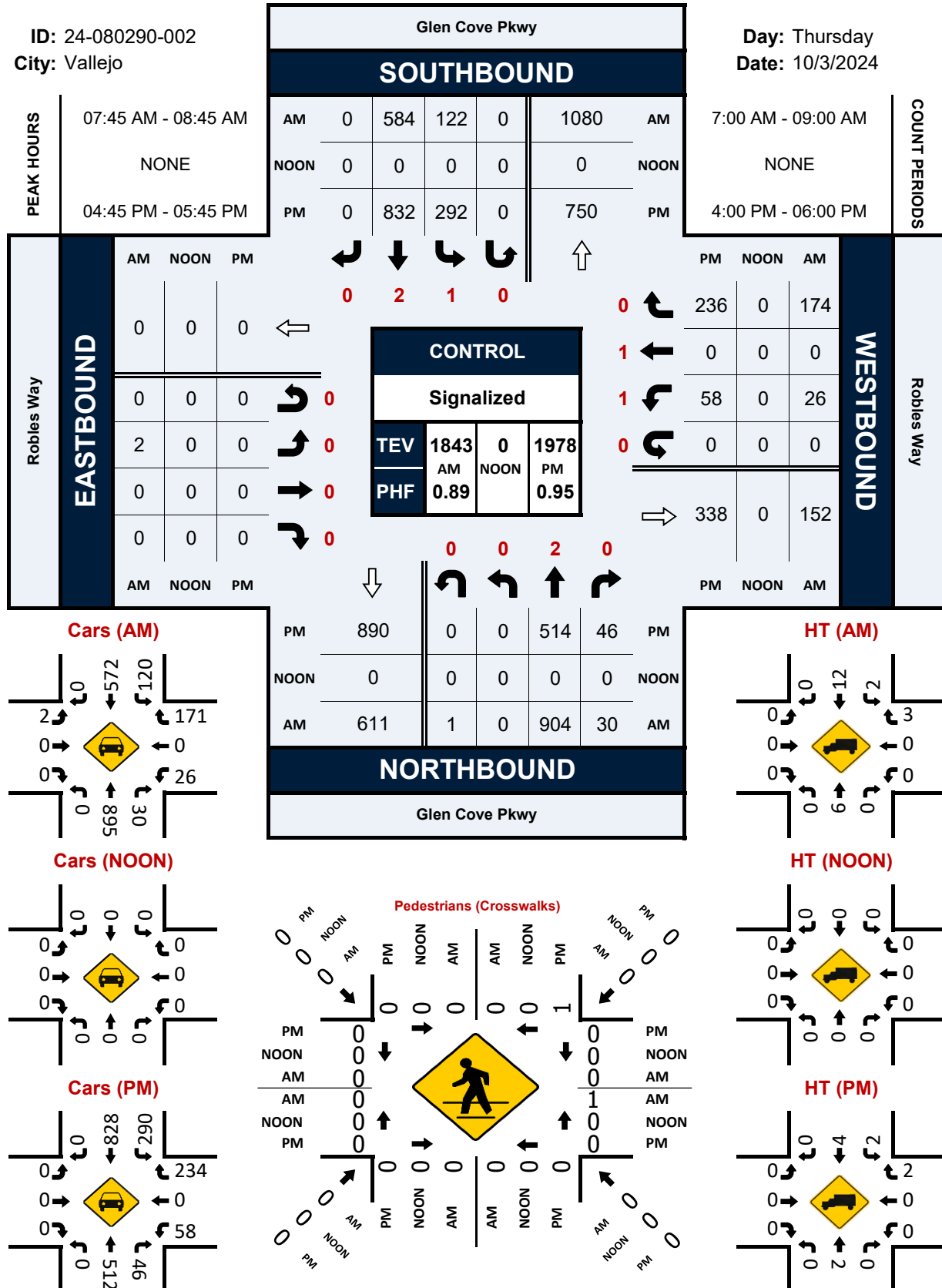


Glen Cove Pkwy & Robles Way

Peak Hour Turning Movement Count

ID: 24-080290-002
City: Vallejo

Day: Thursday
Date: 10/3/2024



Attachment B: Intersection Level of Service

HCM 6th Signalized Intersection Summary

2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Existing NP AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	46	93	179	51	35	60	287	211	40	324	31
Future Volume (veh/h)	28	46	93	179	51	35	60	287	211	40	324	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	38	62	126	242	69	47	81	388	285	54	438	42
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	71	239	199	299	479	396	113	541	457	90	516	436
Arrive On Green	0.04	0.13	0.13	0.17	0.26	0.26	0.06	0.29	0.29	0.05	0.28	0.28
Sat Flow, veh/h	1767	1856	1541	1767	1856	1533	1767	1856	1567	1767	1856	1567
Grp Volume(v), veh/h	38	62	126	242	69	47	81	388	285	54	438	42
Grp Sat Flow(s),veh/h/ln	1767	1856	1541	1767	1856	1533	1767	1856	1567	1767	1856	1567
Q Serve(g_s), s	1.2	1.7	4.3	7.3	1.6	1.3	2.5	10.4	8.8	1.7	12.4	1.1
Cycle Q Clear(g_c), s	1.2	1.7	4.3	7.3	1.6	1.3	2.5	10.4	8.8	1.7	12.4	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	239	199	299	479	396	113	541	457	90	516	436
V/C Ratio(X)	0.54	0.26	0.63	0.81	0.14	0.12	0.71	0.72	0.62	0.60	0.85	0.10
Avail Cap(c_a), veh/h	635	1000	831	953	1500	1239	635	1500	1267	635	1500	1267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	21.8	23.0	22.3	15.9	15.8	25.5	17.7	17.1	25.9	19.0	14.9
Incr Delay (d2), s/veh	2.4	0.2	1.2	2.0	0.1	0.0	3.1	0.7	0.5	2.4	1.5	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(50%),veh/ln	0.5	0.7	1.5	2.8	0.6	0.4	1.1	4.1	2.9	0.7	5.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.6	22.0	24.2	24.3	16.0	15.8	28.7	18.3	17.6	28.2	20.5	14.9
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h	226				358				754			
Approach Delay, s/veh	24.4				21.6				19.2			
Approach LOS	C				C				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	12.2	8.6	20.5	7.2	19.4	7.8	21.2				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	20.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	9.3	6.3	4.5	14.4	3.2	3.6	3.7	12.4				
Green Ext Time (p_c), s	0.3	0.2	0.1	1.1	0.0	0.1	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	20.7											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 3: Glen Cove Road & I-780 Westbound Off Ramp

Vallejo Rollingwood
Existing NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↶	↷	↶	↷			↶	↷
Traffic Volume (veh/h)	0	0	0	174	0	90	557	475	0	0	390	212
Future Volume (veh/h)	0	0	0	174	0	90	557	475	0	0	390	212
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	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				212	0	110	679	579	0	0	476	259
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				243	0	216	1712	1442	0	0	519	281
Arrive On Green				0.14	0.00	0.14	0.83	1.00	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1767	0	1569	3428	1856	0	0	2300	1194
Grp Volume(v), veh/h				212	0	110	679	579	0	0	380	355
Grp Sat Flow(s),veh/h/ln				1767	0	1569	1714	1856	0	0	1763	1639
Q Serve(g_s), s				12.9	0.0	7.2	5.4	0.0	0.0	0.0	23.1	23.3
Cycle Q Clear(g_c), s				12.9	0.0	7.2	5.4	0.0	0.0	0.0	23.1	23.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.73
Lane Grp Cap(c), veh/h				243	0	216	1712	1442	0	0	415	385
V/C Ratio(X)				0.87	0.00	0.51	0.40	0.40	0.00	0.00	0.92	0.92
Avail Cap(c_a), veh/h				374	0	332	1712	1442	0	0	486	451
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.67	0.67	0.00	0.00	0.70	0.70
Uniform Delay (d), s/veh				46.5	0.0	44.0	5.0	0.0	0.0	0.0	41.0	41.1
Incr Delay (d2), s/veh				8.9	0.0	0.7	0.0	0.6	0.0	0.0	21.2	23.2
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(50%),veh/ln				6.1	0.0	2.7	1.5	0.2	0.0	0.0	12.3	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				55.4	0.0	44.7	5.1	0.6	0.0	0.0	62.2	64.3
LnGrp LOS				E		D	A	A			E	E
Approach Vol, veh/h					322			1258			735	
Approach Delay, s/veh					51.8			3.0			63.2	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		90.2			59.6	30.6		19.8				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		77.3			42.3	30.3		23.3				
Max Q Clear Time (g_c+I1), s		2.0			7.4	25.3		14.9				
Green Ext Time (p_c), s		0.5			0.1	0.6		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				28.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Existing NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↰	↱	↰	↱	
Traffic Volume (veh/h)	182	0	322	0	0	0	0	849	298	153	413	0
Future Volume (veh/h)	182	0	322	0	0	0	0	849	298	153	413	0
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	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	217	0	0				0	1011	355	182	492	0
Peak Hour Factor	0.84	0.84	0.84				0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	247	0					0	1568	545	207	1431	0
Arrive On Green	0.14	0.00	0.00				0.00	0.61	0.61	0.23	1.00	0.00
Sat Flow, veh/h	1767	0	1572				0	2658	892	1767	1856	0
Grp Volume(v), veh/h	217	0	0				0	692	674	182	492	0
Grp Sat Flow(s), veh/h/ln	1767	0	1572				0	1763	1694	1767	1856	0
Q Serve(g_s), s	13.2	0.0	0.0				0.0	27.6	28.3	10.9	0.0	0.0
Cycle Q Clear(g_c), s	13.2	0.0	0.0				0.0	27.6	28.3	10.9	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.53	1.00		0.00
Lane Grp Cap(c), veh/h	247	0					0	1077	1036	207	1431	0
V/C Ratio(X)	0.88	0.00					0.00	0.64	0.65	0.88	0.34	0.00
Avail Cap(c_a), veh/h	647	0					0	1077	1036	294	1431	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.90	0.90	0.90	0.90	0.00
Uniform Delay (d), s/veh	46.4	0.0	0.0				0.0	13.7	13.8	41.3	0.0	0.0
Incr Delay (d2), s/veh	3.9	0.0	0.0				0.0	2.7	2.9	13.5	0.6	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
%ile BackOfQ(50%),veh/ln	5.9	0.0	0.0				0.0	10.8	10.6	4.9	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.3	0.0	0.0				0.0	16.3	16.7	54.9	0.6	0.0
LnGrp LOS	D							B	B	D	A	
Approach Vol, veh/h	217						1366			674		
Approach Delay, s/veh	50.3						16.5			15.3		
Approach LOS	D						B			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	7.6	72.3		20.1			89.9					
Change Period (Y+Rc), s	4.7	5.1		4.7			5.1					
Max Green Setting (Gmax), s	18.3	35.9		40.3			59.9					
Max Q Clear Time (g_c+I12, s)	11.9	30.3		15.2			2.0					
Green Ext Time (p_c), s	0.0	1.1		0.2			0.5					

Intersection Summary

HCM 6th Ctrl Delay, s/veh	19.4
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Existing NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	84	111	56	141	20	91	232	31	16	189	42
Future Volume (veh/h)	50	84	111	56	141	20	91	232	31	16	189	42
Initial Q (Qb), veh	0	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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	64	108	142	72	181	26	117	297	40	21	242	54
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	105	151	198	113	338	48	151	466	63	45	339	76
Arrive On Green	0.06	0.21	0.21	0.06	0.21	0.21	0.09	0.29	0.29	0.03	0.23	0.23
Sat Flow, veh/h	1767	723	951	1767	1584	228	1767	1600	215	1767	1466	327
Grp Volume(v), veh/h	64	0	250	72	0	207	117	0	337	21	0	296
Grp Sat Flow(s),veh/h/ln	1767	0	1674	1767	0	1812	1767	0	1815	1767	0	1793
Q Serve(g_s), s	1.7	0.0	6.8	1.9	0.0	4.9	3.2	0.0	7.9	0.6	0.0	7.4
Cycle Q Clear(g_c), s	1.7	0.0	6.8	1.9	0.0	4.9	3.2	0.0	7.9	0.6	0.0	7.4
Prop In Lane	1.00		0.57	1.00		0.13	1.00		0.12	1.00		0.18
Lane Grp Cap(c), veh/h	105	0	349	113	0	386	151	0	529	45	0	415
V/C Ratio(X)	0.61	0.00	0.72	0.64	0.00	0.54	0.78	0.00	0.64	0.47	0.00	0.71
Avail Cap(c_a), veh/h	726	0	1031	726	0	1116	726	0	1118	726	0	1105
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	17.9	22.2	0.0	17.0	21.8	0.0	15.0	23.4	0.0	17.2
Incr Delay (d2), s/veh	2.1	0.0	1.0	2.2	0.0	0.4	3.2	0.0	0.5	2.8	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.5	0.8	0.0	1.9	1.3	0.0	2.9	0.3	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.5	0.0	19.0	24.5	0.0	17.5	25.0	0.0	15.5	26.2	0.0	18.1
LnGrp LOS	C		B	C		B	C		B	C		B
Approach Vol, veh/h	314		279			454			317			
Approach Delay, s/veh	20.1		19.3			17.9			18.6			
Approach LOS	C		B			B			B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	15.4	6.2	19.2	8.1	15.2	9.2	16.3				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I1), s	13.7	6.9	2.6	9.9	3.9	8.8	5.2	9.4				
Green Ext Time (p_c), s	0.0	0.4	0.0	1.1	0.0	0.6	0.1	0.9				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			18.9									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Existing NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗			↔		↖	↗	
Traffic Volume (veh/h)	0	0	0	26	0	174	0	904	30	122	584	0
Future Volume (veh/h)	0	0	0	26	0	174	0	904	30	122	584	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1856	1870	1856	1856	1856	1856	1870
Adj Flow Rate, veh/h	0	0	0	29	0	196	0	1016	34	137	656	0
Peak Hour Factor	0.92	0.92	0.92	0.89	0.92	0.89	0.92	0.89	0.89	0.89	0.89	0.92
Percent Heavy Veh, %	2	2	2	3	2	3	2	3	3	3	3	2
Cap, veh/h	0	2	0	255	0	229	0	2180	73	164	2696	0
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.14	0.00	0.63	0.63	0.19	1.00	0.00
Sat Flow, veh/h	0	1870	0	1767	0	1585	0	3574	116	1767	3618	0
Grp Volume(v), veh/h	0	0	0	29	0	196	0	515	535	137	656	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1767	0	1585	0	1763	1834	1767	1763	0
Q Serve(g_s), s	0.0	0.0	0.0	1.6	0.0	13.3	0.0	16.9	16.9	8.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.6	0.0	13.3	0.0	16.9	16.9	8.2	0.0	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	255	0	229	0	1104	1149	164	2696	0
V/C Ratio(X)	0.00	0.00	0.00	0.11	0.00	0.86	0.00	0.47	0.47	0.84	0.24	0.00
Avail Cap(c_a), veh/h	0	204	0	434	0	389	0	1104	1149	402	2696	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.9	0.0	45.9	0.0	10.8	10.8	44.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	3.8	0.0	1.4	1.4	3.6	0.2	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(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	5.4	0.0	6.5	6.7	3.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	41.0	0.0	49.8	0.0	12.3	12.2	47.6	0.2	0.0
LnGrp LOS				D	D			B		B	D	A
Approach Vol, veh/h	0			225			1050			793		
Approach Delay, s/veh	0.0			48.6			12.2			8.4		
Approach LOS				D			B			A		
Timer - Assigned Phs	2			4		5	6		8			
Phs Duration (G+Y+Rc), s	89.1			20.9		15.2	73.9		0.0			
Change Period (Y+Rc), s	5.0			5.0		5.0	5.0		5.0			
Max Green Setting (Gmax), s	56.0			27.0		25.0	26.0		12.0			
Max Q Clear Time (g_c+I1), s	2.0			15.3		10.2	18.9		0.0			
Green Ext Time (p_c), s	1.7			0.6		0.1	1.6		0.0			
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	14.7											
HCM 6th LOS	B											

HCM 6th TWSC
1: Rollingwood Drive & Pope Drive

Vallejo Rollingwood
Existing NP PM

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	16	7	389	31	8	279
Future Vol, veh/h	16	7	389	31	8	279
Conflicting Peds, #/hr	0	0	0	1	1	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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	8	442	35	9	317
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	796	461	0	0	478	0
Stage 1	461	-	-	-	-	-
Stage 2	335	-	-	-	-	-
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	356	600	-	-	1084	-
Stage 1	635	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	352	599	-	-	1083	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	14.6	0	0.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	403	1083	-	
HCM Lane V/C Ratio	-	-	0.065	0.008	-	
HCM Control Delay (s/veh)	-	-	14.6	8.4	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q (veh)	-	-	0.2	0	-	

HCM 6th Signalized Intersection Summary

2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Existing NP PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	42	85	109	57	23	103	366	120	20	245	31
Future Volume (veh/h)	30	42	85	109	57	23	103	366	120	20	245	31
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		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	46	93	120	63	25	113	402	132	22	269	34
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	221	187	159	317	263	155	548	449	48	436	364
Arrive On Green	0.04	0.12	0.12	0.09	0.17	0.17	0.09	0.29	0.29	0.03	0.23	0.23
Sat Flow, veh/h	1781	1870	1585	1781	1870	1550	1781	1870	1533	1781	1870	1561
Grp Volume(v), veh/h	33	46	93	120	63	25	113	402	132	22	269	34
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1550	1781	1870	1533	1781	1870	1561
Q Serve(g_s), s	0.8	0.9	2.3	2.8	1.2	0.6	2.6	8.2	2.8	0.5	5.5	0.7
Cycle Q Clear(g_c), s	0.8	0.9	2.3	2.8	1.2	0.6	2.6	8.2	2.8	0.5	5.5	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	68	221	187	159	317	263	155	548	449	48	436	364
V/C Ratio(X)	0.49	0.21	0.50	0.75	0.20	0.10	0.73	0.73	0.29	0.46	0.62	0.09
Avail Cap(c_a), veh/h	1263	1326	1124	1263	1989	1648	842	1989	1630	842	1989	1660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	16.9	17.5	18.8	15.1	14.8	18.8	13.5	11.6	20.3	14.5	12.7
Incr Delay (d2), s/veh	2.0	0.2	0.8	2.7	0.1	0.1	2.5	0.7	0.1	2.5	0.5	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(50%),veh/ln	0.3	0.4	0.8	1.1	0.4	0.2	1.1	2.9	0.8	0.2	2.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.0	17.0	18.2	21.5	15.2	14.9	21.3	14.2	11.7	22.8	15.1	12.8
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h	172			208			647			325		
Approach Delay, s/veh	18.6			18.8			14.9			15.4		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	10.0	8.7	14.9	6.6	12.2	6.1	17.4				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	30.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	4.8	4.3	4.6	7.5	2.8	3.2	2.5	10.2				
Green Ext Time (p_c), s	0.1	0.1	0.1	0.6	0.0	0.1	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	16.1											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

Vallejo Rollingwood

3: Glen Cove Road & I-780 Westbound On Ramp/I-780 Westbound Off Ramp

Existing NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔	↔	↔	↔			↔	↔
Traffic Volume (veh/h)	0	0	0	338	1	206	320	395	0	0	379	78
Future Volume (veh/h)	0	0	0	338	1	206	320	395	0	0	379	78
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				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				371	1	226	352	434	0	0	416	86
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				401	1	358	1649	1281	0	0	479	98
Arrive On Green				0.23	0.23	0.23	0.95	1.00	0.00	0.00	0.16	0.16
Sat Flow, veh/h				1777	5	1585	3456	1870	0	0	3030	602
Grp Volume(v), veh/h				372	0	226	352	434	0	0	250	252
Grp Sat Flow(s),veh/h/ln				1782	0	1585	1728	1870	0	0	1777	1762
Q Serve(g_s), s				21.5	0.0	13.5	0.6	0.0	0.0	0.0	14.4	14.6
Cycle Q Clear(g_c), s				21.5	0.0	13.5	0.6	0.0	0.0	0.0	14.4	14.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.34
Lane Grp Cap(c), veh/h				402	0	358	1649	1281	0	0	290	287
V/C Ratio(X)				0.93	0.00	0.63	0.21	0.34	0.00	0.00	0.86	0.88
Avail Cap(c_a), veh/h				565	0	503	1649	1281	0	0	462	458
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	0.86	0.86
Uniform Delay (d), s/veh				39.8	0.0	36.7	1.3	0.0	0.0	0.0	42.8	42.9
Incr Delay (d2), s/veh				14.4	0.0	0.7	0.0	0.6	0.0	0.0	24.4	26.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.6	0.0	5.1	0.2	0.2	0.0	0.0	8.2	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.2	0.0	37.4	1.3	0.6	0.0	0.0	67.2	68.9
LnGrp LOS				D		D	A	A			E	E
Approach Vol, veh/h					598			786			502	
Approach Delay, s/veh					47.9			0.9			68.1	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.6			54.8	21.8		28.4				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		62.3			30.3	27.3		33.3				
Max Q Clear Time (g_c+I1), s		2.0			2.6	16.6		23.5				
Green Ext Time (p_c), s		0.4			0.1	0.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh											33.7	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary 4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Existing NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↗		↗	↕	
Traffic Volume (veh/h)	155	0	557	0	0	0	0	558	229	107	614	0
Future Volume (veh/h)	155	0	557	0	0	0	0	558	229	107	614	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	160	0	0				0	575	236	110	633	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	191	0					0	1660	680	135	1495	0
Arrive On Green	0.11	0.00	0.00				0.00	0.68	0.68	0.15	1.00	0.00
Sat Flow, veh/h	1781	0	1585				0	2539	1002	1781	1870	0
Grp Volume(v), veh/h	160	0	0				0	417	394	110	633	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1671	1781	1870	0
Q Serve(g_s), s	9.3	0.0	0.0				0.0	10.4	10.4	6.3	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	0.0				0.0	10.4	10.4	6.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.60	1.00		0.00
Lane Grp Cap(c), veh/h	191	0					0	1206	1134	135	1495	0
V/C Ratio(X)	0.84	0.00					0.00	0.35	0.35	0.82	0.42	0.00
Avail Cap(c_a), veh/h	938	0					0	1206	1134	226	1495	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.77	0.77	0.97	0.97	0.00
Uniform Delay (d), s/veh	46.0	0.0	0.0				0.0	7.1	7.1	43.8	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.6	0.6	4.3	0.9	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
%ile BackOfQ(50%),veh/ln	4.1	0.0	0.0				0.0	3.6	3.4	2.7	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.7	0.0	0.0				0.0	7.7	7.7	48.2	0.9	0.0
LnGrp LOS	D						A			A		
Approach Vol, veh/h	160						811			743		
Approach Delay, s/veh	49.7						7.7			7.9		
Approach LOS	D						A			A		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	12.7	76.4	16.0		89.0							
Change Period (Y+Rc), s	4.7	5.1	4.7		5.1							
Max Green Setting (Gmax), s	13.3	21.9	55.3		38.9							
Max Q Clear Time (g_c+I), s	10.3	12.4	11.3		2.0							
Green Ext Time (p_c), s	0.0	0.7	0.1		0.6							
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	11.7											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Existing NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	123	73	29	110	22	51	201	30	16	161	26
Future Volume (veh/h)	40	123	73	29	110	22	51	201	30	16	161	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	137	81	32	122	24	57	223	33	18	179	29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	202	120	68	262	52	107	339	50	41	276	45
Arrive On Green	0.05	0.18	0.18	0.04	0.17	0.17	0.06	0.21	0.21	0.02	0.18	0.18
Sat Flow, veh/h	1781	1102	651	1781	1518	299	1781	1592	236	1781	1570	254
Grp Volume(v), veh/h	44	0	218	32	0	146	57	0	256	18	0	208
Grp Sat Flow(s),veh/h/ln	1781	0	1753	1781	0	1817	1781	0	1828	1781	0	1825
Q Serve(g_s), s	0.9	0.0	4.3	0.6	0.0	2.7	1.1	0.0	4.7	0.4	0.0	3.9
Cycle Q Clear(g_c), s	0.9	0.0	4.3	0.6	0.0	2.7	1.1	0.0	4.7	0.4	0.0	3.9
Prop In Lane	1.00		0.37	1.00		0.16	1.00		0.13	1.00		0.14
Lane Grp Cap(c), veh/h	88	0	322	68	0	313	107	0	389	41	0	321
V/C Ratio(X)	0.50	0.00	0.68	0.47	0.00	0.47	0.53	0.00	0.66	0.44	0.00	0.65
Avail Cap(c_a), veh/h	966	0	1427	966	0	1478	966	0	1488	966	0	1485
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	0.0	14.0	17.4	0.0	13.7	16.8	0.0	13.3	17.8	0.0	14.1
Incr Delay (d2), s/veh	1.6	0.0	0.9	1.9	0.0	0.4	1.5	0.0	0.7	2.8	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.5	0.3	0.0	1.0	0.5	0.0	1.7	0.2	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.7	0.0	15.0	19.3	0.0	14.1	18.4	0.0	14.0	20.6	0.0	15.0
LnGrp LOS	B		B	B		B	B		B	C		B
Approach Vol, veh/h	262					178		313		226		
Approach Delay, s/veh	15.6					15.1		14.8		15.4		
Approach LOS	B					B		B		B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	11.4	5.8	12.8	6.4	11.8	7.2	11.5				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I), s	12.9	4.7	2.4	6.7	2.6	6.3	3.1	5.9				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.8	0.0	0.5	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary 6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Existing NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔		↔	↔	
Traffic Volume (veh/h)	0	0	0	58	0	236	0	514	46	292	832	0
Future Volume (veh/h)	0	0	0	58	0	236	0	514	46	292	832	0
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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	61	0	248	0	541	48	307	876	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	4	0	382	0	340	0	741	66	382	1970	0
Arrive On Green	0.00	0.00	0.00	0.21	0.00	0.21	0.00	0.22	0.22	0.21	0.55	0.00
Sat Flow, veh/h	0	1870	0	1779	0	1583	0	3389	292	1781	3647	0
Grp Volume(v), veh/h	0	0	0	61	0	248	0	291	298	307	876	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1779	0	1583	0	1777	1810	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	6.3	0.0	6.6	6.6	7.1	6.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.2	0.0	6.3	0.0	6.6	6.6	7.1	6.3	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.16	1.00		0.00
Lane Grp Cap(c), veh/h	0	4	0	382	0	340	0	400	407	382	1970	0
V/C Ratio(X)	0.00	0.00	0.00	0.16	0.00	0.73	0.00	0.73	0.73	0.80	0.44	0.00
Avail Cap(c_a), veh/h	0	1294	0	1231	0	1095	0	1230	1253	1643	2459	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)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	13.8	0.0	15.8	0.0	15.6	15.6	16.2	5.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.1	0.0	1.0	1.0	1.5	0.1	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(50%),veh/ln	0.0	0.0	0.0	0.4	0.0	2.0	0.0	2.3	2.3	2.5	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	13.9	0.0	17.0	0.0	16.5	16.5	17.7	5.8	0.0
LnGrp LOS				B				B	B	B	A	
Approach Vol, veh/h	0			309			589			1183		
Approach Delay, s/veh	0.0			16.4			16.5			8.9		
Approach LOS				B			B			A		
Timer - Assigned Phs	2			4	5	6	8					
Phs Duration (G+Y+Rc), s	29.0			14.3	14.3	14.8	0.0					
Change Period (Y+Rc), s	5.0			5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s	30.0			30.0	40.0	30.0	30.0					
Max Q Clear Time (g_c+I1), s	8.3			8.3	9.1	8.6	0.0					
Green Ext Time (p_c), s	2.3			1.1	0.4	1.1	0.0					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	12.2											
HCM 6th LOS	B											

HCM 6th TWSC
1: Rollingwood Drive & Pope Drive

Vallejo Rollingwood
Opening Year NP AM

Intersection

Int Delay, s/veh 1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	10	340	10	10	380
Future Vol, veh/h	30	10	340	10	10	380
Conflicting Peds, #/hr	0	0	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	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	38	13	436	13	13	487

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	958	445	0
Stage 1	445	-	-
Stage 2	513	-	-
Critical Hdwy	6.43	6.23	-
Critical Hdwy Stg 1	5.43	-	-
Critical Hdwy Stg 2	5.43	-	-
Follow-up Hdwy	3.527	3.327	-
Pot Cap-1 Maneuver	284	611	-
Stage 1	644	-	-
Stage 2	599	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	279	610	-
Mov Cap-2 Maneuver	279	-	-
Stage 1	643	-	-
Stage 2	589	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.2	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	323	1102
HCM Lane V/C Ratio	-	-	0.159	0.012
HCM Control Delay (s/veh)	-	-	18.2	8.3
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q (veh)	-	-	0.6	0

HCM 6th Signalized Intersection Summary 2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Opening Year NP AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	50	100	180	50	40	60	290	220	40	330	30
Future Volume (veh/h)	30	50	100	180	50	40	60	290	220	40	330	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	41	68	135	243	68	54	81	392	297	54	446	41
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	74	248	206	299	485	400	112	547	462	89	523	442
Arrive On Green	0.04	0.13	0.13	0.17	0.26	0.26	0.06	0.29	0.29	0.05	0.28	0.28
Sat Flow, veh/h	1767	1856	1542	1767	1856	1533	1767	1856	1567	1767	1856	1567
Grp Volume(v), veh/h	41	68	135	243	68	54	81	392	297	54	446	41
Grp Sat Flow(s),veh/h/ln	1767	1856	1542	1767	1856	1533	1767	1856	1567	1767	1856	1567
Q Serve(g_s), s	1.3	1.9	4.7	7.5	1.6	1.5	2.6	10.7	9.4	1.7	12.9	1.1
Cycle Q Clear(g_c), s	1.3	1.9	4.7	7.5	1.6	1.5	2.6	10.7	9.4	1.7	12.9	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	248	206	299	485	400	112	547	462	89	523	442
V/C Ratio(X)	0.55	0.27	0.65	0.81	0.14	0.13	0.72	0.72	0.64	0.61	0.85	0.09
Avail Cap(c_a), veh/h	622	979	813	932	1468	1213	622	1468	1240	622	1468	1240
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	22.1	23.4	22.8	16.1	16.1	26.1	17.9	17.4	26.4	19.3	15.1
Incr Delay (d2), s/veh	2.4	0.2	1.3	2.0	0.0	0.1	3.3	0.7	0.6	2.4	1.6	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(50%),veh/ln	0.6	0.8	1.7	2.9	0.6	0.5	1.1	4.2	3.1	0.7	5.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.1	22.4	24.7	24.8	16.2	16.1	29.4	18.6	18.0	28.9	20.9	15.1
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		244			365			770			541	
Approach Delay, s/veh		24.8			21.9			19.5			21.2	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.6	12.6	8.6	21.0	7.4	19.9	7.9	21.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	20.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+l1), s	9.5	6.7	4.6	14.9	3.3	3.6	3.7	12.7				
Green Ext Time (p_c), s	0.3	0.2	0.1	1.1	0.0	0.1	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			21.1									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

3: Glen Cove Road & I-780 Westbound Off Ramp

Vallejo Rollingwood
Opening Year NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	180	0	90	570	480	0	0	400	220
Future Volume (veh/h)	0	0	0	180	0	90	570	480	0	0	400	220
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	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				220	0	110	695	585	0	0	488	268
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				251	0	222	1676	1434	0	0	530	290
Arrive On Green				0.14	0.00	0.14	0.82	1.00	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1767	0	1569	3428	1856	0	0	2291	1202
Grp Volume(v), veh/h				220	0	110	695	585	0	0	391	365
Grp Sat Flow(s),veh/h/ln				1767	0	1569	1714	1856	0	0	1763	1637
Q Serve(g_s), s				13.4	0.0	7.1	6.2	0.0	0.0	0.0	23.8	24.0
Cycle Q Clear(g_c), s				13.4	0.0	7.1	6.2	0.0	0.0	0.0	23.8	24.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.73
Lane Grp Cap(c), veh/h				251	0	222	1676	1434	0	0	425	395
V/C Ratio(X)				0.88	0.00	0.49	0.41	0.41	0.00	0.00	0.92	0.93
Avail Cap(c_a), veh/h				374	0	332	1676	1434	0	0	486	451
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.65	0.65	0.00	0.00	0.70	0.70
Uniform Delay (d), s/veh				46.3	0.0	43.6	5.7	0.0	0.0	0.0	40.7	40.8
Incr Delay (d2), s/veh				10.5	0.0	0.6	0.0	0.6	0.0	0.0	21.4	23.3
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(50%),veh/ln				6.4	0.0	2.7	1.7	0.2	0.0	0.0	12.7	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				56.8	0.0	44.2	5.8	0.6	0.0	0.0	62.1	64.1
LnGrp LOS				E		D	A	A			E	E
Approach Vol, veh/h					330			1280			756	
Approach Delay, s/veh					52.6			3.4			63.0	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		89.7			58.5	31.2		20.3				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		77.3			42.3	30.3		23.3				
Max Q Clear Time (g_c+I1), s		2.0			8.2	26.0		15.4				
Green Ext Time (p_c), s		0.6			0.1	0.6		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				29.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary 4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Opening Year NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↗		↗	↕	
Traffic Volume (veh/h)	190	0	330	0	0	0	0	860	300	160	420	0
Future Volume (veh/h)	190	0	330	0	0	0	0	860	300	160	420	0
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	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	226	0	0				0	1024	357	190	500	0
Peak Hour Factor	0.84	0.84	0.84				0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	256	0					0	1547	534	215	1421	0
Arrive On Green	0.14	0.00	0.00				0.00	0.60	0.60	0.24	1.00	0.00
Sat Flow, veh/h	1767	0	1572				0	2664	887	1767	1856	0
Grp Volume(v), veh/h	226	0	0				0	699	682	190	500	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1695	1767	1856	0
Q Serve(g_s), s	13.8	0.0	0.0				0.0	28.8	29.5	11.4	0.0	0.0
Cycle Q Clear(g_c), s	13.8	0.0	0.0				0.0	28.8	29.5	11.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.52	1.00		0.00
Lane Grp Cap(c), veh/h	256	0					0	1060	1020	215	1421	0
V/C Ratio(X)	0.88	0.00					0.00	0.66	0.67	0.88	0.35	0.00
Avail Cap(c_a), veh/h	647	0					0	1060	1020	294	1421	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.89	0.89	0.89	0.89	0.00
Uniform Delay (d), s/veh	46.1	0.0	0.0				0.0	14.5	14.6	40.9	0.0	0.0
Incr Delay (d2), s/veh	3.9	0.0	0.0				0.0	2.9	3.1	15.3	0.6	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
%ile BackOfQ(50%),veh/ln	6.1	0.0	0.0				0.0	11.3	11.2	5.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.0	0.0	0.0				0.0	17.3	17.7	56.2	0.6	0.0
LnGrp LOS	D						B			B		
Approach Vol, veh/h	226						1381			690		
Approach Delay, s/veh	50.0						17.5			15.9		
Approach LOS	D						B			B		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	18.1	71.3	20.6		89.4							
Change Period (Y+Rc), s	4.7	5.1	4.7		5.1							
Max Green Setting (Gmax), s	18.3	35.9	40.3		59.9							
Max Q Clear Time (g_c+I1), s	13.4	31.5	15.8		2.0							
Green Ext Time (p_c), s	0.0	1.0	0.2		0.5							
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			20.2									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary 5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Opening Year NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	90	110	60	150	20	90	240	30	20	190	40
Future Volume (veh/h)	50	90	110	60	150	20	90	240	30	20	190	40
Initial Q (Qb), veh	0	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		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			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	64	115	141	77	192	26	115	308	38	26	244	51
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	105	159	195	117	349	47	148	459	57	54	342	71
Arrive On Green	0.06	0.21	0.21	0.07	0.22	0.22	0.08	0.28	0.28	0.03	0.23	0.23
Sat Flow, veh/h	1767	754	925	1767	1598	216	1767	1618	200	1767	1486	311
Grp Volume(v), veh/h	64	0	256	77	0	218	115	0	346	26	0	295
Grp Sat Flow(s),veh/h/ln	1767	0	1679	1767	0	1814	1767	0	1818	1767	0	1796
Q Serve(g_s), s	1.7	0.0	7.0	2.1	0.0	5.2	3.1	0.0	8.2	0.7	0.0	7.4
Cycle Q Clear(g_c), s	1.7	0.0	7.0	2.1	0.0	5.2	3.1	0.0	8.2	0.7	0.0	7.4
Prop In Lane	1.00		0.55	1.00		0.12	1.00		0.11	1.00		0.17
Lane Grp Cap(c), veh/h	105	0	355	117	0	396	148	0	516	54	0	413
V/C Ratio(X)	0.61	0.00	0.72	0.66	0.00	0.55	0.78	0.00	0.67	0.48	0.00	0.71
Avail Cap(c_a), veh/h	722	0	1028	722	0	1111	722	0	1113	722	0	1100
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	18.0	22.3	0.0	17.0	22.0	0.0	15.5	23.4	0.0	17.4
Incr Delay (d2), s/veh	2.1	0.0	1.0	2.3	0.0	0.4	3.2	0.0	0.6	2.5	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.5	0.9	0.0	2.0	1.3	0.0	3.1	0.3	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.6	0.0	19.0	24.6	0.0	17.5	25.2	0.0	16.1	25.9	0.0	18.2
LnGrp LOS	C		B	C		B	C		B	C		B
Approach Vol, veh/h	320				295				461			
Approach Delay, s/veh	20.1				19.3				18.4			
Approach LOS	C				B				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	15.7	6.5	18.9	8.2	15.4	9.1	16.3				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I1), s	13.7	7.2	2.7	10.2	4.1	9.0	5.1	9.4				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.1	0.0	0.6	0.1	0.9				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	19.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Opening Year NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	0	0	0	30	0	180	0	920	30	120	590	0	
Future Volume (veh/h)	0	0	0	30	0	180	0	920	30	120	590	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No			No			No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1856	1870	1856	1856	1856	1856	1870	
Adj Flow Rate, veh/h	0	0	0	34	0	202	0	1034	34	135	663	0	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.92	0.89	0.92	0.89	0.89	0.89	0.89	0.92	
Percent Heavy Veh, %	2	2	2	3	2	3	2	3	3	3	3	2	
Cap, veh/h	0	2	0	262	0	235	0	2172	71	162	2682	0	
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.15	0.00	0.62	0.62	0.18	1.00	0.00	
Sat Flow, veh/h	0	1870	0	1767	0	1585	0	3576	115	1767	3618	0	
Grp Volume(v), veh/h	0	0	0	34	0	202	0	523	545	135	663	0	
Grp Sat Flow(s),veh/h/ln	0	1870	0	1767	0	1585	0	1763	1835	1767	1763	0	
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	13.7	0.0	17.5	17.5	8.1	0.0	0.0	
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	13.7	0.0	17.5	17.5	8.1	0.0	0.0	
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.06	1.00		0.00	
Lane Grp Cap(c), veh/h	0	2	0	262	0	235	0	1099	1144	162	2682	0	
V/C Ratio(X)	0.00	0.00	0.00	0.13	0.00	0.86	0.00	0.48	0.48	0.83	0.25	0.00	
Avail Cap(c_a), veh/h	0	204	0	434	0	389	0	1099	1144	402	2682	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.83	0.83	0.00	
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.7	0.0	45.7	0.0	11.1	11.1	44.1	0.0	0.0	
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	5.0	0.0	1.5	1.4	3.6	0.2	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(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	5.7	0.0	6.7	6.9	3.4	0.1	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d), s/veh	0.0	0.0	0.0	40.8	0.0	50.7	0.0	12.6	12.5	47.7	0.2	0.0	
LnGrp LOS				D	D			B		B	D	A	
Approach Vol, veh/h	0			236			1068			798			
Approach Delay, s/veh	0.0			49.3			12.5			8.2			
Approach LOS				D			B			A			
Timer - Assigned Phs	2			4		5	6	8					
Phs Duration (G+Y+Rc), s	88.7			21.3		15.1	73.6	0.0					
Change Period (Y+Rc), s	5.0			5.0		5.0	5.0	5.0					
Max Green Setting (Gmax), s	56.0			27.0		25.0	26.0	12.0					
Max Q Clear Time (g_c+I1), s	2.0			15.7		10.1	19.5	0.0					
Green Ext Time (p_c), s	1.7			0.6		0.1	1.6	0.0					
Intersection Summary													
HCM 6th Ctrl Delay, s/veh	15.0												
HCM 6th LOS	B												

HCM 6th TWSC
1: Rollingwood Drive & Pope Drive

Vallejo Rollingwood
Opening Year NP PM

Intersection

Int Delay, s/veh 0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	10	400	30	10	290
Future Vol, veh/h	20	10	400	30	10	290
Conflicting Peds, #/hr	0	0	0	1	1	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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	11	455	34	11	330

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	825	473	0
Stage 1	473	-	-
Stage 2	352	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	342	591	-
Stage 1	627	-	-
Stage 2	712	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	337	590	-
Mov Cap-2 Maneuver	337	-	-
Stage 1	626	-	-
Stage 2	703	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	393	1072
HCM Lane V/C Ratio	-	-	0.087	0.011
HCM Control Delay (s/veh)	-	-	15	8.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q (veh)	-	-	0.3	0

HCM 6th Signalized Intersection Summary

2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Opening Year NP PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	40	90	110	60	20	110	370	120	20	250	30
Future Volume (veh/h)	30	40	90	110	60	20	110	370	120	20	250	30
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		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	44	99	121	66	22	121	407	132	22	275	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	220	187	159	316	262	159	552	452	48	435	363
Arrive On Green	0.04	0.12	0.12	0.09	0.17	0.17	0.09	0.30	0.30	0.03	0.23	0.23
Sat Flow, veh/h	1781	1870	1585	1781	1870	1550	1781	1870	1533	1781	1870	1561
Grp Volume(v), veh/h	33	44	99	121	66	22	121	407	132	22	275	33
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1550	1781	1870	1533	1781	1870	1561
Q Serve(g_s), s	0.8	0.9	2.5	2.8	1.3	0.5	2.8	8.3	2.8	0.5	5.6	0.7
Cycle Q Clear(g_c), s	0.8	0.9	2.5	2.8	1.3	0.5	2.8	8.3	2.8	0.5	5.6	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	68	220	187	159	316	262	159	552	452	48	435	363
V/C Ratio(X)	0.49	0.20	0.53	0.76	0.21	0.08	0.76	0.74	0.29	0.46	0.63	0.09
Avail Cap(c_a), veh/h	1258	1321	1119	1258	1981	1642	839	1981	1624	839	1981	1654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	16.9	17.6	18.9	15.2	14.9	18.9	13.5	11.5	20.4	14.7	12.8
Incr Delay (d2), s/veh	2.0	0.2	0.9	2.8	0.1	0.1	2.8	0.7	0.1	2.5	0.6	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(50%),veh/ln	0.3	0.3	0.8	1.1	0.5	0.2	1.1	2.9	0.8	0.2	2.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.0	17.1	18.5	21.7	15.3	14.9	21.7	14.2	11.7	22.9	15.2	12.8
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		176			209			660			330	
Approach Delay, s/veh		18.8			19.0			15.1			15.5	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	10.0	8.8	14.9	6.6	12.2	6.1	17.5				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	30.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	4.8	4.5	4.8	7.6	2.8	3.3	2.5	10.3				
Green Ext Time (p_c), s	0.1	0.1	0.1	0.6	0.0	0.1	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			16.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

Vallejo Rollingwood

3: Glen Cove Road & I-780 Westbound On Ramp/I-780 Westbound Off Ramp

Opening Year NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	340	0	210	330	400	0	0	390	80
Future Volume (veh/h)	0	0	0	340	0	210	330	400	0	0	390	80
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				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				374	0	231	363	440	0	0	429	88
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				404	0	359	1630	1279	0	0	492	100
Arrive On Green				0.23	0.00	0.23	0.94	1.00	0.00	0.00	0.17	0.17
Sat Flow, veh/h				1781	0	1585	3456	1870	0	0	3034	599
Grp Volume(v), veh/h				374	0	231	363	440	0	0	258	259
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1870	0	0	1777	1763
Q Serve(g_s), s				21.6	0.0	13.9	0.8	0.0	0.0	0.0	14.8	15.1
Cycle Q Clear(g_c), s				21.6	0.0	13.9	0.8	0.0	0.0	0.0	14.8	15.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.34
Lane Grp Cap(c), veh/h				404	0	359	1630	1279	0	0	297	295
V/C Ratio(X)				0.93	0.00	0.64	0.22	0.34	0.00	0.00	0.87	0.88
Avail Cap(c_a), veh/h				565	0	503	1630	1279	0	0	462	458
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.75	0.75	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh				39.7	0.0	36.7	1.6	0.0	0.0	0.0	42.6	42.7
Incr Delay (d2), s/veh				14.6	0.0	0.7	0.0	0.6	0.0	0.0	23.7	25.2
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(50%),veh/ln				10.6	0.0	5.2	0.2	0.2	0.0	0.0	8.4	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.3	0.0	37.5	1.6	0.6	0.0	0.0	66.3	67.9
LnGrp LOS				D		D	A	A			E	E
Approach Vol, veh/h				605			803				517	
Approach Delay, s/veh				47.9			1.0				67.1	
Approach LOS				D			A				E	
Timer - Assigned Phs	2			5	6		8					
Phs Duration (G+Y+Rc), s	76.5			54.2	22.3		28.5					
Change Period (Y+Rc), s	4.7			4.7	4.7		4.7					
Max Green Setting (Gmax), s	62.3			30.3	27.3		33.3					
Max Q Clear Time (g_c+I1), s	2.0			2.8	17.1		23.6					
Green Ext Time (p_c), s	0.4			0.1	0.5		0.2					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				33.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Opening Year NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↰	↱	↰	↱	
Traffic Volume (veh/h)	160	0	570	0	0	0	0	570	230	110	630	0
Future Volume (veh/h)	160	0	570	0	0	0	0	570	230	110	630	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	165	0	0				0	588	237	113	649	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	196	0					0	1659	667	138	1490	0
Arrive On Green	0.11	0.00	0.00				0.00	0.67	0.67	0.16	1.00	0.00
Sat Flow, veh/h	1781	0	1585				0	2553	990	1781	1870	0
Grp Volume(v), veh/h	165	0	0				0	424	401	113	649	0
Grp Sat Flow(s), veh/h/ln	1781	0	1585				0	1777	1673	1781	1870	0
Q Serve(g_s), s	9.5	0.0	0.0				0.0	10.7	10.8	6.4	0.0	0.0
Cycle Q Clear(g_c), s	9.5	0.0	0.0				0.0	10.7	10.8	6.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.59	1.00		0.00
Lane Grp Cap(c), veh/h	196	0					0	1198	1128	138	1490	0
V/C Ratio(X)	0.84	0.00					0.00	0.35	0.36	0.82	0.44	0.00
Avail Cap(c_a), veh/h	938	0					0	1198	1128	226	1490	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.77	0.77	0.96	0.96	0.00
Uniform Delay (d), s/veh	45.8	0.0	0.0				0.0	7.3	7.3	43.6	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.6	0.7	4.4	0.9	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
%ile BackOfQ(50%),veh/ln	4.3	0.0	0.0				0.0	3.8	3.6	2.8	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.5	0.0	0.0				0.0	8.0	8.0	48.0	0.9	0.0
LnGrp LOS	D							A	A	D	A	
Approach Vol, veh/h	165						825			762		
Approach Delay, s/veh	49.5						8.0			7.9		
Approach LOS	D						A			A		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	12.8	75.9		16.3			88.7					
Change Period (Y+Rc), s	4.7	5.1		4.7			5.1					
Max Green Setting (Gmax), s	13.3	21.9		55.3			38.9					
Max Q Clear Time (g_c+I), s	10.4	12.8		11.5			2.0					
Green Ext Time (p_c), s	0.0	0.7		0.1			0.6					

Intersection Summary

HCM 6th Ctrl Delay, s/veh 11.8
HCM 6th LOS B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Opening Year NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	130	80	30	110	20	50	210	30	20	160	30
Future Volume (veh/h)	40	130	80	30	110	20	50	210	30	20	160	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	144	89	33	122	22	56	233	33	22	178	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	208	128	69	280	51	105	335	47	49	272	50
Arrive On Green	0.05	0.19	0.19	0.04	0.18	0.18	0.06	0.21	0.21	0.03	0.18	0.18
Sat Flow, veh/h	1781	1082	668	1781	1542	278	1781	1603	227	1781	1535	285
Grp Volume(v), veh/h	44	0	233	33	0	144	56	0	266	22	0	211
Grp Sat Flow(s),veh/h/ln	1781	0	1750	1781	0	1820	1781	0	1830	1781	0	1819
Q Serve(g_s), s	0.9	0.0	4.7	0.7	0.0	2.6	1.1	0.0	5.0	0.5	0.0	4.0
Cycle Q Clear(g_c), s	0.9	0.0	4.7	0.7	0.0	2.6	1.1	0.0	5.0	0.5	0.0	4.0
Prop In Lane	1.00		0.38	1.00		0.15	1.00		0.12	1.00		0.16
Lane Grp Cap(c), veh/h	87	0	336	69	0	331	105	0	382	49	0	322
V/C Ratio(X)	0.50	0.00	0.69	0.48	0.00	0.44	0.53	0.00	0.70	0.45	0.00	0.65
Avail Cap(c_a), veh/h	950	0	1400	950	0	1456	950	0	1463	950	0	1455
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	14.1	17.7	0.0	13.6	17.1	0.0	13.7	18.0	0.0	14.4
Incr Delay (d2), s/veh	1.7	0.0	1.0	1.9	0.0	0.3	1.6	0.0	0.9	2.4	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.6	0.3	0.0	0.9	0.5	0.0	1.8	0.2	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.1	0.0	15.1	19.5	0.0	14.0	18.7	0.0	14.6	20.4	0.0	15.2
LnGrp LOS	B		B	B		B	B		B	C		B
Approach Vol, veh/h	277					177		322		233		
Approach Delay, s/veh	15.7					15.0		15.3		15.7		
Approach LOS	B					B		B		B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	11.8	6.0	12.8	6.5	12.2	7.2	11.6				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I), s	12.9	4.6	2.5	7.0	2.7	6.7	3.1	6.0				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.8	0.0	0.5	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Opening Year NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔		↔	↔	
Traffic Volume (veh/h)	0	0	0	60	0	240	0	520	50	300	850	0
Future Volume (veh/h)	0	0	0	60	0	240	0	520	50	300	850	0
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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	63	0	253	0	547	53	316	895	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	4	0	387	0	344	0	741	72	390	1983	0
Arrive On Green	0.00	0.00	0.00	0.22	0.00	0.22	0.00	0.23	0.23	0.22	0.56	0.00
Sat Flow, veh/h	0	1870	0	1779	0	1583	0	3360	316	1781	3647	0
Grp Volume(v), veh/h	0	0	0	63	0	253	0	297	303	316	895	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1779	0	1583	0	1777	1805	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	6.6	0.0	6.9	6.9	7.5	6.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.3	0.0	6.6	0.0	6.9	6.9	7.5	6.6	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	4	0	387	0	344	0	403	410	390	1983	0
V/C Ratio(X)	0.00	0.00	0.00	0.16	0.00	0.74	0.00	0.74	0.74	0.81	0.45	0.00
Avail Cap(c_a), veh/h	0	1260	0	1199	0	1067	0	1197	1216	1600	2395	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)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	14.1	0.0	16.2	0.0	16.0	16.0	16.5	5.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.2	0.0	1.0	1.0	1.6	0.1	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(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	2.2	0.0	2.4	2.5	2.7	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	14.2	0.0	17.4	0.0	17.0	17.0	18.1	5.9	0.0
LnGrp LOS				B				B	B	B	A	
Approach Vol, veh/h	0			316			600			1211		
Approach Delay, s/veh	0.0			16.8			17.0			9.1		
Approach LOS				B			B			A		
Timer - Assigned Phs	2			4	5	6	8					
Phs Duration (G+Y+Rc), s	29.8			14.7	14.7	15.1	0.0					
Change Period (Y+Rc), s	5.0			5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s	30.0			30.0	40.0	30.0	30.0					
Max Q Clear Time (g_c+I1), s	8.6			8.6	9.5	8.9	0.0					
Green Ext Time (p_c), s	2.4			1.1	0.4	1.2	0.0					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				12.4								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	24	30	0	10	9	343	10	10	381	1
Future Vol, veh/h	4	0	24	30	0	10	9	343	10	10	381	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	2	0	0
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	92	92	92	78	92	78	92	78	78	78	78	92
Heavy Vehicles, %	2	2	2	3	2	3	2	3	3	3	3	2
Mvmt Flow	4	0	26	38	0	13	10	440	13	13	488	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	988	990	489	997	984	449	489	0	0	455	0	0
Stage 1	515	515	-	469	469	-	-	-	-	-	-	-
Stage 2	473	475	-	528	515	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.13	6.52	6.23	4.12	-	-	4.13	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.13	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.13	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.527	4.018	3.327	2.218	-	-	2.227	-	-
Pot Cap-1 Maneuver	226	246	579	222	248	608	1074	-	-	1100	-	-
Stage 1	543	535	-	573	561	-	-	-	-	-	-	-
Stage 2	572	557	-	532	535	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	217	239	579	207	241	607	1074	-	-	1098	-	-
Mov Cap-2 Maneuver	217	239	-	207	241	-	-	-	-	-	-	-
Stage 1	536	526	-	565	553	-	-	-	-	-	-	-
Stage 2	553	549	-	500	526	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	13.2		23.3		0.2		0.2					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1074	-	-	468	248	1098	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.065	0.207	0.012	-	-				
HCM Ctrl Dly (s/v)	8.4	0	-	13.2	23.3	8.3	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q (veh)	0	-	-	0.2	0.8	0	-	-				

HCM 6th Signalized Intersection Summary 2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Opening Year PP AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	50	100	180	50	41	60	308	220	43	381	37
Future Volume (veh/h)	32	50	100	180	50	41	60	308	220	43	381	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	43	68	135	243	68	55	81	416	297	58	515	50
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	75	243	202	296	475	392	108	605	511	90	587	496
Arrive On Green	0.04	0.13	0.13	0.17	0.26	0.26	0.06	0.33	0.33	0.05	0.32	0.32
Sat Flow, veh/h	1767	1856	1541	1767	1856	1533	1767	1856	1568	1767	1856	1568
Grp Volume(v), veh/h	43	68	135	243	68	55	81	416	297	58	515	50
Grp Sat Flow(s),veh/h/ln	1767	1856	1541	1767	1856	1533	1767	1856	1568	1767	1856	1568
Q Serve(g_s), s	1.5	2.0	5.1	8.2	1.7	1.7	2.8	12.0	9.7	2.0	16.2	1.4
Cycle Q Clear(g_c), s	1.5	2.0	5.1	8.2	1.7	1.7	2.8	12.0	9.7	2.0	16.2	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	243	202	296	475	392	108	605	511	90	587	496
V/C Ratio(X)	0.58	0.28	0.67	0.82	0.14	0.14	0.75	0.69	0.58	0.64	0.88	0.10
Avail Cap(c_a), veh/h	574	903	750	860	1355	1119	574	1355	1145	574	1355	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	24.2	25.5	24.8	17.7	17.7	28.5	18.0	17.3	28.7	19.9	14.9
Incr Delay (d2), s/veh	2.6	0.2	1.4	2.2	0.1	0.1	4.0	0.5	0.4	2.8	1.7	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(50%),veh/ln	0.6	0.8	1.9	3.3	0.7	0.6	1.2	4.7	3.2	0.9	6.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.6	24.4	26.9	26.9	17.8	17.7	32.4	18.6	17.7	31.5	21.6	14.9
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		246			366			794			623	
Approach Delay, s/veh		27.0			23.9			19.6			22.0	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.3	13.1	8.8	24.5	7.6	20.8	8.1	25.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	20.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	10.2	7.1	4.8	18.2	3.5	3.7	4.0	14.0				
Green Ext Time (p_c), s	0.3	0.2	0.1	1.3	0.0	0.1	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			22.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary 3: Glen Cove Road & I-780 Westbound Off Ramp

Vallejo Rollingwood
Opening Year PP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕			↕	↕
Traffic Volume (veh/h)	0	0	0	180	0	96	570	492	0	0	420	251
Future Volume (veh/h)	0	0	0	180	0	96	570	492	0	0	420	251
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	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				220	0	117	695	600	0	0	512	306
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				251	0	222	1617	1434	0	0	548	327
Arrive On Green				0.14	0.00	0.14	0.79	1.00	0.00	0.00	0.26	0.26
Sat Flow, veh/h				1767	0	1569	3428	1856	0	0	2216	1266
Grp Volume(v), veh/h				220	0	117	695	600	0	0	425	393
Grp Sat Flow(s),veh/h/ln				1767	0	1569	1714	1856	0	0	1763	1626
Q Serve(g_s), s				13.4	0.0	7.6	7.2	0.0	0.0	0.0	25.9	26.0
Cycle Q Clear(g_c), s				13.4	0.0	7.6	7.2	0.0	0.0	0.0	25.9	26.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.78
Lane Grp Cap(c), veh/h				251	0	222	1617	1434	0	0	455	420
V/C Ratio(X)				0.88	0.00	0.53	0.43	0.42	0.00	0.00	0.93	0.94
Avail Cap(c_a), veh/h				374	0	332	1617	1434	0	0	486	448
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.62	0.62	0.00	0.00	0.68	0.68
Uniform Delay (d), s/veh				46.3	0.0	43.8	6.9	0.0	0.0	0.0	39.9	39.9
Incr Delay (d2), s/veh				10.5	0.0	0.7	0.0	0.6	0.0	0.0	21.8	23.5
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(50%),veh/ln				6.4	0.0	2.9	2.0	0.2	0.0	0.0	13.8	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				56.8	0.0	44.5	7.0	0.6	0.0	0.0	61.6	63.4
LnGrp LOS				E		D	A	A			E	E
Approach Vol, veh/h					337			1295			818	
Approach Delay, s/veh					52.5			4.0			62.5	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		89.7			56.6	33.1		20.3				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		77.3			42.3	30.3		23.3				
Max Q Clear Time (g_c+I1), s		2.0			9.2	28.0		15.4				
Green Ext Time (p_c), s		0.6			0.1	0.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				30.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary 4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Opening Year PP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	0	330	0	0	0	0	861	300	177	423	0
Future Volume (veh/h)	201	0	330	0	0	0	0	861	300	177	423	0
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	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	239	0	0				0	1025	357	211	504	0
Peak Hour Factor	0.84	0.84	0.84				0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	269	0					0	1499	517	235	1408	0
Arrive On Green	0.15	0.00	0.00				0.00	0.58	0.58	0.27	1.00	0.00
Sat Flow, veh/h	1767	0	1572				0	2665	886	1767	1856	0
Grp Volume(v), veh/h	239	0	0				0	699	683	211	504	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1695	1767	1856	0
Q Serve(g_s), s	14.6	0.0	0.0				0.0	30.2	31.0	12.7	0.0	0.0
Cycle Q Clear(g_c), s	14.6	0.0	0.0				0.0	30.2	31.0	12.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.52	1.00		0.00
Lane Grp Cap(c), veh/h	269	0					0	1027	988	235	1408	0
V/C Ratio(X)	0.89	0.00					0.00	0.68	0.69	0.90	0.36	0.00
Avail Cap(c_a), veh/h	647	0					0	1027	988	294	1408	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.89	0.89	0.86	0.86	0.00
Uniform Delay (d), s/veh	45.7	0.0	0.0				0.0	15.9	16.0	39.6	0.0	0.0
Incr Delay (d2), s/veh	4.0	0.0	0.0				0.0	3.3	3.5	19.3	0.6	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
%ile BackOfQ(50%),veh/ln	6.5	0.0	0.0				0.0	12.1	12.0	5.9	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.7	0.0	0.0				0.0	19.1	19.6	58.9	0.6	0.0
LnGrp LOS	D						B			B	E	A
Approach Vol, veh/h	239						1382			715		
Approach Delay, s/veh	49.7						19.3			17.8		
Approach LOS	D						B			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	19.4	69.2		21.4			88.6					
Change Period (Y+Rc), s	4.7	5.1		4.7			5.1					
Max Green Setting (Gmax), s	18.3	35.9		40.3			59.9					
Max Q Clear Time (g_c+1/4), s	14.7	33.0		16.6			2.0					
Green Ext Time (p_c), s	0.0	0.8		0.2			0.5					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	22.0											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Opening Year PP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	90	110	60	150	20	92	243	32	20	192	40
Future Volume (veh/h)	50	90	110	60	150	20	92	243	32	20	192	40
Initial Q (Qb), veh	0	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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	64	115	141	77	192	26	118	312	41	26	246	51
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	105	159	195	117	348	47	152	460	60	54	344	71
Arrive On Green	0.06	0.21	0.21	0.07	0.22	0.22	0.09	0.29	0.29	0.03	0.23	0.23
Sat Flow, veh/h	1767	754	925	1767	1598	216	1767	1605	211	1767	1488	309
Grp Volume(v), veh/h	64	0	256	77	0	218	118	0	353	26	0	297
Grp Sat Flow(s),veh/h/ln	1767	0	1679	1767	0	1814	1767	0	1816	1767	0	1797
Q Serve(g_s), s	1.7	0.0	7.0	2.1	0.0	5.3	3.2	0.0	8.5	0.7	0.0	7.5
Cycle Q Clear(g_c), s	1.7	0.0	7.0	2.1	0.0	5.3	3.2	0.0	8.5	0.7	0.0	7.5
Prop In Lane	1.00		0.55	1.00		0.12	1.00		0.12	1.00		0.17
Lane Grp Cap(c), veh/h	105	0	354	117	0	395	152	0	520	54	0	415
V/C Ratio(X)	0.61	0.00	0.72	0.66	0.00	0.55	0.77	0.00	0.68	0.48	0.00	0.72
Avail Cap(c_a), veh/h	717	0	1022	717	0	1105	717	0	1105	717	0	1094
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	18.1	22.5	0.0	17.1	22.0	0.0	15.6	23.5	0.0	17.5
Incr Delay (d2), s/veh	2.1	0.0	1.1	2.3	0.0	0.4	3.2	0.0	0.6	2.5	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.6	0.9	0.0	2.0	1.4	0.0	3.2	0.3	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.8	0.0	19.1	24.8	0.0	17.6	25.2	0.0	16.1	26.0	0.0	18.3
LnGrp LOS	C		B	C		B	C		B	C		B
Approach Vol, veh/h	320					295		471		323		
Approach Delay, s/veh	20.3					19.5		18.4		18.9		
Approach LOS	C					B		B		B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	15.7	6.5	19.1	8.3	15.4	9.2	16.4				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I1), s	13.8	7.3	2.7	10.5	4.1	9.0	5.2	9.5				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.1	0.0	0.6	0.1	0.9				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			19.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary 6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Opening Year PP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	0	0	0	30	0	180	0	921	30	120	593	0	
Future Volume (veh/h)	0	0	0	30	0	180	0	921	30	120	593	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1856	1870	1856	1856	1856	1856	1870	
Adj Flow Rate, veh/h	0	0	0	34	0	202	0	1035	34	135	666	0	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.92	0.89	0.92	0.89	0.89	0.89	0.89	0.92	
Percent Heavy Veh, %	2	2	2	3	2	3	2	3	3	3	3	2	
Cap, veh/h	0	2	0	262	0	235	0	2172	71	162	2682	0	
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.15	0.00	0.62	0.62	0.18	1.00	0.00	
Sat Flow, veh/h	0	1870	0	1767	0	1585	0	3576	114	1767	3618	0	
Grp Volume(v), veh/h	0	0	0	34	0	202	0	524	545	135	666	0	
Grp Sat Flow(s),veh/h/ln	0	1870	0	1767	0	1585	0	1763	1835	1767	1763	0	
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	13.7	0.0	17.5	17.5	8.1	0.0	0.0	
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	13.7	0.0	17.5	17.5	8.1	0.0	0.0	
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.06	1.00		0.00	
Lane Grp Cap(c), veh/h	0	2	0	262	0	235	0	1099	1144	162	2682	0	
V/C Ratio(X)	0.00	0.00	0.00	0.13	0.00	0.86	0.00	0.48	0.48	0.83	0.25	0.00	
Avail Cap(c_a), veh/h	0	204	0	434	0	389	0	1099	1144	402	2682	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.83	0.83	0.00	
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.7	0.0	45.7	0.0	11.1	11.1	44.1	0.0	0.0	
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	5.0	0.0	1.5	1.4	3.6	0.2	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(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	5.7	0.0	6.7	6.9	3.4	0.1	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d), s/veh	0.0	0.0	0.0	40.8	0.0	50.7	0.0	12.6	12.5	47.7	0.2	0.0	
LnGrp LOS				D				D	B	B	D	A	
Approach Vol, veh/h	0			236			1069			801			
Approach Delay, s/veh	0.0			49.3			12.5			8.2			
Approach LOS				D			B			A			
Timer - Assigned Phs	2			4		5	6	8					
Phs Duration (G+Y+Rc), s	88.7			21.3		15.1	73.6	0.0					
Change Period (Y+Rc), s	5.0			5.0		5.0	5.0	5.0					
Max Green Setting (Gmax), s	56.0			27.0		25.0	26.0	12.0					
Max Q Clear Time (g_c+I1), s	2.0			15.7		10.1	19.5	0.0					
Green Ext Time (p_c), s	1.7			0.6		0.1	1.6	0.0					
Intersection Summary													
HCM 6th Ctrl Delay, s/veh			15.0										
HCM 6th LOS			B										
Notes													

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	3	37	12	359	434	1
Future Vol, veh/h	3	37	12	359	434	1
Conflicting Peds, #/hr	0	0	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	40	13	390	472	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	889	473	473	0	-	0
Stage 1	473	-	-	-	-	-
Stage 2	416	-	-	-	-	-
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	314	591	1089	-	-	-
Stage 1	627	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	309	591	1089	-	-	-
Mov Cap-2 Maneuver	309	-	-	-	-	-
Stage 1	618	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	12.1	0.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1089	-	553	-	-	
HCM Lane V/C Ratio	0.012	-	0.079	-	-	
HCM Ctrl Dly (s/v)	8.3	0	12.1	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q (veh)	0	-	0.3	-	-	

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	19	20	0	10	36	402	30	10	294	4
Future Vol, veh/h	3	0	19	20	0	10	36	402	30	10	294	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
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	92	92	92	88	92	88	92	88	88	88	88	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	21	23	0	11	39	457	34	11	334	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	916	928	336	922	913	475	338	0	0	492	0	0
Stage 1	358	358	-	553	553	-	-	-	-	-	-	-
Stage 2	558	570	-	369	360	-	-	-	-	-	-	-
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	253	268	706	251	273	590	1221	-	-	1071	-	-
Stage 1	660	628	-	517	514	-	-	-	-	-	-	-
Stage 2	514	505	-	651	626	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	237	253	706	233	257	589	1221	-	-	1070	-	-
Mov Cap-2 Maneuver	237	253	-	233	257	-	-	-	-	-	-	-
Stage 1	631	620	-	494	491	-	-	-	-	-	-	-
Stage 2	482	482	-	624	618	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.8		19		0.6		0.3	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1221	-	-	556	292	1070	-
HCM Lane V/C Ratio	0.032	-	-	0.043	0.117	0.011	-
HCM Ctrl Dly (s/v)	8	0	-	11.8	19	8.4	0
HCM Lane LOS	A	A	-	B	C	A	A
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0.4	0	-

HCM 6th Signalized Intersection Summary
2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Opening Year PP PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	40	90	110	60	24	110	430	120	22	285	35
Future Volume (veh/h)	38	40	90	110	60	24	110	430	120	22	285	35
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		0.98	1.00		0.97	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	44	99	121	66	26	121	473	132	24	313	38
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	209	177	158	290	240	158	606	497	51	494	413
Arrive On Green	0.05	0.11	0.11	0.09	0.16	0.16	0.09	0.32	0.32	0.03	0.26	0.26
Sat Flow, veh/h	1781	1870	1585	1781	1870	1550	1781	1870	1535	1781	1870	1564
Grp Volume(v), veh/h	42	44	99	121	66	26	121	473	132	24	313	38
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1550	1781	1870	1535	1781	1870	1564
Q Serve(g_s), s	1.0	1.0	2.6	3.0	1.4	0.6	3.0	10.2	2.8	0.6	6.6	0.8
Cycle Q Clear(g_c), s	1.0	1.0	2.6	3.0	1.4	0.6	3.0	10.2	2.8	0.6	6.6	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	209	177	158	290	240	158	606	497	51	494	413
V/C Ratio(X)	0.52	0.21	0.56	0.76	0.23	0.11	0.77	0.78	0.27	0.47	0.63	0.09
Avail Cap(c_a), veh/h	1193	1253	1062	1193	1880	1557	796	1880	1542	796	1880	1572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	18.1	18.8	19.9	16.6	16.3	20.0	13.7	11.2	21.4	14.6	12.4
Incr Delay (d2), s/veh	1.9	0.2	1.0	2.9	0.1	0.1	2.9	0.8	0.1	2.4	0.5	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(50%),veh/ln	0.4	0.4	0.9	1.2	0.5	0.2	1.2	3.6	0.8	0.3	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.8	18.3	19.9	22.8	16.7	16.3	22.9	14.5	11.3	23.8	15.1	12.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		185			213			726			375	
Approach Delay, s/veh		20.2			20.1			15.3			15.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	10.0	9.0	16.8	7.0	11.9	6.3	19.5				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	30.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	5.0	4.6	5.0	8.6	3.0	3.4	2.6	12.2				
Green Ext Time (p_c), s	0.1	0.1	0.1	0.7	0.0	0.1	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			16.6									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

Vallejo Rollingwood

3: Glen Cove Road & I-780 Westbound On Ramp/I-780 Westbound Off Ramp Opening Year PP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	340	0	230	330	440	0	0	404	101
Future Volume (veh/h)	0	0	0	340	0	230	330	440	0	0	404	101
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				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				374	0	253	363	484	0	0	444	111
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				404	0	359	1590	1279	0	0	504	125
Arrive On Green				0.23	0.00	0.23	0.92	1.00	0.00	0.00	0.18	0.18
Sat Flow, veh/h				1781	0	1585	3456	1870	0	0	2915	700
Grp Volume(v), veh/h				374	0	253	363	484	0	0	278	277
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1870	0	0	1777	1744
Q Serve(g_s), s				21.6	0.0	15.4	1.1	0.0	0.0	0.0	16.0	16.3
Cycle Q Clear(g_c), s				21.6	0.0	15.4	1.1	0.0	0.0	0.0	16.0	16.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.40
Lane Grp Cap(c), veh/h				404	0	359	1590	1279	0	0	318	312
V/C Ratio(X)				0.93	0.00	0.70	0.23	0.38	0.00	0.00	0.88	0.89
Avail Cap(c_a), veh/h				565	0	503	1590	1279	0	0	462	454
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.00	0.00	0.80	0.80
Uniform Delay (d), s/veh				39.7	0.0	37.3	2.3	0.0	0.0	0.0	42.0	42.1
Incr Delay (d2), s/veh				14.6	0.0	1.0	0.0	0.6	0.0	0.0	22.8	24.6
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(50%),veh/ln				10.6	0.0	5.8	0.3	0.2	0.0	0.0	9.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.3	0.0	38.4	2.3	0.6	0.0	0.0	64.8	66.6
LnGrp LOS				D		D	A	A			E	E
Approach Vol, veh/h					627			847			555	
Approach Delay, s/veh					47.9			1.4			65.7	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.5			53.0	23.5		28.5				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		62.3			30.3	27.3		33.3				
Max Q Clear Time (g_c+I1), s		2.0			3.1	18.3		23.6				
Green Ext Time (p_c), s		0.4			0.1	0.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh											33.3	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary 4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Opening Year PP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↗		↖	↕	
Traffic Volume (veh/h)	196	0	570	0	0	0	0	574	230	122	632	0
Future Volume (veh/h)	196	0	570	0	0	0	0	574	230	122	632	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	202	0	0				0	592	237	126	652	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	234	0					0	1591	636	152	1450	0
Arrive On Green	0.13	0.00	0.00				0.00	0.65	0.65	0.17	1.00	0.00
Sat Flow, veh/h	1781	0	1585				0	2559	985	1781	1870	0
Grp Volume(v), veh/h	202	0	0				0	426	403	126	652	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1674	1781	1870	0
Q Serve(g_s), s	11.7	0.0	0.0				0.0	11.8	11.8	7.2	0.0	0.0
Cycle Q Clear(g_c), s	11.7	0.0	0.0				0.0	11.8	11.8	7.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.59	1.00		0.00
Lane Grp Cap(c), veh/h	234	0					0	1147	1080	152	1450	0
V/C Ratio(X)	0.86	0.00					0.00	0.37	0.37	0.83	0.45	0.00
Avail Cap(c_a), veh/h	938	0					0	1147	1080	226	1450	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.77	0.77	0.96	0.96	0.00
Uniform Delay (d), s/veh	44.7	0.0	0.0				0.0	8.7	8.7	42.8	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.7	0.8	9.3	1.0	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
%ile BackOfQ(50%),veh/ln	5.2	0.0	0.0				0.0	4.3	4.1	3.3	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.4	0.0	0.0				0.0	9.4	9.5	52.1	1.0	0.0
LnGrp LOS	D							A	A	D	A	
Approach Vol, veh/h	202						829			778		
Approach Delay, s/veh	48.4						9.4			9.2		
Approach LOS	D						A			A		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	13.7	72.9	18.5		86.5							
Change Period (Y+Rc), s	4.7	5.1	4.7		5.1							
Max Green Setting (Gmax), s	13.3	21.9	55.3		38.9							
Max Q Clear Time (g_c+I), s	19.2	13.8	13.7		2.0							
Green Ext Time (p_c), s	0.0	0.7	0.1		0.6							
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	13.7											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Opening Year PP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	130	82	32	110	20	52	212	31	20	164	30
Future Volume (veh/h)	40	130	82	32	110	20	52	212	31	20	164	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	144	91	36	122	22	58	236	34	22	182	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	206	130	74	286	52	107	338	49	49	275	50
Arrive On Green	0.05	0.19	0.19	0.04	0.19	0.19	0.06	0.21	0.21	0.03	0.18	0.18
Sat Flow, veh/h	1781	1071	677	1781	1542	278	1781	1599	230	1781	1541	279
Grp Volume(v), veh/h	44	0	235	36	0	144	58	0	270	22	0	215
Grp Sat Flow(s),veh/h/ln	1781	0	1748	1781	0	1820	1781	0	1829	1781	0	1820
Q Serve(g_s), s	0.9	0.0	4.8	0.8	0.0	2.7	1.2	0.0	5.2	0.5	0.0	4.2
Cycle Q Clear(g_c), s	0.9	0.0	4.8	0.8	0.0	2.7	1.2	0.0	5.2	0.5	0.0	4.2
Prop In Lane	1.00		0.39	1.00		0.15	1.00		0.13	1.00		0.15
Lane Grp Cap(c), veh/h	87	0	337	74	0	337	107	0	387	49	0	325
V/C Ratio(X)	0.51	0.00	0.70	0.49	0.00	0.43	0.54	0.00	0.70	0.45	0.00	0.66
Avail Cap(c_a), veh/h	939	0	1382	939	0	1439	939	0	1445	939	0	1438
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	14.3	17.8	0.0	13.7	17.3	0.0	13.8	18.2	0.0	14.5
Incr Delay (d2), s/veh	1.7	0.0	1.0	1.8	0.0	0.3	1.6	0.0	0.9	2.4	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.7	0.3	0.0	1.0	0.5	0.0	1.9	0.2	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.3	0.0	15.3	19.6	0.0	14.0	18.9	0.0	14.7	20.6	0.0	15.4
LnGrp LOS	B		B	B		B	B		B	C		B
Approach Vol, veh/h	279		180			328			237			
Approach Delay, s/veh	15.9		15.1			15.4			15.9			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.9	12.0	6.0	13.0	6.6	12.3	7.3	11.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I), s	12.5	4.7	2.5	7.2	2.8	6.8	3.2	6.2				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.8	0.0	0.5	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.6									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Opening Year PP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕		↗	↘	
Traffic Volume (veh/h)	0	0	0	60	0	240	0	524	50	300	852	0
Future Volume (veh/h)	0	0	0	60	0	240	0	524	50	300	852	0
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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	63	0	253	0	552	53	316	897	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	4	0	386	0	344	0	746	71	390	1986	0
Arrive On Green	0.00	0.00	0.00	0.22	0.00	0.22	0.00	0.23	0.23	0.22	0.56	0.00
Sat Flow, veh/h	0	1870	0	1779	0	1583	0	3363	313	1781	3647	0
Grp Volume(v), veh/h	0	0	0	63	0	253	0	299	306	316	897	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1779	0	1583	0	1777	1806	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	6.7	0.0	7.0	7.0	7.5	6.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.3	0.0	6.7	0.0	7.0	7.0	7.5	6.7	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	4	0	386	0	344	0	405	412	390	1986	0
V/C Ratio(X)	0.00	0.00	0.00	0.16	0.00	0.74	0.00	0.74	0.74	0.81	0.45	0.00
Avail Cap(c_a), veh/h	0	1256	0	1195	0	1063	0	1194	1213	1595	2387	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)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	14.2	0.0	16.3	0.0	16.0	16.0	16.6	5.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.2	0.0	1.0	1.0	1.6	0.1	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(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	2.2	0.0	2.4	2.5	2.7	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	14.3	0.0	17.4	0.0	17.0	17.0	18.1	5.9	0.0
LnGrp LOS				B				B	B	B	A	
Approach Vol, veh/h	0			316			605			1213		
Approach Delay, s/veh	0.0			16.8			17.0			9.1		
Approach LOS				B			B			A		
Timer - Assigned Phs	2			4	5	6	8					
Phs Duration (G+Y+Rc), s	30.0			14.7	14.8	15.2	0.0					
Change Period (Y+Rc), s	5.0			5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s	30.0			30.0	40.0	30.0	30.0					
Max Q Clear Time (g_c+l1), s	8.7			8.7	9.5	9.0	0.0					
Green Ext Time (p_c), s	2.4			1.1	0.4	1.2	0.0					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				12.5								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	23	36	466	329	4
Future Vol, veh/h	2	23	36	466	329	4
Conflicting Peds, #/hr	0	0	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	25	39	507	358	4

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	945	360	362	0	-	0
Stage 1	360	-	-	-	-	-
Stage 2	585	-	-	-	-	-
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	291	684	1197	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	278	684	1197	-	-	-
Mov Cap-2 Maneuver	278	-	-	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	557	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.2	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1197	-	612	-	-
HCM Lane V/C Ratio	0.033	-	0.044	-	-
HCM Ctrl Dly (s/v)	8.1	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q (veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	10	380	10	10	410
Future Vol, veh/h	30	10	380	10	10	410
Conflicting Peds, #/hr	0	0	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	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	38	13	487	13	13	526
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1048	496	0	0	502	0
Stage 1	496	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	251	572	-	-	1057	-
Stage 1	610	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	246	571	-	-	1055	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	20.3	0		0.2		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	287	1055	-	
HCM Lane V/C Ratio	-	-	0.179	0.012	-	
HCM Control Delay (s/veh)	-	-	20.3	8.5	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q (veh)	-	-	0.6	0	-	

HCM 6th Signalized Intersection Summary

2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Cumulative NP AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	50	110	210	60	40	70	320	240	40	360	30
Future Volume (veh/h)	30	50	110	210	60	40	70	320	240	40	360	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	41	68	149	284	81	54	95	432	324	54	486	41
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	71	255	212	336	533	440	123	594	502	84	553	467
Arrive On Green	0.04	0.14	0.14	0.19	0.29	0.29	0.07	0.32	0.32	0.05	0.30	0.30
Sat Flow, veh/h	1767	1856	1542	1767	1856	1534	1767	1856	1568	1767	1856	1567
Grp Volume(v), veh/h	41	68	149	284	81	54	95	432	324	54	486	41
Grp Sat Flow(s),veh/h/ln	1767	1856	1542	1767	1856	1534	1767	1856	1568	1767	1856	1567
Q Serve(g_s), s	1.5	2.2	6.1	10.2	2.1	1.7	3.5	13.5	11.6	2.0	16.3	1.2
Cycle Q Clear(g_c), s	1.5	2.2	6.1	10.2	2.1	1.7	3.5	13.5	11.6	2.0	16.3	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	255	212	336	533	440	123	594	502	84	553	467
V/C Ratio(X)	0.58	0.27	0.70	0.85	0.15	0.12	0.77	0.73	0.65	0.64	0.88	0.09
Avail Cap(c_a), veh/h	539	849	705	809	1274	1053	539	1274	1076	539	1274	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	25.3	27.0	25.6	17.4	17.3	30.0	19.8	19.1	30.7	21.9	16.6
Incr Delay (d2), s/veh	2.8	0.2	1.6	2.3	0.0	0.0	3.8	0.6	0.5	3.0	1.8	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(50%),veh/ln	0.7	0.9	2.2	4.1	0.8	0.6	1.5	5.4	4.0	0.9	6.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.7	25.5	28.6	27.9	17.5	17.3	33.8	20.4	19.6	33.6	23.7	16.6
LnGrp LOS	C	C	C	C	B	B	C	C	B	C	C	B
Approach Vol, veh/h	258			419			851			581		
Approach Delay, s/veh	28.6			24.5			21.6			24.1		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	14.0	9.6	24.5	7.6	23.8	8.1	26.0				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	20.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	12.2	8.1	5.5	18.3	3.5	4.1	4.0	15.5				
Green Ext Time (p_c), s	0.4	0.2	0.1	1.2	0.0	0.2	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	23.7											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

3: Glen Cove Road & I-780 Westbound Off Ramp

Vallejo Rollingwood
Cumulative NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	190	0	100	610	520	0	0	430	230
Future Volume (veh/h)	0	0	0	190	0	100	610	520	0	0	430	230
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	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				232	0	122	744	634	0	0	524	280
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				262	0	233	1611	1422	0	0	563	300
Arrive On Green				0.15	0.00	0.15	0.78	1.00	0.00	0.00	0.25	0.25
Sat Flow, veh/h				1767	0	1569	3428	1856	0	0	2313	1183
Grp Volume(v), veh/h				232	0	122	744	634	0	0	416	388
Grp Sat Flow(s),veh/h/ln				1767	0	1569	1714	1856	0	0	1763	1641
Q Serve(g_s), s				14.2	0.0	7.9	8.1	0.0	0.0	0.0	25.3	25.5
Cycle Q Clear(g_c), s				14.2	0.0	7.9	8.1	0.0	0.0	0.0	25.3	25.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.72
Lane Grp Cap(c), veh/h				262	0	233	1611	1422	0	0	447	416
V/C Ratio(X)				0.88	0.00	0.52	0.46	0.45	0.00	0.00	0.93	0.93
Avail Cap(c_a), veh/h				374	0	332	1611	1422	0	0	486	452
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.53	0.53	0.00	0.00	0.63	0.63
Uniform Delay (d), s/veh				45.9	0.0	43.3	7.2	0.0	0.0	0.0	40.1	40.1
Incr Delay (d2), s/veh				12.7	0.0	0.7	0.0	0.5	0.0	0.0	20.4	21.9
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.9	0.0	3.0	2.2	0.2	0.0	0.0	13.4	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				58.6	0.0	43.9	7.2	0.5	0.0	0.0	60.5	62.1
LnGrp LOS				E		D	A	A			E	E
Approach Vol, veh/h					354			1378			804	
Approach Delay, s/veh					53.6			4.1			61.3	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		89.0			56.4	32.6		21.0				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		77.3			42.3	30.3		23.3				
Max Q Clear Time (g_c+I1), s		2.0			10.1	27.5		16.2				
Green Ext Time (p_c), s		0.6			0.1	0.5		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				29.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Cumulative NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↰	↱	↰	↱	
Traffic Volume (veh/h)	200	0	350	0	0	0	0	930	330	170	450	0
Future Volume (veh/h)	200	0	350	0	0	0	0	930	330	170	450	0
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	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	238	0	0				0	1107	393	202	536	0
Peak Hour Factor	0.84	0.84	0.84				0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	268	0					0	1508	526	227	1409	0
Arrive On Green	0.15	0.00	0.00				0.00	0.59	0.59	0.26	1.00	0.00
Sat Flow, veh/h	1767	0	1572				0	2656	894	1767	1856	0
Grp Volume(v), veh/h	238	0	0				0	755	745	202	536	0
Grp Sat Flow(s), veh/h/ln	1767	0	1572				0	1763	1694	1767	1856	0
Q Serve(g_s), s	14.5	0.0	0.0				0.0	34.0	35.5	12.1	0.0	0.0
Cycle Q Clear(g_c), s	14.5	0.0	0.0				0.0	34.0	35.5	12.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.53	1.00		0.00
Lane Grp Cap(c), veh/h	268	0					0	1037	997	227	1409	0
V/C Ratio(X)	0.89	0.00					0.00	0.73	0.75	0.89	0.38	0.00
Avail Cap(c_a), veh/h	647	0					0	1037	997	294	1409	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.87	0.87	0.85	0.85	0.00
Uniform Delay (d), s/veh	45.7	0.0	0.0				0.0	16.3	16.6	40.1	0.0	0.0
Incr Delay (d2), s/veh	3.9	0.0	0.0				0.0	3.9	4.5	17.3	0.7	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
%ile BackOfQ(50%),veh/ln	6.4	0.0	0.0				0.0	13.6	13.8	5.6	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.7	0.0	0.0				0.0	20.2	21.1	57.5	0.7	0.0
LnGrp LOS	D							C	C	E	A	
Approach Vol, veh/h	238						1500			738		
Approach Delay, s/veh	49.7						20.7			16.2		
Approach LOS	D						C			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	69.8	69.8		21.4			88.6					
Change Period (Y+Rc), s	4.7	5.1		4.7			5.1					
Max Green Setting (Gmax), s	35.9	35.9		40.3			59.9					
Max Q Clear Time (g_c+14), s	37.5	37.5		16.5			2.0					
Green Ext Time (p_c), s	0.0	0.0		0.2			0.5					

Intersection Summary

HCM 6th Ctrl Delay, s/veh	22.1
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Cumulative NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	100	130	60	160	20	100	260	30	20	210	50
Future Volume (veh/h)	60	100	130	60	160	20	100	260	30	20	210	50
Initial Q (Qb), veh	0	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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	77	128	167	77	205	26	128	333	38	26	269	64
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	112	166	217	112	369	47	165	505	58	53	355	84
Arrive On Green	0.06	0.23	0.23	0.06	0.23	0.23	0.09	0.31	0.31	0.03	0.25	0.25
Sat Flow, veh/h	1767	727	948	1767	1612	204	1767	1634	186	1767	1446	344
Grp Volume(v), veh/h	77	0	295	77	0	231	128	0	371	26	0	333
Grp Sat Flow(s),veh/h/ln	1767	0	1675	1767	0	1817	1767	0	1821	1767	0	1790
Q Serve(g_s), s	2.3	0.0	8.9	2.3	0.0	6.1	3.8	0.0	9.6	0.8	0.0	9.3
Cycle Q Clear(g_c), s	2.3	0.0	8.9	2.3	0.0	6.1	3.8	0.0	9.6	0.8	0.0	9.3
Prop In Lane	1.00		0.57	1.00		0.11	1.00		0.10	1.00		0.19
Lane Grp Cap(c), veh/h	112	0	383	112	0	415	165	0	563	53	0	440
V/C Ratio(X)	0.69	0.00	0.77	0.69	0.00	0.56	0.78	0.00	0.66	0.49	0.00	0.76
Avail Cap(c_a), veh/h	652	0	927	652	0	1006	652	0	1008	652	0	991
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.9	0.0	19.6	24.9	0.0	18.5	24.0	0.0	16.2	25.9	0.0	18.9
Incr Delay (d2), s/veh	2.8	0.0	1.2	2.8	0.0	0.4	2.9	0.0	0.5	2.6	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.3	1.0	0.0	2.4	1.6	0.0	3.7	0.4	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.6	0.0	20.8	27.6	0.0	18.9	26.9	0.0	16.7	28.5	0.0	20.0
LnGrp LOS	C		C	C		B	C		B	C		B
Approach Vol, veh/h	372		308			499			359			
Approach Delay, s/veh	22.2		21.1			19.4			20.6			
Approach LOS	C		C			B			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	17.4	6.6	21.7	8.4	17.4	10.1	18.3				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I4.3), s	14.3	8.1	2.8	11.6	4.3	10.9	5.8	11.3				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.2	0.0	0.7	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			20.7									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Cumulative NP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	0	0	0	30	0	190	0	990	30	130	640	0	
Future Volume (veh/h)	0	0	0	30	0	190	0	990	30	130	640	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1856	1870	1856	1856	1856	1856	1870	
Adj Flow Rate, veh/h	0	0	0	34	0	213	0	1112	34	146	719	0	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.92	0.89	0.92	0.89	0.89	0.89	0.89	0.92	
Percent Heavy Veh, %	2	2	2	3	2	3	2	3	3	3	3	2	
Cap, veh/h	0	2	0	274	0	246	0	2132	65	173	2658	0	
Arrive On Green	0.00	0.00	0.00	0.16	0.00	0.16	0.00	0.61	0.61	0.20	1.00	0.00	
Sat Flow, veh/h	0	1870	0	1767	0	1585	0	3585	107	1767	3618	0	
Grp Volume(v), veh/h	0	0	0	34	0	213	0	561	585	146	719	0	
Grp Sat Flow(s),veh/h/ln	0	1870	0	1767	0	1585	0	1763	1836	1767	1763	0	
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	14.4	0.0	20.0	20.0	8.8	0.0	0.0	
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	14.4	0.0	20.0	20.0	8.8	0.0	0.0	
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.06	1.00		0.00	
Lane Grp Cap(c), veh/h	0	2	0	274	0	246	0	1076	1121	173	2658	0	
V/C Ratio(X)	0.00	0.00	0.00	0.12	0.00	0.87	0.00	0.52	0.52	0.84	0.27	0.00	
Avail Cap(c_a), veh/h	0	204	0	434	0	389	0	1076	1121	402	2658	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.79	0.79	0.00	
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.0	0.0	45.3	0.0	12.3	12.3	43.4	0.0	0.0	
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	7.1	0.0	1.8	1.7	3.4	0.2	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(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	6.1	0.0	7.8	8.1	3.6	0.1	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d), s/veh	0.0	0.0	0.0	40.1	0.0	52.4	0.0	14.1	14.0	46.8	0.2	0.0	
LnGrp LOS				D				D	B	B	D	A	
Approach Vol, veh/h	0			247			1146			865			
Approach Delay, s/veh	0.0			50.7			14.0			8.1			
Approach LOS				D			B			A			
Timer - Assigned Phs	2			4		5	6	8					
Phs Duration (G+Y+Rc), s	87.9			22.1		15.8	72.1	0.0					
Change Period (Y+Rc), s	5.0			5.0		5.0	5.0	5.0					
Max Green Setting (Gmax), s	56.0			27.0		25.0	26.0	12.0					
Max Q Clear Time (g_c+l1), s	2.0			16.4		10.8	22.0	0.0					
Green Ext Time (p_c), s	1.9			0.7		0.1	1.3	0.0					

Intersection Summary

HCM 6th Ctrl Delay, s/veh 15.8
HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	20	10	440	30	10	310
Future Vol, veh/h	20	10	440	30	10	310
Conflicting Peds, #/hr	0	0	0	1	1	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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	11	500	34	11	352
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	892	518	0	0	535	0
Stage 1	518	-	-	-	-	-
Stage 2	374	-	-	-	-	-
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	312	558	-	-	1033	-
Stage 1	598	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	308	557	-	-	1032	-
Mov Cap-2 Maneuver	308	-	-	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	687	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	16	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	362	1032	-	
HCM Lane V/C Ratio	-	-	0.094	0.011	-	
HCM Control Delay (s/veh)	-	-	16	8.5	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q (veh)	-	-	0.3	0	-	

HCM 6th Signalized Intersection Summary

2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Cumulative NP PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	50	100	130	70	30	120	410	130	20	270	30
Future Volume (veh/h)	30	50	100	130	70	30	120	410	130	20	270	30
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		0.98	1.00		0.97	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	55	110	143	77	33	132	451	143	22	297	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	212	180	187	339	281	172	585	480	48	454	379
Arrive On Green	0.04	0.11	0.11	0.11	0.18	0.18	0.10	0.31	0.31	0.03	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	1870	1550	1781	1870	1534	1781	1870	1562
Grp Volume(v), veh/h	33	55	110	143	77	33	132	451	143	22	297	33
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1550	1781	1870	1534	1781	1870	1562
Q Serve(g_s), s	0.8	1.2	3.0	3.5	1.6	0.8	3.3	9.9	3.2	0.6	6.5	0.7
Cycle Q Clear(g_c), s	0.8	1.2	3.0	3.5	1.6	0.8	3.3	9.9	3.2	0.6	6.5	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	67	212	180	187	339	281	172	585	480	48	454	379
V/C Ratio(X)	0.49	0.26	0.61	0.76	0.23	0.12	0.77	0.77	0.30	0.46	0.65	0.09
Avail Cap(c_a), veh/h	1181	1240	1051	1181	1861	1542	788	1861	1526	788	1861	1554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	18.3	19.1	19.7	15.8	15.5	19.9	14.1	11.8	21.7	15.4	13.3
Incr Delay (d2), s/veh	2.1	0.2	1.3	2.4	0.1	0.1	2.7	0.8	0.1	2.6	0.6	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(50%),veh/ln	0.3	0.5	1.0	1.3	0.6	0.3	1.3	3.5	0.9	0.2	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.4	18.6	20.4	22.1	15.9	15.6	22.6	14.9	11.9	24.3	16.0	13.3
LnGrp LOS	C	B	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h	198				253				726			
Approach Delay, s/veh	20.4				19.4				15.7			
Approach LOS	C				B				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	10.1	9.4	16.0	6.7	13.2	6.2	19.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	30.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	5.5	5.0	5.3	8.5	2.8	3.6	2.6	11.9				
Green Ext Time (p_c), s	0.2	0.1	0.1	0.7	0.0	0.1	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	17.1											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

Vallejo Rollingwood

3: Glen Cove Road & I-780 Westbound On Ramp/I-780 Westbound Off Ramp

Cumulative NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔	↔	↔	↔			↔	↔
Traffic Volume (veh/h)	0	0	0	370	0	230	350	430	0	0	420	90
Future Volume (veh/h)	0	0	0	370	0	230	350	430	0	0	420	90
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				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				407	0	253	385	473	0	0	462	99
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				436	0	388	1524	1245	0	0	524	111
Arrive On Green				0.25	0.00	0.25	0.88	1.00	0.00	0.00	0.18	0.18
Sat Flow, veh/h				1781	0	1585	3456	1870	0	0	3008	621
Grp Volume(v), veh/h				407	0	253	385	473	0	0	280	281
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1870	0	0	1777	1759
Q Serve(g_s), s				23.5	0.0	15.1	1.8	0.0	0.0	0.0	16.1	16.4
Cycle Q Clear(g_c), s				23.5	0.0	15.1	1.8	0.0	0.0	0.0	16.1	16.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.35
Lane Grp Cap(c), veh/h				436	0	388	1524	1245	0	0	319	316
V/C Ratio(X)				0.93	0.00	0.65	0.25	0.38	0.00	0.00	0.88	0.89
Avail Cap(c_a), veh/h				565	0	503	1524	1245	0	0	462	457
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.61	0.61	0.00	0.00	0.80	0.80
Uniform Delay (d), s/veh				38.8	0.0	35.6	3.6	0.0	0.0	0.0	42.0	42.0
Incr Delay (d2), s/veh				17.5	0.0	0.7	0.0	0.5	0.0	0.0	23.0	24.4
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(50%),veh/ln				11.9	0.0	5.6	0.6	0.2	0.0	0.0	9.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				56.3	0.0	36.4	3.6	0.5	0.0	0.0	65.0	66.4
LnGrp LOS				E		D	A	A			E	E
Approach Vol, veh/h					660			858			561	
Approach Delay, s/veh					48.7			1.9			65.7	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		74.6			51.0	23.6		30.4				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		62.3			30.3	27.3		33.3				
Max Q Clear Time (g_c+I1), s		2.0			3.8	18.4		25.5				
Green Ext Time (p_c), s		0.4			0.1	0.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh											34.0	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary

4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Cumulative NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↰	↱	↰	↱	
Traffic Volume (veh/h)	170	0	610	0	0	0	0	610	250	120	670	0
Future Volume (veh/h)	170	0	610	0	0	0	0	610	250	120	670	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	175	0	0				0	629	258	124	691	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	206	0					0	1618	663	150	1479	0
Arrive On Green	0.12	0.00	0.00				0.00	0.66	0.66	0.17	1.00	0.00
Sat Flow, veh/h	1781	0	1585				0	2538	1002	1781	1870	0
Grp Volume(v), veh/h	175	0	0				0	457	430	124	691	0
Grp Sat Flow(s), veh/h/ln	1781	0	1585				0	1777	1670	1781	1870	0
Q Serve(g_s), s	10.1	0.0	0.0				0.0	12.3	12.3	7.1	0.0	0.0
Cycle Q Clear(g_c), s	10.1	0.0	0.0				0.0	12.3	12.3	7.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.60	1.00		0.00
Lane Grp Cap(c), veh/h	206	0					0	1176	1106	150	1479	0
V/C Ratio(X)	0.85	0.00					0.00	0.39	0.39	0.83	0.47	0.00
Avail Cap(c_a), veh/h	938	0					0	1176	1106	226	1479	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.77	0.77	0.95	0.95	0.00
Uniform Delay (d), s/veh	45.5	0.0	0.0				0.0	8.1	8.1	42.9	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.7	0.8	8.5	1.0	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
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.0				0.0	4.4	4.1	3.2	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.2	0.0	0.0				0.0	8.8	8.9	51.4	1.0	0.0
LnGrp LOS	D							A	A	D	A	
Approach Vol, veh/h	175						887			815		
Approach Delay, s/veh	49.2						8.8			8.7		
Approach LOS	D						A			A		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	13.5	74.6		16.9			88.1					
Change Period (Y+Rc), s	4.7	5.1		4.7			5.1					
Max Green Setting (Gmax), s	13.3	21.9		55.3			38.9					
Max Q Clear Time (g_c+I), s	19.1	14.3		12.1			2.0					
Green Ext Time (p_c), s	0.0	0.8		0.1			0.7					

Intersection Summary

HCM 6th Ctrl Delay, s/veh	12.5
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Cumulative NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	140	80	30	130	30	60	230	30	20	180	30
Future Volume (veh/h)	50	140	80	30	130	30	60	230	30	20	180	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	156	89	33	144	33	67	256	33	22	200	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	219	125	69	260	60	118	368	47	48	294	48
Arrive On Green	0.06	0.20	0.20	0.04	0.18	0.18	0.07	0.23	0.23	0.03	0.19	0.19
Sat Flow, veh/h	1781	1118	638	1781	1472	337	1781	1623	209	1781	1566	258
Grp Volume(v), veh/h	56	0	245	33	0	177	67	0	289	22	0	233
Grp Sat Flow(s),veh/h/ln	1781	0	1756	1781	0	1810	1781	0	1833	1781	0	1824
Q Serve(g_s), s	1.2	0.0	5.1	0.7	0.0	3.5	1.4	0.0	5.7	0.5	0.0	4.7
Cycle Q Clear(g_c), s	1.2	0.0	5.1	0.7	0.0	3.5	1.4	0.0	5.7	0.5	0.0	4.7
Prop In Lane	1.00		0.36	1.00		0.19	1.00		0.11	1.00		0.14
Lane Grp Cap(c), veh/h	104	0	344	69	0	319	118	0	415	48	0	342
V/C Ratio(X)	0.54	0.00	0.71	0.48	0.00	0.55	0.57	0.00	0.70	0.45	0.00	0.68
Avail Cap(c_a), veh/h	911	0	1347	911	0	1389	911	0	1407	911	0	1400
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	14.7	18.4	0.0	14.7	17.7	0.0	13.9	18.7	0.0	14.8
Incr Delay (d2), s/veh	1.6	0.0	1.0	1.9	0.0	0.6	1.6	0.0	0.8	2.5	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.8	0.3	0.0	1.3	0.6	0.0	2.1	0.2	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.5	0.0	15.7	20.3	0.0	15.3	19.3	0.0	14.7	21.2	0.0	15.7
LnGrp LOS	B		B	C		B	B		B	C		B
Approach Vol, veh/h	301					210		356		255		
Approach Delay, s/veh	16.4					16.1		15.5		16.2		
Approach LOS	B					B		B		B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	11.9	6.1	13.9	6.5	12.7	7.6	12.3				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I), s	13.2	5.5	2.5	7.7	2.7	7.1	3.4	6.7				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.9	0.0	0.6	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			16.0									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Cumulative NP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕		↗	↘	
Traffic Volume (veh/h)	0	0	0	60	0	260	0	560	50	320	910	0
Future Volume (veh/h)	0	0	0	60	0	260	0	560	50	320	910	0
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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	63	0	274	0	589	53	337	958	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	4	0	405	0	361	0	771	69	407	2011	0
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.00	0.23	0.23	0.23	0.57	0.00
Sat Flow, veh/h	0	1870	0	1779	0	1583	0	3384	296	1781	3647	0
Grp Volume(v), veh/h	0	0	0	63	0	274	0	317	325	337	958	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1779	0	1583	0	1777	1809	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	7.8	0.0	8.1	8.1	8.7	7.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.4	0.0	7.8	0.0	8.1	8.1	8.7	7.8	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.16	1.00		0.00
Lane Grp Cap(c), veh/h	0	4	0	405	0	361	0	416	424	407	2011	0
V/C Ratio(X)	0.00	0.00	0.00	0.16	0.00	0.76	0.00	0.76	0.77	0.83	0.48	0.00
Avail Cap(c_a), veh/h	0	1157	0	1101	0	979	0	1099	1120	1470	2199	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)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.0	0.0	17.5	0.0	17.3	17.3	17.8	6.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.3	0.0	1.1	1.1	1.7	0.1	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(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	2.6	0.0	2.9	3.0	3.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	15.0	0.0	18.7	0.0	18.4	18.4	19.5	6.3	0.0
LnGrp LOS				B				B	B	B	A	
Approach Vol, veh/h	0			337			642			1295		
Approach Delay, s/veh	0.0			18.0			18.4			9.7		
Approach LOS				B			B			A		
Timer - Assigned Phs	2			4	5	6	8					
Phs Duration (G+Y+Rc), s	32.4			16.0	16.1	16.4	0.0					
Change Period (Y+Rc), s	5.0			5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s	30.0			30.0	40.0	30.0	30.0					
Max Q Clear Time (g_c+l1), s	9.8			9.8	10.7	10.1	0.0					
Green Ext Time (p_c), s	2.5			1.2	0.5	1.2	0.0					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	13.4											
HCM 6th LOS	B											

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	24	30	0	10	9	383	10	10	411	1
Future Vol, veh/h	4	0	24	30	0	10	9	383	10	10	411	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	2	0	0
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	92	92	92	78	92	78	92	78	78	78	78	92
Heavy Vehicles, %	2	2	2	3	2	3	2	3	3	3	3	2
Mvmt Flow	4	0	26	38	0	13	10	491	13	13	527	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1078	1080	528	1087	1074	500	528	0	0	506	0	0
Stage 1	554	554	-	520	520	-	-	-	-	-	-	-
Stage 2	524	526	-	567	554	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.13	6.52	6.23	4.12	-	-	4.13	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.13	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.13	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.527	4.018	3.327	2.218	-	-	2.227	-	-
Pot Cap-1 Maneuver	196	218	550	193	220	569	1039	-	-	1054	-	-
Stage 1	517	514	-	537	532	-	-	-	-	-	-	-
Stage 2	537	529	-	507	514	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	187	211	550	179	213	568	1039	-	-	1052	-	-
Mov Cap-2 Maneuver	187	211	-	179	213	-	-	-	-	-	-	-
Stage 1	510	505	-	529	524	-	-	-	-	-	-	-
Stage 2	518	521	-	475	505	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14	26.8	0.2	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1039	-	-	431	216	1052	-
HCM Lane V/C Ratio	0.009	-	-	0.071	0.237	0.012	-
HCM Ctrl Dly (s/v)	8.5	0	-	14	26.8	8.5	0
HCM Lane LOS	A	A	-	B	D	A	A
HCM 95th %tile Q (veh)	0	-	-	0.2	0.9	0	-

HCM 6th Signalized Intersection Summary 2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Cumulative PP AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	50	110	210	60	41	70	338	240	43	411	37
Future Volume (veh/h)	32	50	110	210	60	41	70	338	240	43	411	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	43	68	149	284	81	55	95	457	324	58	555	50
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	71	249	207	331	522	432	123	657	555	84	616	521
Arrive On Green	0.04	0.13	0.13	0.19	0.28	0.28	0.07	0.35	0.35	0.05	0.33	0.33
Sat Flow, veh/h	1767	1856	1542	1767	1856	1534	1767	1856	1568	1767	1856	1568
Grp Volume(v), veh/h	43	68	149	284	81	55	95	457	324	58	555	50
Grp Sat Flow(s),veh/h/ln	1767	1856	1542	1767	1856	1534	1767	1856	1568	1767	1856	1568
Q Serve(g_s), s	1.7	2.4	6.7	11.2	2.4	1.9	3.8	15.3	12.2	2.3	20.6	1.6
Cycle Q Clear(g_c), s	1.7	2.4	6.7	11.2	2.4	1.9	3.8	15.3	12.2	2.3	20.6	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	249	207	331	522	432	123	657	555	84	616	521
V/C Ratio(X)	0.61	0.27	0.72	0.86	0.16	0.13	0.77	0.70	0.58	0.69	0.90	0.10
Avail Cap(c_a), veh/h	489	770	640	733	1155	955	489	1155	976	489	1155	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	28.1	30.0	28.4	19.5	19.4	33.1	20.0	19.0	33.9	23.0	16.7
Incr Delay (d2), s/veh	3.1	0.2	1.8	2.5	0.1	0.0	3.8	0.5	0.4	3.7	2.0	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(50%),veh/ln	0.8	1.0	2.5	4.6	0.9	0.7	1.7	6.2	4.2	1.1	8.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	28.4	31.8	31.0	19.6	19.4	36.9	20.5	19.4	37.6	25.0	16.7
LnGrp LOS	D	C	C	C	B	B	D	C	B	D	C	B
Approach Vol, veh/h	260				420				876			
Approach Delay, s/veh	31.8				27.2				21.9			
Approach LOS	C				C				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	14.7	10.0	29.0	7.9	25.4	8.4	30.6				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	20.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	13.2	8.7	5.8	22.6	3.7	4.4	4.3	17.3				
Green Ext Time (p_c), s	0.4	0.2	0.1	1.4	0.0	0.2	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	25.1											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 3: Glen Cove Road & I-780 Westbound Off Ramp

Vallejo Rollingwood
Cumulative PP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↶	↶	↶	↶			↷	↷
Traffic Volume (veh/h)	0	0	0	190	0	106	610	532	0	0	450	261
Future Volume (veh/h)	0	0	0	190	0	106	610	532	0	0	450	261
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	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				232	0	129	744	649	0	0	549	318
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				262	0	233	1553	1422	0	0	581	336
Arrive On Green				0.15	0.00	0.15	0.76	1.00	0.00	0.00	0.27	0.27
Sat Flow, veh/h				1767	0	1569	3428	1856	0	0	2242	1244
Grp Volume(v), veh/h				232	0	129	744	649	0	0	450	417
Grp Sat Flow(s),veh/h/ln				1767	0	1569	1714	1856	0	0	1763	1630
Q Serve(g_s), s				14.2	0.0	8.4	9.1	0.0	0.0	0.0	27.5	27.6
Cycle Q Clear(g_c), s				14.2	0.0	8.4	9.1	0.0	0.0	0.0	27.5	27.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.76
Lane Grp Cap(c), veh/h				262	0	233	1553	1422	0	0	477	441
V/C Ratio(X)				0.88	0.00	0.55	0.48	0.46	0.00	0.00	0.94	0.95
Avail Cap(c_a), veh/h				374	0	332	1553	1422	0	0	486	449
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.50	0.50	0.00	0.00	0.62	0.62
Uniform Delay (d), s/veh				45.9	0.0	43.5	8.4	0.0	0.0	0.0	39.3	39.3
Incr Delay (d2), s/veh				12.7	0.0	0.8	0.0	0.5	0.0	0.0	21.5	22.9
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.9	0.0	3.2	2.5	0.2	0.0	0.0	14.6	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				58.6	0.0	44.2	8.5	0.5	0.0	0.0	60.8	62.2
LnGrp LOS				E		D	A	A			E	E
Approach Vol, veh/h					361			1393			867	
Approach Delay, s/veh					53.5			4.8			61.5	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		89.0			54.5	34.4		21.0				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		77.3			42.3	30.3		23.3				
Max Q Clear Time (g_c+I1), s		2.0			11.1	29.6		16.2				
Green Ext Time (p_c), s		0.6			0.1	0.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				30.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary 4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Cumulative PP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↗		↗	↕	
Traffic Volume (veh/h)	211	0	350	0	0	0	0	931	330	187	453	0
Future Volume (veh/h)	211	0	350	0	0	0	0	931	330	187	453	0
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	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	251	0	0				0	1108	393	223	539	0
Peak Hour Factor	0.84	0.84	0.84				0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	281	0					0	1460	509	247	1395	0
Arrive On Green	0.16	0.00	0.00				0.00	0.57	0.57	0.28	1.00	0.00
Sat Flow, veh/h	1767	0	1572				0	2656	893	1767	1856	0
Grp Volume(v), veh/h	251	0	0				0	756	745	223	539	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1694	1767	1856	0
Q Serve(g_s), s	15.3	0.0	0.0				0.0	35.5	37.2	13.4	0.0	0.0
Cycle Q Clear(g_c), s	15.3	0.0	0.0				0.0	35.5	37.2	13.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.53	1.00		0.00
Lane Grp Cap(c), veh/h	281	0					0	1004	965	247	1395	0
V/C Ratio(X)	0.89	0.00					0.00	0.75	0.77	0.90	0.39	0.00
Avail Cap(c_a), veh/h	647	0					0	1004	965	294	1395	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.87	0.87	0.82	0.82	0.00
Uniform Delay (d), s/veh	45.3	0.0	0.0				0.0	17.9	18.2	38.9	0.0	0.0
Incr Delay (d2), s/veh	4.0	0.0	0.0				0.0	4.6	5.2	20.8	0.7	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
%ile BackOfQ(50%),veh/ln	6.8	0.0	0.0				0.0	14.6	14.8	6.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.3	0.0	0.0				0.0	22.4	23.5	59.7	0.7	0.0
LnGrp LOS	D						C			C	E	A
Approach Vol, veh/h	251						1501			762		
Approach Delay, s/veh	49.3						22.9			18.0		
Approach LOS	D						C			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	20.1	67.7		22.2			87.8					
Change Period (Y+Rc), s	4.7	5.1		4.7			5.1					
Max Green Setting (Gmax), s	10.3	35.9		40.3			59.9					
Max Q Clear Time (g_c+11.5), s	11.5	39.2		17.3			2.0					
Green Ext Time (p_c), s	0.0	0.0		0.2			0.5					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	24.1											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Cumulative PP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	100	130	60	160	20	102	263	32	20	212	50
Future Volume (veh/h)	60	100	130	60	160	20	102	263	32	20	212	50
Initial Q (Qb), veh	0	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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	77	128	167	77	205	26	131	337	41	26	272	64
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	112	166	216	112	368	47	169	506	62	53	358	84
Arrive On Green	0.06	0.23	0.23	0.06	0.23	0.23	0.10	0.31	0.31	0.03	0.25	0.25
Sat Flow, veh/h	1767	727	948	1767	1612	204	1767	1621	197	1767	1450	341
Grp Volume(v), veh/h	77	0	295	77	0	231	131	0	378	26	0	336
Grp Sat Flow(s),veh/h/ln	1767	0	1675	1767	0	1817	1767	0	1819	1767	0	1791
Q Serve(g_s), s	2.3	0.0	9.0	2.3	0.0	6.1	4.0	0.0	9.8	0.8	0.0	9.5
Cycle Q Clear(g_c), s	2.3	0.0	9.0	2.3	0.0	6.1	4.0	0.0	9.8	0.8	0.0	9.5
Prop In Lane	1.00		0.57	1.00		0.11	1.00		0.11	1.00		0.19
Lane Grp Cap(c), veh/h	112	0	382	112	0	415	169	0	568	53	0	442
V/C Ratio(X)	0.69	0.00	0.77	0.69	0.00	0.56	0.78	0.00	0.67	0.49	0.00	0.76
Avail Cap(c_a), veh/h	648	0	921	648	0	999	648	0	1000	648	0	984
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	19.7	25.0	0.0	18.6	24.1	0.0	16.3	26.1	0.0	19.1
Incr Delay (d2), s/veh	2.8	0.0	1.3	2.8	0.0	0.4	2.9	0.0	0.5	2.6	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.4	1.0	0.0	2.4	1.7	0.0	3.8	0.4	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.9	0.0	21.0	27.9	0.0	19.1	27.0	0.0	16.8	28.7	0.0	20.1
LnGrp LOS	C		C	C		B	C		B	C		C
Approach Vol, veh/h	372		308			509			362			
Approach Delay, s/veh	22.4		21.3			19.4			20.7			
Approach LOS	C		C			B			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	17.5	6.6	22.0	8.4	17.5	10.2	18.5				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I4.3), s	14.3	8.1	2.8	11.8	4.3	11.0	6.0	11.5				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.2	0.0	0.7	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			20.8									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary 6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Cumulative PP AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕		↗	↘	
Traffic Volume (veh/h)	0	0	0	30	0	190	0	991	30	130	643	0
Future Volume (veh/h)	0	0	0	30	0	190	0	991	30	130	643	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1856	1870	1856	1856	1856	1856	1870
Adj Flow Rate, veh/h	0	0	0	34	0	213	0	1113	34	146	722	0
Peak Hour Factor	0.92	0.92	0.92	0.89	0.92	0.89	0.92	0.89	0.89	0.89	0.89	0.92
Percent Heavy Veh, %	2	2	2	3	2	3	2	3	3	3	3	2
Cap, veh/h	0	2	0	274	0	246	0	2132	65	173	2658	0
Arrive On Green	0.00	0.00	0.00	0.16	0.00	0.16	0.00	0.61	0.61	0.20	1.00	0.00
Sat Flow, veh/h	0	1870	0	1767	0	1585	0	3585	107	1767	3618	0
Grp Volume(v), veh/h	0	0	0	34	0	213	0	562	585	146	722	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1767	0	1585	0	1763	1836	1767	1763	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	14.4	0.0	20.0	20.1	8.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	14.4	0.0	20.0	20.1	8.8	0.0	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	274	0	246	0	1076	1121	173	2658	0
V/C Ratio(X)	0.00	0.00	0.00	0.12	0.00	0.87	0.00	0.52	0.52	0.84	0.27	0.00
Avail Cap(c_a), veh/h	0	204	0	434	0	389	0	1076	1121	402	2658	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.0	0.0	45.3	0.0	12.3	12.3	43.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	7.1	0.0	1.8	1.7	3.4	0.2	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(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	6.1	0.0	7.8	8.1	3.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	40.1	0.0	52.4	0.0	14.1	14.0	46.8	0.2	0.0
LnGrp LOS				D	D			B	B	D	A	
Approach Vol, veh/h	0			247			1147			868		
Approach Delay, s/veh	0.0			50.7			14.0			8.0		
Approach LOS				D			B			A		
Timer - Assigned Phs	2			4		5	6		8			
Phs Duration (G+Y+Rc), s	87.9			22.1		15.8	72.1		0.0			
Change Period (Y+Rc), s	5.0			5.0		5.0	5.0		5.0			
Max Green Setting (Gmax), s	56.0			27.0		25.0	26.0		12.0			
Max Q Clear Time (g_c+I1), s	2.0			16.4		10.8	22.1		0.0			
Green Ext Time (p_c), s	1.9			0.7		0.1	1.3		0.0			
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.7									
HCM 6th LOS			B									
Notes												

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	37	12	399	464	1
Future Vol, veh/h	3	37	12	399	464	1
Conflicting Peds, #/hr	0	0	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	40	13	434	504	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	965	505	505	0	-	0
Stage 1	505	-	-	-	-	-
Stage 2	460	-	-	-	-	-
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	283	567	1060	-	-	-
Stage 1	606	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	278	567	1060	-	-	-
Mov Cap-2 Maneuver	278	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	636	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.5	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1060	-	526	-	-
HCM Lane V/C Ratio	0.012	-	0.083	-	-
HCM Ctrl Dly (s/v)	8.4	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q (veh)	0	-	0.3	-	-

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	19	20	0	10	36	442	30	10	314	4
Future Vol, veh/h	3	0	19	20	0	10	36	442	30	10	314	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
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	92	92	92	88	92	88	92	88	88	88	88	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	21	23	0	11	39	502	34	11	357	4
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	984	996	359	990	981	520	361	0	0	537	0	0
Stage 1	381	381	-	598	598	-	-	-	-	-	-	-
Stage 2	603	615	-	392	383	-	-	-	-	-	-	-
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	228	244	685	225	249	556	1198	-	-	1031	-	-
Stage 1	641	613	-	489	491	-	-	-	-	-	-	-
Stage 2	486	482	-	633	612	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	213	229	685	208	234	555	1198	-	-	1030	-	-
Mov Cap-2 Maneuver	213	229	-	208	234	-	-	-	-	-	-	-
Stage 1	611	605	-	466	467	-	-	-	-	-	-	-
Stage 2	454	459	-	606	604	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	12.2		20.7		0.6		0.3					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1198	-	-	526	263	1030	-	-				
HCM Lane V/C Ratio	0.033	-	-	0.045	0.13	0.011	-	-				
HCM Ctrl Dly (s/v)	8.1	0	-	12.2	20.7	8.5	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0.4	0	-	-				

HCM 6th Signalized Intersection Summary 2: Glen Cove Road/Rollingwood Drive & Benicia Road

Vallejo Rollingwood
Cumulative PP PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	50	100	130	70	34	120	470	130	22	305	35
Future Volume (veh/h)	38	50	100	130	70	34	120	470	130	22	305	35
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		0.98	1.00		0.97	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	55	110	143	77	37	132	516	143	24	335	38
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	207	176	187	320	265	172	637	523	51	509	426
Arrive On Green	0.04	0.11	0.11	0.10	0.17	0.17	0.10	0.34	0.34	0.03	0.27	0.27
Sat Flow, veh/h	1781	1870	1585	1781	1870	1550	1781	1870	1536	1781	1870	1565
Grp Volume(v), veh/h	42	55	110	143	77	37	132	516	143	24	335	38
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1550	1781	1870	1536	1781	1870	1565
Q Serve(g_s), s	1.1	1.3	3.2	3.8	1.7	1.0	3.5	12.1	3.3	0.6	7.6	0.9
Cycle Q Clear(g_c), s	1.1	1.3	3.2	3.8	1.7	1.0	3.5	12.1	3.3	0.6	7.6	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	207	176	187	320	265	172	637	523	51	509	426
V/C Ratio(X)	0.53	0.27	0.63	0.76	0.24	0.14	0.77	0.81	0.27	0.47	0.66	0.09
Avail Cap(c_a), veh/h	1110	1165	988	1110	1748	1449	740	1748	1435	740	1748	1462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	19.6	20.5	21.0	17.2	16.9	21.2	14.5	11.6	23.0	15.5	13.1
Incr Delay (d2), s/veh	2.0	0.3	1.4	2.5	0.1	0.1	2.7	1.0	0.1	2.5	0.5	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(50%),veh/ln	0.5	0.5	1.1	1.5	0.6	0.3	1.4	4.4	0.9	0.3	3.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.5	19.9	21.8	23.4	17.4	17.0	23.9	15.4	11.7	25.5	16.1	13.1
LnGrp LOS	C	B	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h	207			257			791			397		
Approach Delay, s/veh	21.8			20.7			16.2			16.4		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	10.3	9.7	18.1	7.1	13.2	6.4	21.4				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	30.0	30.0	20.0	45.0	30.0	45.0	20.0	45.0				
Max Q Clear Time (g_c+I1), s	5.8	5.2	5.5	9.6	3.1	3.7	2.6	14.1				
Green Ext Time (p_c), s	0.2	0.1	0.1	0.8	0.0	0.1	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	17.6											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

Vallejo Rollingwood

3: Glen Cove Road & I-780 Westbound On Ramp/I-780 Westbound Off Ramp Cumulative PP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↶	↶	↶	↶			↷	↷
Traffic Volume (veh/h)	0	0	0	370	0	250	350	470	0	0	434	111
Future Volume (veh/h)	0	0	0	370	0	250	350	470	0	0	434	111
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				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				407	0	275	385	516	0	0	477	122
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				436	0	388	1485	1245	0	0	536	136
Arrive On Green				0.25	0.00	0.25	0.86	1.00	0.00	0.00	0.19	0.19
Sat Flow, veh/h				1781	0	1585	3456	1870	0	0	2899	713
Grp Volume(v), veh/h				407	0	275	385	516	0	0	301	298
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1870	0	0	1777	1742
Q Serve(g_s), s				23.5	0.0	16.6	2.1	0.0	0.0	0.0	17.3	17.5
Cycle Q Clear(g_c), s				23.5	0.0	16.6	2.1	0.0	0.0	0.0	17.3	17.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.41
Lane Grp Cap(c), veh/h				436	0	388	1485	1245	0	0	339	333
V/C Ratio(X)				0.93	0.00	0.71	0.26	0.41	0.00	0.00	0.89	0.90
Avail Cap(c_a), veh/h				565	0	503	1485	1245	0	0	462	453
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.59	0.59	0.00	0.00	0.79	0.79
Uniform Delay (d), s/veh				38.8	0.0	36.2	4.4	0.0	0.0	0.0	41.4	41.4
Incr Delay (d2), s/veh				17.5	0.0	1.8	0.0	0.6	0.0	0.0	22.7	24.2
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(50%),veh/ln				11.9	0.0	6.3	0.7	0.2	0.0	0.0	9.6	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				56.3	0.0	38.1	4.4	0.6	0.0	0.0	64.0	65.6
LnGrp LOS				E		D	A	A			E	E
Approach Vol, veh/h					682			901			599	
Approach Delay, s/veh					49.0			2.2			64.8	
Approach LOS					D			A			E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		74.6			49.8	24.8		30.4				
Change Period (Y+Rc), s		4.7			4.7	4.7		4.7				
Max Green Setting (Gmax), s		62.3			30.3	27.3		33.3				
Max Q Clear Time (g_c+I1), s		2.0			4.1	19.5		25.5				
Green Ext Time (p_c), s		0.5			0.1	0.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh											34.0	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary 4: I-780 Eastbound On Ramp & Glen Cove Road

Vallejo Rollingwood
Cumulative PP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↰↱		↱	↰	
Traffic Volume (veh/h)	206	0	610	0	0	0	0	614	250	132	672	0
Future Volume (veh/h)	206	0	610	0	0	0	0	614	250	132	672	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	212	0	0				0	633	258	136	693	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	244	0					0	1553	633	162	1440	0
Arrive On Green	0.14	0.00	0.00				0.00	0.63	0.63	0.18	1.00	0.00
Sat Flow, veh/h	1781	0	1585				0	2543	998	1781	1870	0
Grp Volume(v), veh/h	212	0	0				0	459	432	136	693	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1671	1781	1870	0
Q Serve(g_s), s	12.2	0.0	0.0				0.0	13.4	13.4	7.7	0.0	0.0
Cycle Q Clear(g_c), s	12.2	0.0	0.0				0.0	13.4	13.4	7.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.60	1.00		0.00
Lane Grp Cap(c), veh/h	244	0					0	1126	1059	162	1440	0
V/C Ratio(X)	0.87	0.00					0.00	0.41	0.41	0.84	0.48	0.00
Avail Cap(c_a), veh/h	938	0					0	1126	1059	226	1440	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.77	0.77	0.94	0.94	0.00
Uniform Delay (d), s/veh	44.4	0.0	0.0				0.0	9.5	9.5	42.2	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.8	0.9	12.4	1.1	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
%ile BackOfQ(50%),veh/ln	5.5	0.0	0.0				0.0	5.0	4.7	3.6	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.1	0.0	0.0				0.0	10.3	10.4	54.6	1.1	0.0
LnGrp LOS	D							B	B	D	A	
Approach Vol, veh/h	212						891			829		
Approach Delay, s/veh	48.1						10.4			9.9		
Approach LOS	D						B			A		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	4.3	71.7		19.1			85.9					
Change Period (Y+Rc), s	4.7	5.1		4.7			5.1					
Max Green Setting (Gmax), s	13.3	21.9		55.3			38.9					
Max Q Clear Time (g_c+I), s	19.7	15.4		14.2			2.0					
Green Ext Time (p_c), s	0.0	0.7		0.2			0.7					

Intersection Summary

HCM 6th Ctrl Delay, s/veh	14.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 5: Rollingwood Drive & Georgia Street

Vallejo Rollingwood
Cumulative PP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	140	82	32	130	30	62	232	31	20	184	30
Future Volume (veh/h)	50	140	82	32	130	30	62	232	31	20	184	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	156	91	36	144	33	69	258	34	22	204	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	218	127	74	265	61	120	371	49	48	297	48
Arrive On Green	0.06	0.20	0.20	0.04	0.18	0.18	0.07	0.23	0.23	0.03	0.19	0.19
Sat Flow, veh/h	1781	1108	646	1781	1472	337	1781	1619	213	1781	1571	254
Grp Volume(v), veh/h	56	0	247	36	0	177	69	0	292	22	0	237
Grp Sat Flow(s),veh/h/ln	1781	0	1754	1781	0	1810	1781	0	1832	1781	0	1825
Q Serve(g_s), s	1.2	0.0	5.2	0.8	0.0	3.5	1.5	0.0	5.8	0.5	0.0	4.8
Cycle Q Clear(g_c), s	1.2	0.0	5.2	0.8	0.0	3.5	1.5	0.0	5.8	0.5	0.0	4.8
Prop In Lane	1.00		0.37	1.00		0.19	1.00		0.12	1.00		0.14
Lane Grp Cap(c), veh/h	103	0	345	74	0	326	120	0	420	48	0	345
V/C Ratio(X)	0.54	0.00	0.72	0.49	0.00	0.54	0.58	0.00	0.70	0.46	0.00	0.69
Avail Cap(c_a), veh/h	901	0	1330	901	0	1372	901	0	1389	901	0	1384
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	14.9	18.6	0.0	14.7	17.9	0.0	14.0	19.0	0.0	14.9
Incr Delay (d2), s/veh	1.6	0.0	1.0	1.9	0.0	0.5	1.6	0.0	0.8	2.5	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.9	0.3	0.0	1.3	0.6	0.0	2.1	0.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.7	0.0	15.9	20.4	0.0	15.3	19.5	0.0	14.8	21.4	0.0	15.9
LnGrp LOS	B		B	C		B	B		B	C		B
Approach Vol, veh/h	303					213		361		259		
Approach Delay, s/veh	16.6					16.1		15.7		16.3		
Approach LOS	B					B		B		B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	12.1	6.1	14.1	6.6	12.8	7.7	12.5				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+I), s	13.2	5.5	2.5	7.8	2.8	7.2	3.5	6.8				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.9	0.0	0.6	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			16.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary 6: Glen Cove Parkway & Robles Way

Vallejo Rollingwood
Cumulative PP PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘			↕		↗	↘	
Traffic Volume (veh/h)	0	0	0	60	0	260	0	564	50	320	912	0
Future Volume (veh/h)	0	0	0	60	0	260	0	564	50	320	912	0
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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	63	0	274	0	594	53	337	960	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	4	0	405	0	360	0	776	69	407	2014	0
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.00	0.24	0.24	0.23	0.57	0.00
Sat Flow, veh/h	0	1870	0	1779	0	1583	0	3387	293	1781	3647	0
Grp Volume(v), veh/h	0	0	0	63	0	274	0	320	327	337	960	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1779	0	1583	0	1777	1810	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	7.9	0.0	8.2	8.2	8.8	7.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.4	0.0	7.9	0.0	8.2	8.2	8.8	7.8	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		0.16	1.00		0.00
Lane Grp Cap(c), veh/h	0	4	0	405	0	360	0	418	426	407	2014	0
V/C Ratio(X)	0.00	0.00	0.00	0.16	0.00	0.76	0.00	0.76	0.77	0.83	0.48	0.00
Avail Cap(c_a), veh/h	0	1153	0	1097	0	976	0	1096	1116	1465	2192	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)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.0	0.0	17.5	0.0	17.3	17.4	17.9	6.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	1.3	0.0	1.1	1.1	1.7	0.1	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(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	2.6	0.0	2.9	3.0	3.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	15.1	0.0	18.8	0.0	18.4	18.5	19.5	6.3	0.0
LnGrp LOS				B	B			B	B	B	A	
Approach Vol, veh/h	0		337			647			1297			
Approach Delay, s/veh	0.0		18.1			18.5			9.8			
Approach LOS			B			B			A			
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	32.6		16.1		16.1	16.5	0.0					
Change Period (Y+Rc), s	5.0		5.0		5.0	5.0	5.0					
Max Green Setting (Gmax), s	30.0		30.0		40.0	30.0	30.0					
Max Q Clear Time (g_c+I1), s	9.8		9.9		10.8	10.2	0.0					
Green Ext Time (p_c), s	2.5		1.2		0.5	1.3	0.0					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			13.5									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	23	36	506	349	4
Future Vol, veh/h	2	23	36	506	349	4
Conflicting Peds, #/hr	0	0	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	25	39	550	379	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1009	381	383	0	-	0
Stage 1	381	-	-	-	-	-
Stage 2	628	-	-	-	-	-
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	266	666	1175	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	253	666	1175	-	-	-
Mov Cap-2 Maneuver	253	-	-	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	11.4	0.5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1175	-	589	-	-	
HCM Lane V/C Ratio	0.033	-	0.046	-	-	
HCM Ctrl Dly (s/v)	8.2	0	11.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q (veh)	0.1	-	0.1	-	-	



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Walnut Creek, CA 94596
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SHEET INDEX

NO.

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- P1.0 PRELIMINARY DEVELOPMENT PLAN

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- 4
- C2 BOUNDARY SURVEY & EXISTING CONDITIONS
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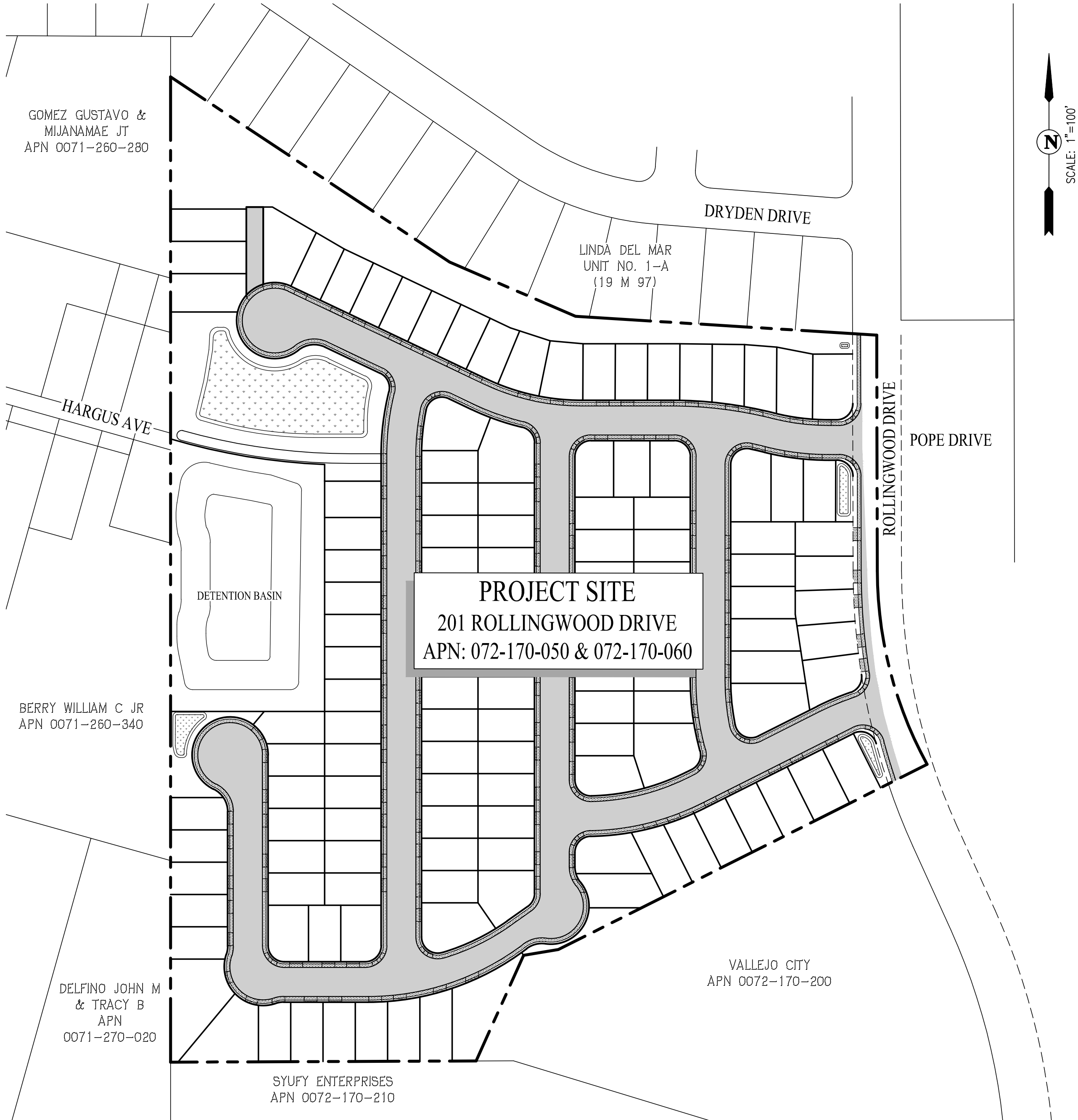
PHOTOMETRIC PLANS

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- L-9 PLANT IMAGERY



VICINITY MAP

DEVELOPER

KB HOME NORTH BAY LLC
4830 BUSINESS CENTER DRIVE, SUITE 150
FAIRFIELD, CA 94534
(707) 389-7501
CONTACT: JERRY MARCUS

CIVIL ENGINEER

CARLSON, BARBEE & GIBSON INC.
2633 CAMINO RAMON, SUITE 350
SAN RAMON, CA 94583
(925) 866-0322
CONTACT: ANDREA BELLANCA

LANDSCAPE ARCHITECT

VANDERTOOLEN ASSOCIATES
855 BORDEAUX WAY, SUITE 240
NAPA, CA 94558
(707) 224-2299
CONTACT: DAVE BENNET

PROJECT DESCRIPTION

ROLLINGWOOD IS A NEW PROJECT AT 201 ROLLINGWOOD DRIVE, VALLEJO, CA. THE PROJECT INCLUDES THE SUBDIVISION OF THE 17.24 ACRE SITE INTO 130 RESIDENTIAL LOTS WITH A TYPICAL SIZE OF 40'X70', PLUS OPEN SPACE, BASIN, STREET AND COMMON AREA LOTS. THE STREETS WITHIN THE PROJECT WILL BE PUBLIC AND INCLUDE LIGHTING AND SIDEWALKS THROUGHOUT THE NEIGHBORHOOD.

LEGEND

- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED FACE OF CURB
- PROPOSED SIDEWALK/DRIVEWAY
- PROPOSED BIORETENTION AREA

JUNE 2024



201 ROLLINGWOOD DRIVE

DEVELOPMENT PLAN & VESTING TENTATIVE MAP

VALLEJO, CALIFORNIA



GOMEZ GUSTAVO &
MIJANAMAE JT
APN 0071-260-280

FILIPPI RAUNA &
CHRIS JT
APN 0071-260-140

SOUSA MARK R &
DEBORAH D TR
APN 0071-260-350

BERRY WILLIAM C JR
APN 0071-260-340

EXISTING: COUNTY RESIDENTIAL

DELFINO JOHN M &
TRACY B
APN 0071-270-020

SYUFY ENTERPRISES
APN 0072-170-210
EXISTING: VACANT
PROPOSED: NEIGHBORHOOD MIXED-USE

NOTE:
PRE-PLOTING IS PRELIMINARY AND SUBJECT
TO CHANGE WITH FINAL DESIGN.

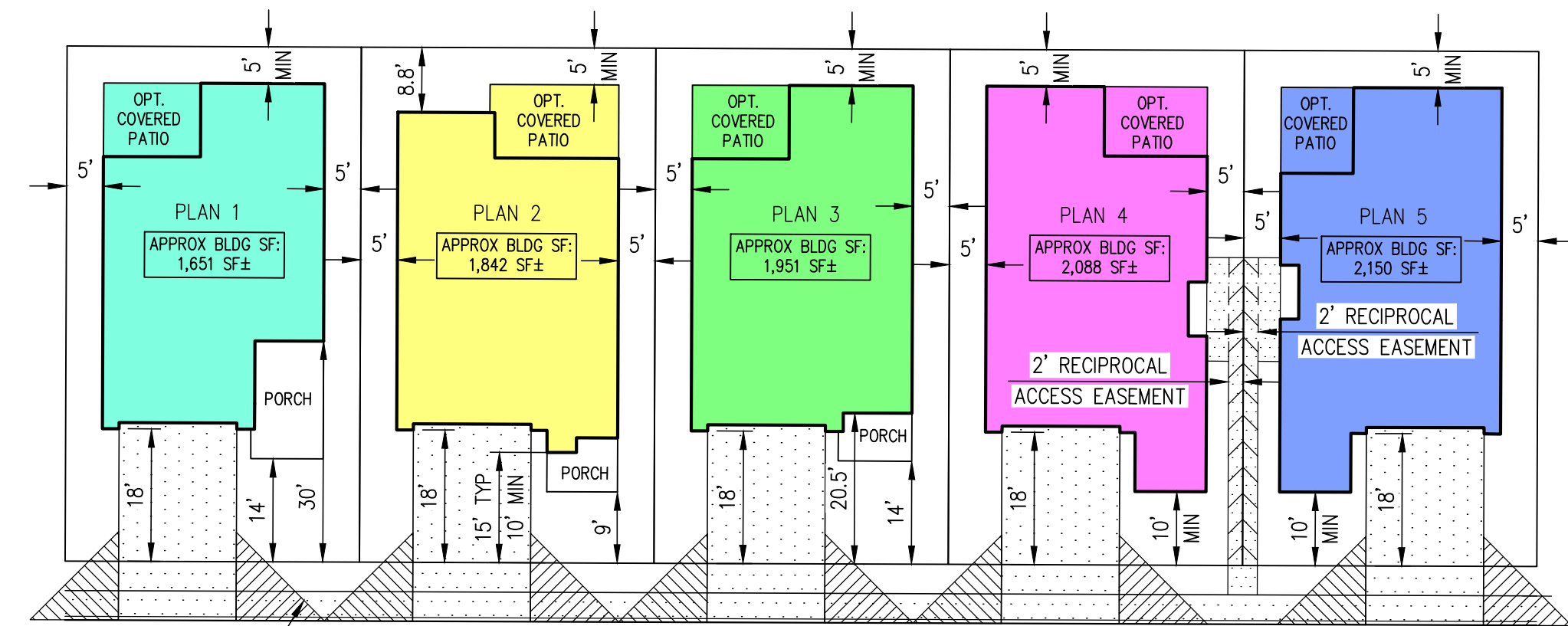
UNIT MIX SUMMARY		
PLAN	UNIT COUNT	% MIX
PLAN 1	26	20%
PLAN 2	26	20%
PLAN 3	26	20%
PLAN 4	26	20%
PLAN 5	26	20%
TOTAL	130	100%

LOT AREA SUMMARY			
PLAN	% IMPERVIOUS	% LANDSCAPE	% VISIBLE LS
PLAN 1	64%	36%	39%
PLAN 2	64%	36%	36%
PLAN 3	64%	36%	39%
PLAN 4	68%	32%	35%
PLAN 5	68%	32%	35%

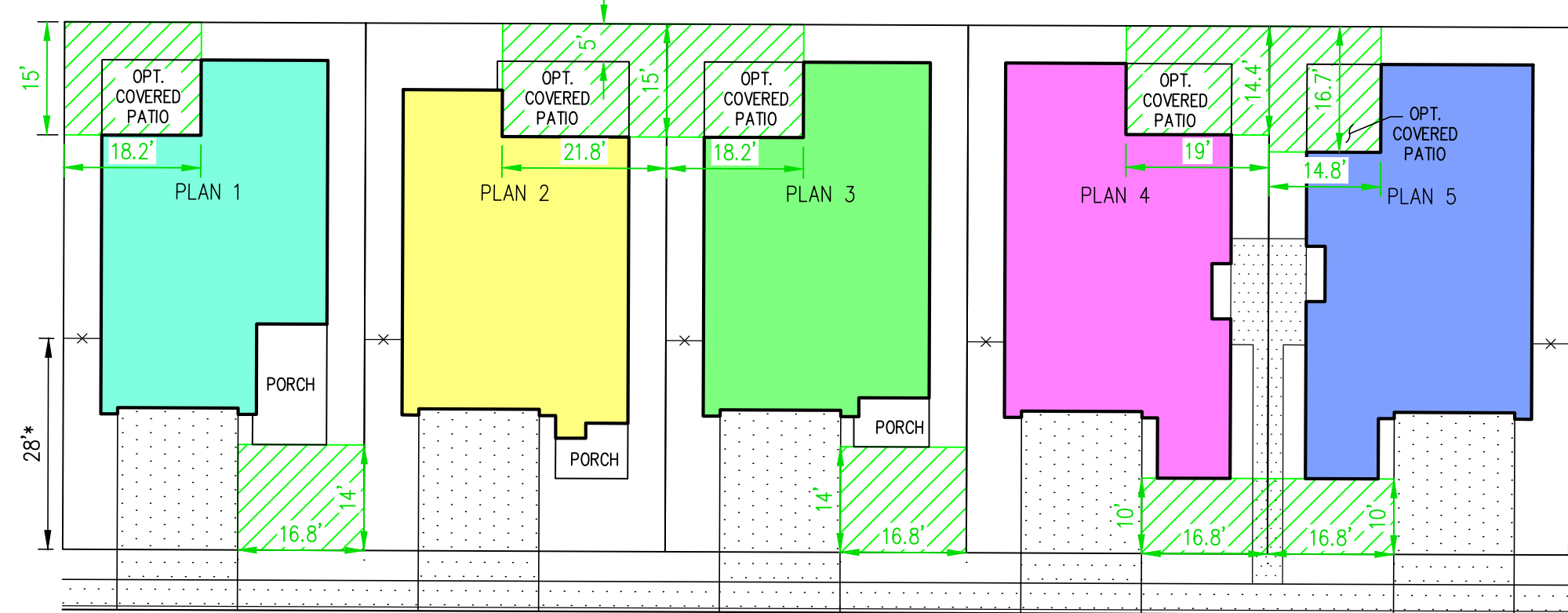
* PERCENT IMPERVIOUS AND PERCENT LANDSCAPE ARE BASED ON TYPICAL LOT AREA.
* PERCENT VISIBLE LANDSCAPE IS BASED ON FRONT 28' OF LOT.

COVERAGE SUMMARY		
PLAN	BUILDING FOOTPRINT*	TYP 40' X 70' LOT COVERAGE
PLAN 1	1,284 SF±	45.9%
PLAN 2	1,366 SF±	48.8%
PLAN 3	1,373 SF±	49.0%
PLAN 4	1,455 SF±	52.0%
PLAN 5	1,455 SF±	52.0%

* BUILDING FOOTPRINT INCLUDES OPTIONAL COVERED PATIO AREA.
* DOES NOT INCLUDE PORCH AREA.



TYPICAL 40' X 70' LOT MIN SETBACKS



* PORTION OF LOT USED TO CALCULATE % VISIBLE LANDSCAPE

TYPICAL 40' X 70' LOT MIN OPEN SPACE

LEGEND
OPEN SPACE AREA

OPEN SPACE SUMMARY				
PLAN	MIN AREA REQUIRED (SF)	APPROXIMATE OPEN SPACE (SF)		
		FRONT	REAR	TOTAL
PLAN 1	300	234	272	506
PLAN 2	300	0	327	327
PLAN 3	300	234	272	506
PLAN 4	300	167	273	440
PLAN 5	300	167	247	414

PRELIMINARY DEVELOPMENT PLAN 201 ROLLINGWOOD DRIVE

CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: APRIL 2024

↑ 0 60 120 180

cbg CIVIL ENGINEERS • SURVEYORS • PLANNERS

SAN RAMON • (925) 866-0322
ROSEVILLE • (916) 788-4456
WWW.CBANDG.COM

SHEET NO.
P1.0
OF 1 SHEETS

JOB NO.: 3446-010

LEGEND

- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED FACE OF CURB
- PUBLIC UTILITY EASEMENT
- PROPOSED SIDEWALK/DRIVEWAY
- PROPOSED AC STREET
- PROPOSED BIORETENTION AREA
- SIGHT DISTANCE TRIANGLE (PER VMC 16.501.11)

TABLE 16.202-C: DEVELOPMENT STANDARDS - SMALL LOT SINGLE UNIT, BUNGALOW COURT, & TOWNHOUSE DEVELOPMENT			
STANDARD	SMALL LOT SINGLE UNIT	BUNGALOW COURT	TOWNHOUSE
SITE STANDARDS			
Minimum Lot Width (ft.)	25	75	80
Maximum Floor Area Ratio (FAR)	46± N/A	0.6	1.0
Maximum Lot Coverage (% of site)	65	65	65
BUILDING HEIGHT AND FORM			
Maximum Height	35	35	40
Maximum Building Length (ft.)	n/a	n/a	125
SETBACKS			
Individual Lot (ft.)			
Front	Minimum 10; 7 for porches, stoops, and doorways.		
Side	1-story portion: 0 or minimum 3 if any setback is provided; 2nd and 3rd story portions: 5; for Townhouses, required setbacks apply to the ends of rows of attached units.		
Rear	5; 0 for a detached garage on an alley.		
PARKING AND ACCESS			
Maximum Garage Width (ft.)	Maximum 20; common garages not visible from the street may be wider to accommodate up to four cars.		
Access Location	Alley or side street, preferred. Secondary preference is setback a minimum of 4 feet from main entrance. Entries are designed as a prominent feature and are the main focal point. Entries are incorporated as part of porches or entrance feature.		
BUILDING ORIENTATION			
Orientation	Facades shall be designed to orient towards the public street or to a common courtyard, if provided.		
Entrance Location	The main entrance to each ground floor dwelling shall be visible to and located directly off a common courtyard or directly from the street.		
USABLE OPEN SPACE			
Minimum Open Space (sq. ft. per unit)	300	200	200
Minimum Common Open Space	n/a	15% of lot area provided as a central courtyard	None required
Minimum Dimensions			
Ground floor, common (ft.)	n/a	20	15
Ground floor, private (ft.)	15	10	10
Balcony (ft.)	6	6	6
ADDITIONAL STANDARDS			
Minimum Visible Landscaping (% of site) (1)	30	30	25
Minimum Amount of Enclosed Storage Area in garages and accessory structures (sq. ft.)	200 or 10 % of net floor area, whichever is greater 200 for projects with fewer than 16 units		

TABLE 16.202-C DEVELOPMENT STANDARDS
(SMALL LOT SINGLE UNIT)

PARKING SUMMARY

PARKING TYPE	PARKING REQUIRED	PARKING PROVIDED
GARAGE (COVERED)	130 (1 PER UNIT)	260 (2 PER UNIT)
DRIVEWAY	-	260 (2 PER UNIT)
ON-STREET (INTERNAL)	-	107
ON-STREET (ROLLINGWOOD)	-	10
TOTAL	130 (1 PER UNIT)	637

VALLEJO CITY
APN 0072-170-200
EXISTING: VACANT
PROPOSED: RESIDENTIAL MEDIUM DENSITY

DRYDEN DRIVE

LINDA DEL MAR
UNIT NO. 1-A
(19 M 97)
EXISTING: RESIDENTIAL LOW DENSITY

ROLLINGWOOD DRIVE

STREET A

STREET B

STREET C

STREET E

STREET D

STREET D

GENERAL NOTES

1.

ASSESSORS PARCEL NO. ADDRESS:

072-170-050, 072-170-060
201 ROLLINGWOOD DRIVE
2.

SITE AREA (GROSS):
SITE AREA (NET):

17.76± ACRES
17.33± ACRES
3.

LOTS:

RESIDENTIAL: 130 (LOTS 1-130)
PUBLIC STREETS (CITY OF VALLEJO): 2 (PARCEL A & C)
PUBLIC STREET DEDICATION (CITY OF VALLEJO):
1 (ROLLINGWOOD DRIVE - PARCEL C)
PRIVATE DRIVE AISLES (HOA): 1 (PARCEL B)
OPEN SPACE (HOA): 2 (PARCEL D & H)
DETENTION (HOA): 1 (PARCEL F)
WATER QUALITY (HOA): 4 (PARCEL E, G, I & J)
4.

DWELLING UNITS:

130
5.

SITE DENSITY (GROSS):
SITE DENSITY (NET):

7.3 DU/AC
7.5 DU/AC
6.

EXISTING GENERAL PLAN:
PROPOSED GENERAL PLAN:

MIX OF HOUSING TYPES / MEDIUM DENSITY (R-MH)
MIX OF HOUSING TYPES / MEDIUM DENSITY (R-MH)
7.

EXISTING ZONING:
PROPOSED ZONING:

RESIDENTIAL MEDIUM DENSITY (RMD)
RESIDENTIAL MEDIUM DENSITY (RMD)
8.

EXISTING LAND USE:
PROPOSED LAND USE:

MIX OF HOUSING TYPES
MIX OF HOUSING TYPES
9.

BENCHMARK:

POINT 9672 (22 RS 23)
BRASS CAP IN MONUMENT WELL MARKED "RCE 6250" AT THE
CENTERLINE INTERSECTION OF DRYDEN DRIVE AND DYER COURT.
ELEVATION: 167.40' (NAVD88)
CALC POINT 531
10.

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS DETERMINED BY FOUND
MONUMENTS, THE BEARING BEING N001°14'5"W PER MAP OF LINDA DEL
MAR UNIT NO.1-A (19 M 97)
11.

FLOOD ZONE:

ZONE X: AREAS WITH MINIMAL FLOOD HAZARD
SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD
INSURANCE RATE MAP, MAP NUMBER 0609SC0627G & 0609SC0629G
DATE: AUGUST 3, 2016
12.

UTILITIES:

WATER: CITY OF VALLEJO
SEWER: VALLEJO FLOOD AND WASTEWATER DISTRICT
STORM DRAIN: VALLEJO FLOOD AND WASTEWATER DISTRICT
GAS & ELECTRIC: PG&E
TELEPHONE: AT&T
13.

DIMENSIONS:

ALL PARCEL, LOT AND EASEMENT DIMENSIONS ARE PRELIMINARY AND
SUBJECT TO FINAL MAP
14.

GRADING:

GRADING SHOWN IS PRELIMINARY AND SUBJECT TO CHANGE DURING
FINAL DESIGN.
15.

PHASING:

PROJECT MAY BE CONSTRUCTED IN PHASES
16.

FINAL MAP:

THIS PROJECT MAY BE PHASED. MULTIPLE FINAL MAPS MAY BE FILED
UPON APPROVAL OF THE VESTING TENTATIVE SUBDIVISION MAP.

GOMEZ GUSTAVO &
MIJANAMAE JT
APN 0071-260-280

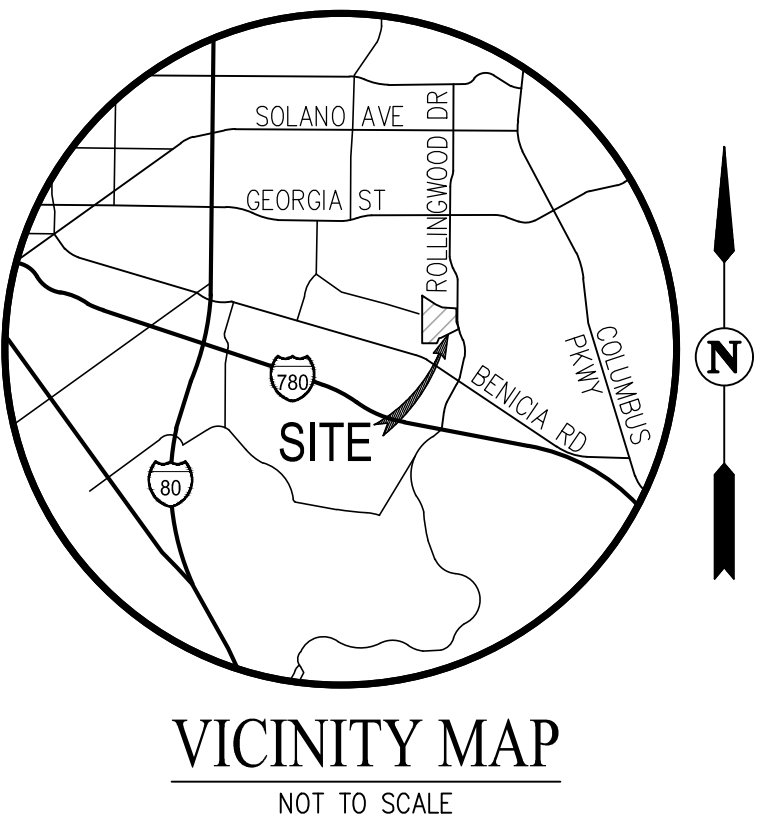
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APN 0071-260-140

SOUSA MARK R &
DEBORAH D TR
APN 0071-260-350

BERRY WILLIAM C JR
APN 0071-260-340

DELFINO JOHN M
& TRACY B
APN
0071-270-020

SYUFY ENTERPRISES
APN 0072-170-210



CONTACTS

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JERRY MARCUS
2. ENGINEER:

CARLSON, BARBEE & GIBSON, INC.
2633 CAMINO RAMON, SUITE 350
SAN RAMON, CALIFORNIA 94583
(925) 866-0322
ANDREA BELLANCA, R.C.E. NO. 61806

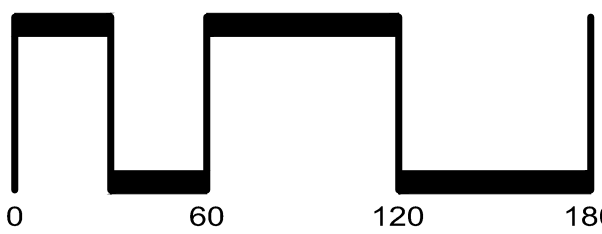
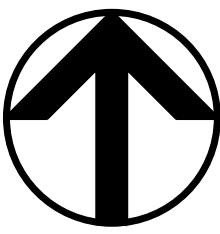
LEGEND

- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED FACE OF CURB
- PROPOSED CENTERLINE
- PUBLIC UTILITY EASEMENT
- PROPOSED SIDEWALK/DRIVEWAY
- PROPOSED AC STREET
- PROPOSED BIORETENTION AREA

VESTING TENTATIVE MAP
COVER SHEET

201 ROLLINGWOOD DR - SUB #

CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: JUNE 2024

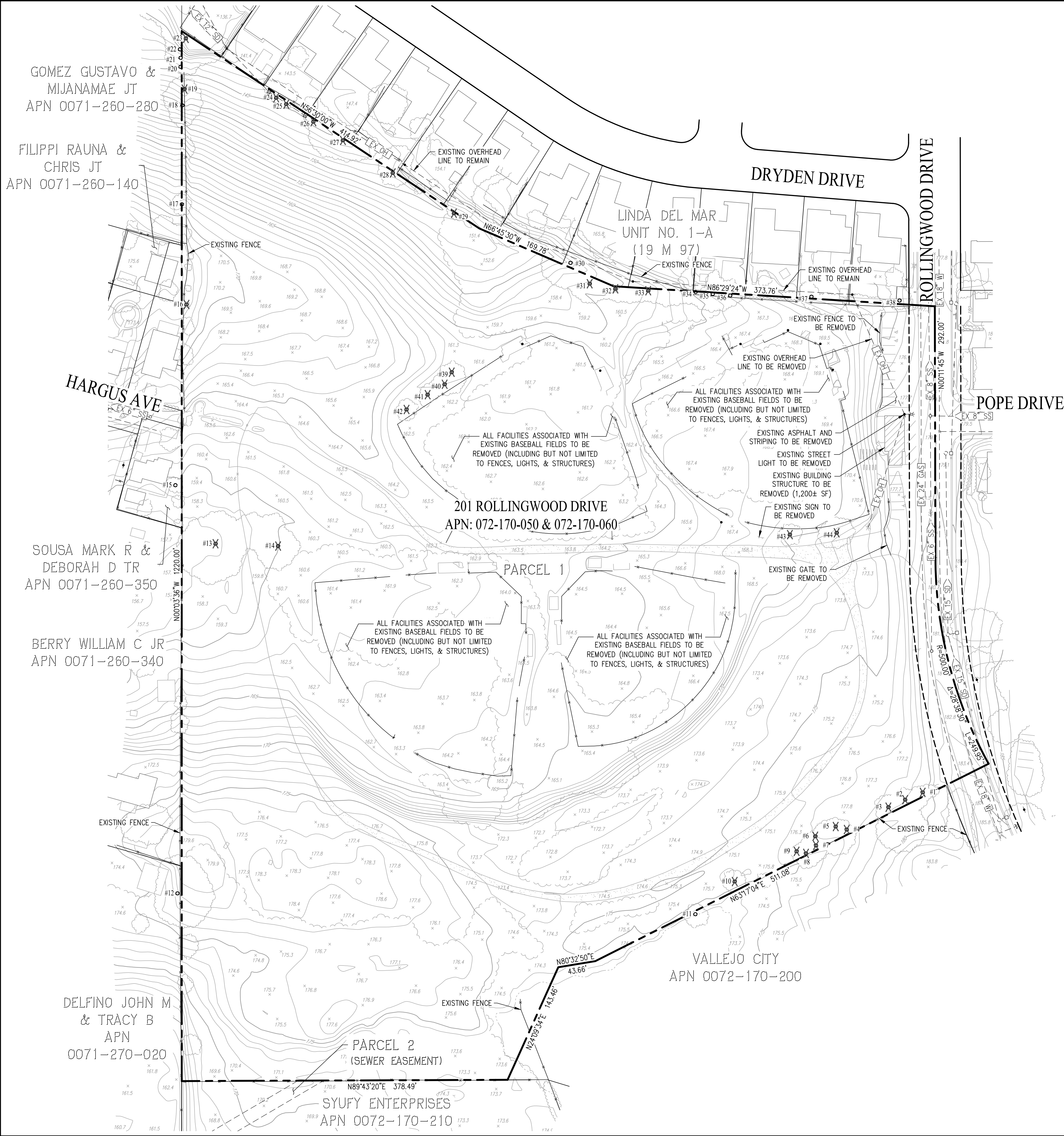


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CIVIL ENGINEERS SURVEYORS PLANNERS

SHEET NO.
C1
OF 10 SHEETS

JOB NO.: 3446-010



LEGEND

- EXISTING PROJECT BOUNDARY
- EXISTING EASEMENT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING MANHOLE
- EXISTING STREET LIGHT
- EXISTING FENCE
- EXISTING STORM DRAIN
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING GAS
- EXISTING OVERHEAD LINE
- EXISTING BUILDING TO BE DEMOLISHED
- EXISTING DIRT PATH TO BE DEMOLISHED
- EXISTING TREE TO BE REMOVED (SEE NOTE 1)

NOTES:
1) ALL ONSITE TREES TO BE REMOVED AND OFFSITE TREES TO BE RETAINED AS NOTED IN THE PROJECT ARBORIST REPORT.
2) TREE LOCATIONS SHOWN ARE APPROXIMATE.
3) ALL EXISTING BUILDINGS AND STRUCTURES ONSITE TO BE REMOVED.

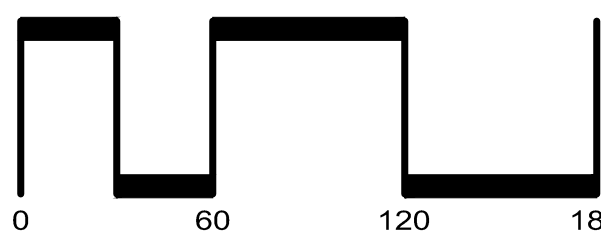
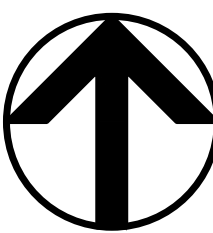


THIS MAP REPRESENTS A BOUNDARY SURVEY PREPARED IN MAY 2023 UNDER MY DIRECTION:

MARK WEHBER, L.S. 4/17/24
DATE

VESTING TENTATIVE MAP
BOUNDARY SURVEY &
EXISTING CONDITIONS
201 ROLLINGWOOD DR - SUB #

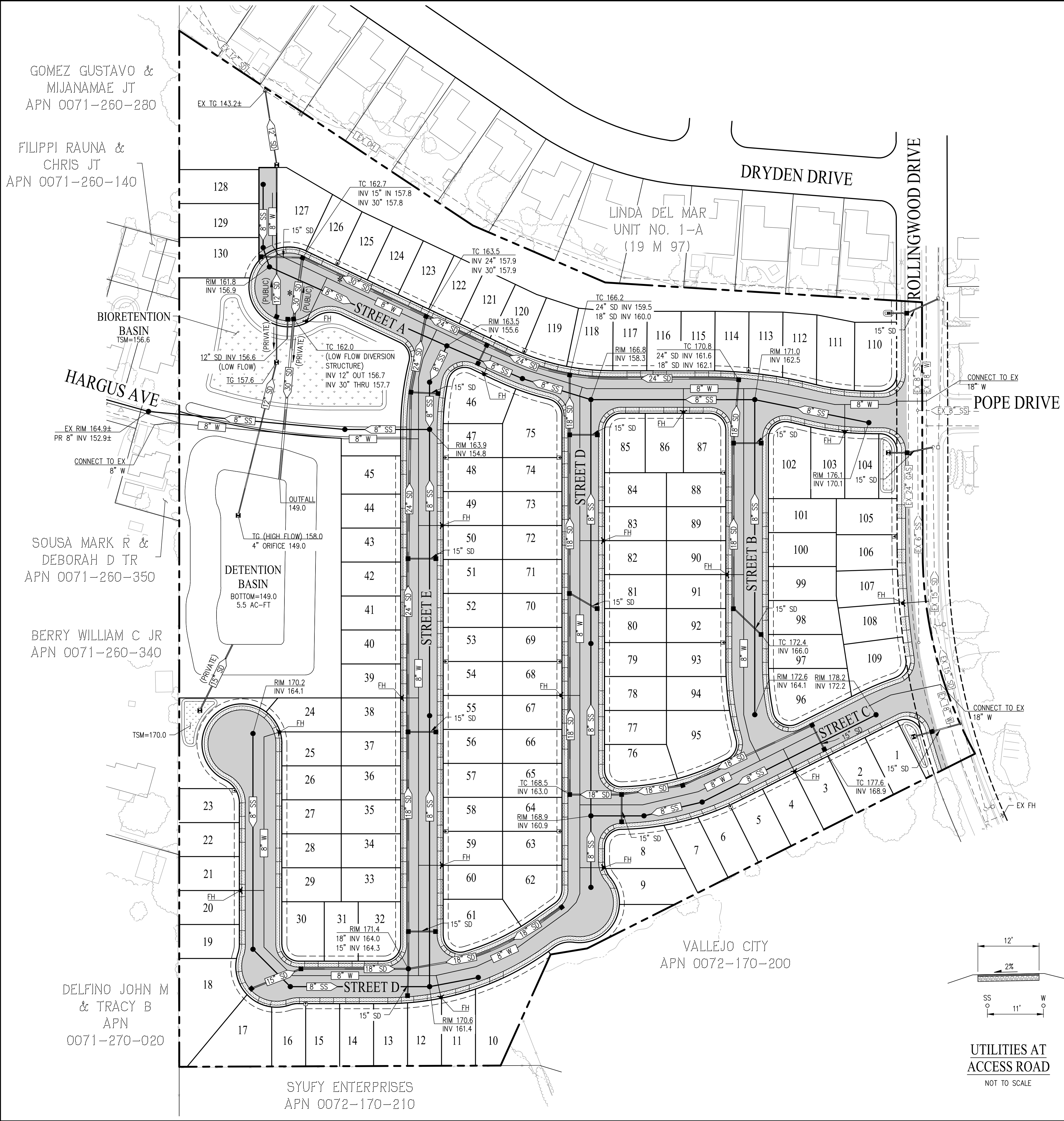
CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: JUNE 2024



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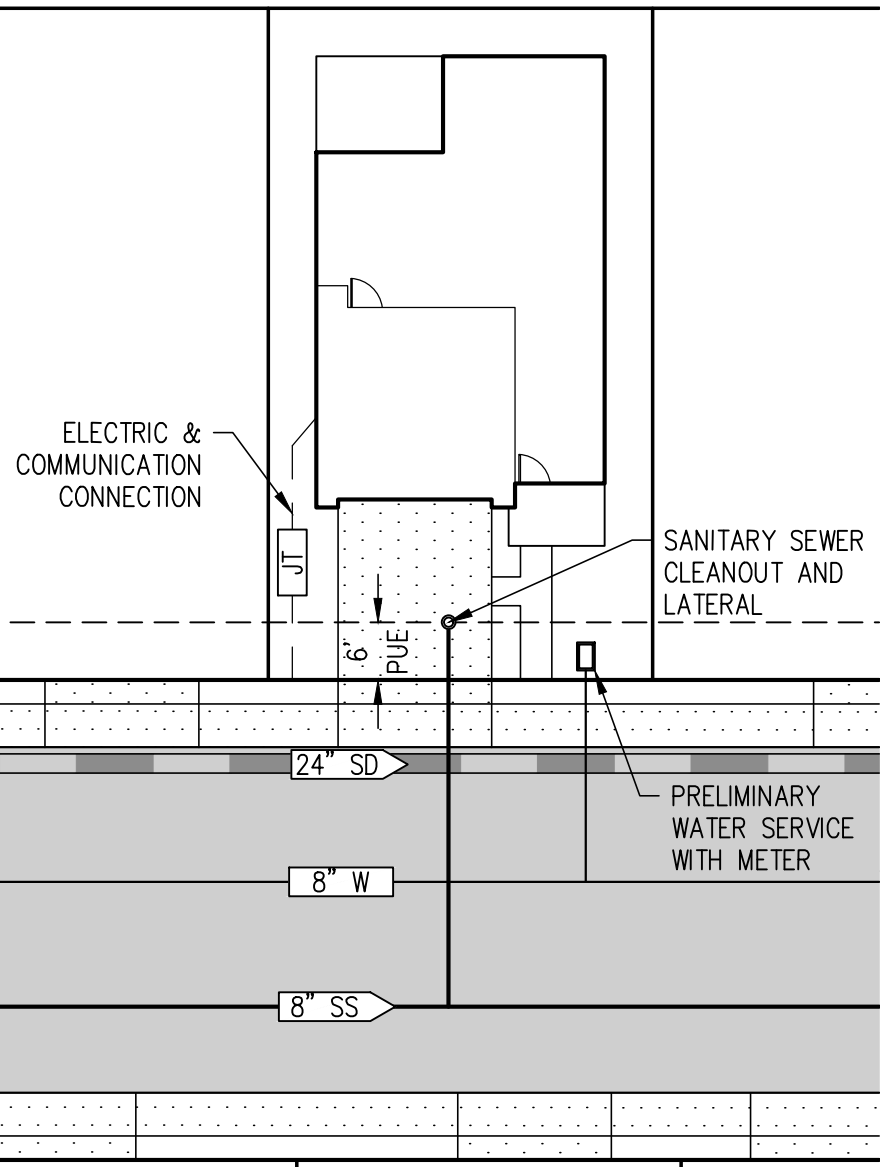
SHEET NO.
C2
OF 10 SHEETS

JOB NO.: 3446-010



LEGEND

- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED FACE OF CURB
- EXISTING EASEMENT
- SD STORM DRAIN
- SS SANITARY SEWER
- W WATER LINE
- MANHOLE
- CATCH BASIN
- FIELD INLET
- FIRE HYDRANT
- TRANSFORMER



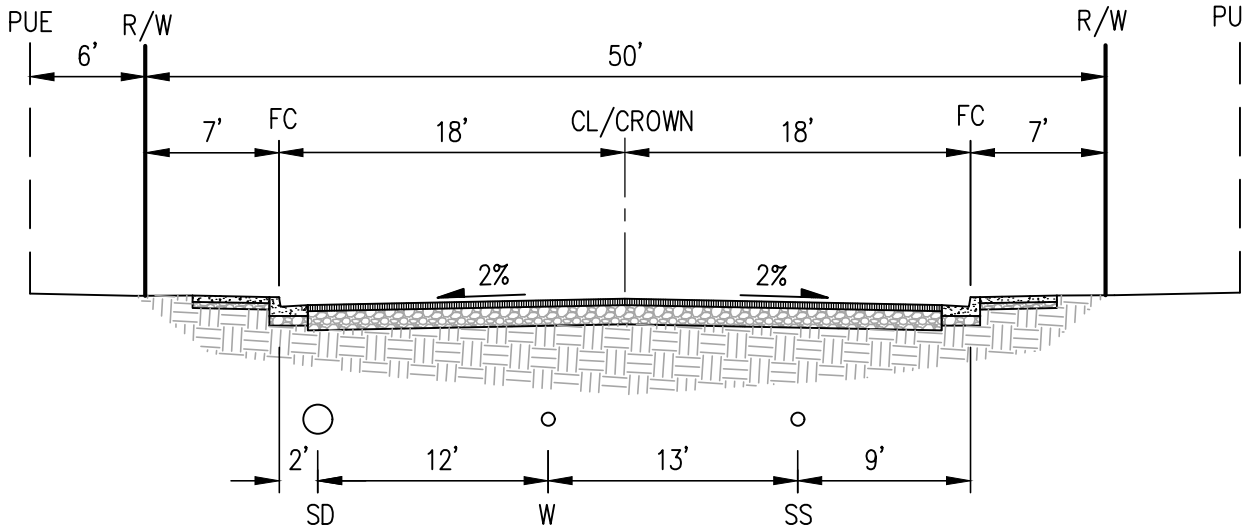
TYPICAL LOT UTILITIES
SCALE: 1" = 20'

GENERAL UTILITY NOTES

- ALL PROPOSED UTILITIES SHOWN ARE PRELIMINARY AND SUBJECT TO FINAL DESIGN.
- ALL EXISTING UTILITIES ARE APPROXIMATE AND SHALL BE VERIFIED.
- MINIMUM SLOPE FOR SEWER PIPE IS 0.0052 PER CITY STANDARDS. SEWER MANHOLES TO HAVE 0.1' DROP PER CITY STANDARDS. INVERTS SHOWN ARE THE HIGHER INVERT WHERE THERE IS A DROP.
- ALL SEWER, STORM DRAIN AND WATER PIPE/INFRASTRUCTURE SHALL BE PUBLIC UNLESS OTHERWISE NOTED.
- BIORETENTION BASIN & DETENTION BASIN SHALL BE PRIVATE AND MAINTAINED BY THE HOA WITH AN EASEMENT IN FAVOR OF THE CITY AND VWD FOR EMERGENCY MAINTENANCE/INSPECTION PURPOSES.

*PIPE COVER NOTE

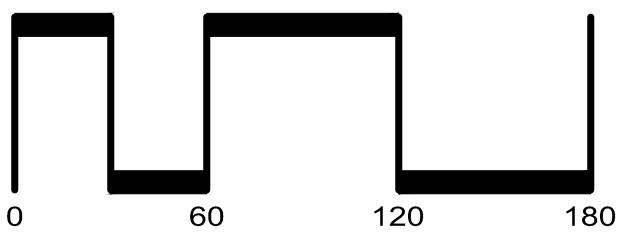
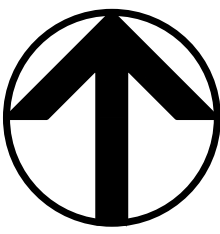
- STORM DRAIN PIPE SECTIONS WITH LESS THAN 3' MINIMUM COVER ARE NOTED AND A HIGHER MATERIAL CLASS SHALL BE UTILIZED.



TYPICAL UTILITY SECTION
NOT TO SCALE

VESTING TENTATIVE MAP
PRELIMINARY UTILITY PLAN
201 ROLLINGWOOD DR - SUB #

CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: JUNE 2024

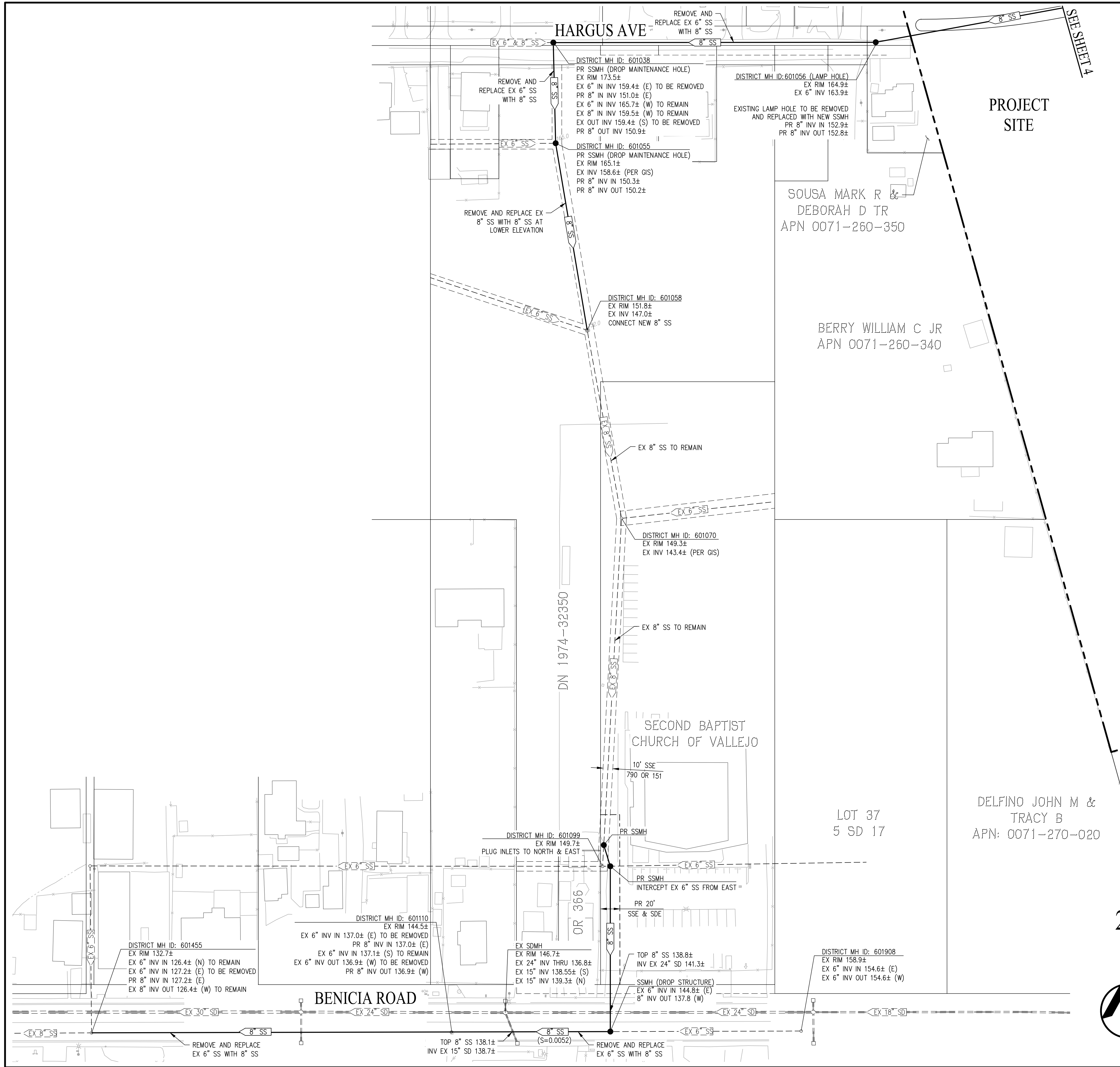


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SHEET NO.
C4
OF 10 SHEETS

JOB NO.: 3446-010

UTILITIES AT
ACCESS ROAD
NOT TO SCALE



LEGEND

- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED FACE OF CURB
- EXISTING EASEMENT
- SD STORM DRAIN
- SS SANITARY SEWER
- W WATER LINE
- MANHOLE
- CATCH BASIN
- FIELD INLET
- FIRE HYDRANT

VESTING TENTATIVE MAP
PRELIMINARY OFFSITE
SEWER PLAN
201 ROLLINGWOOD DR - SUB # _____

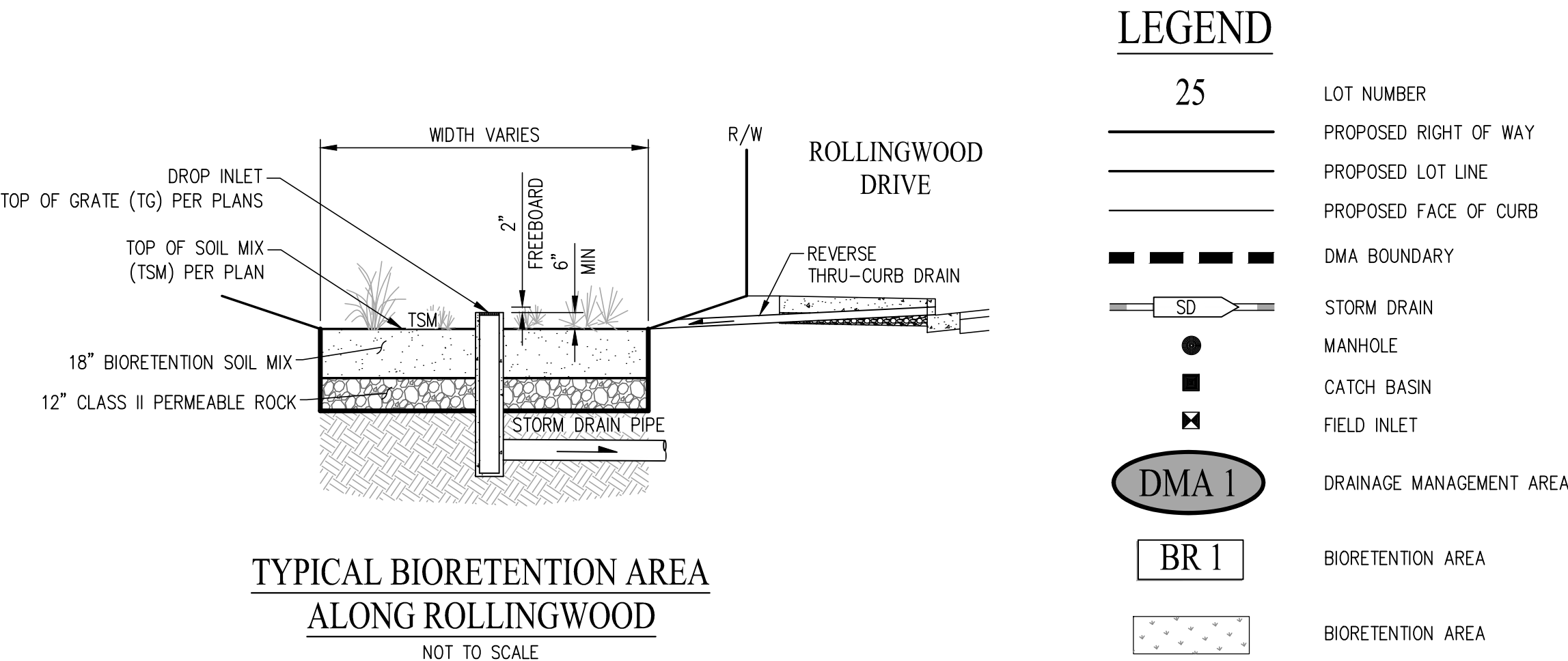
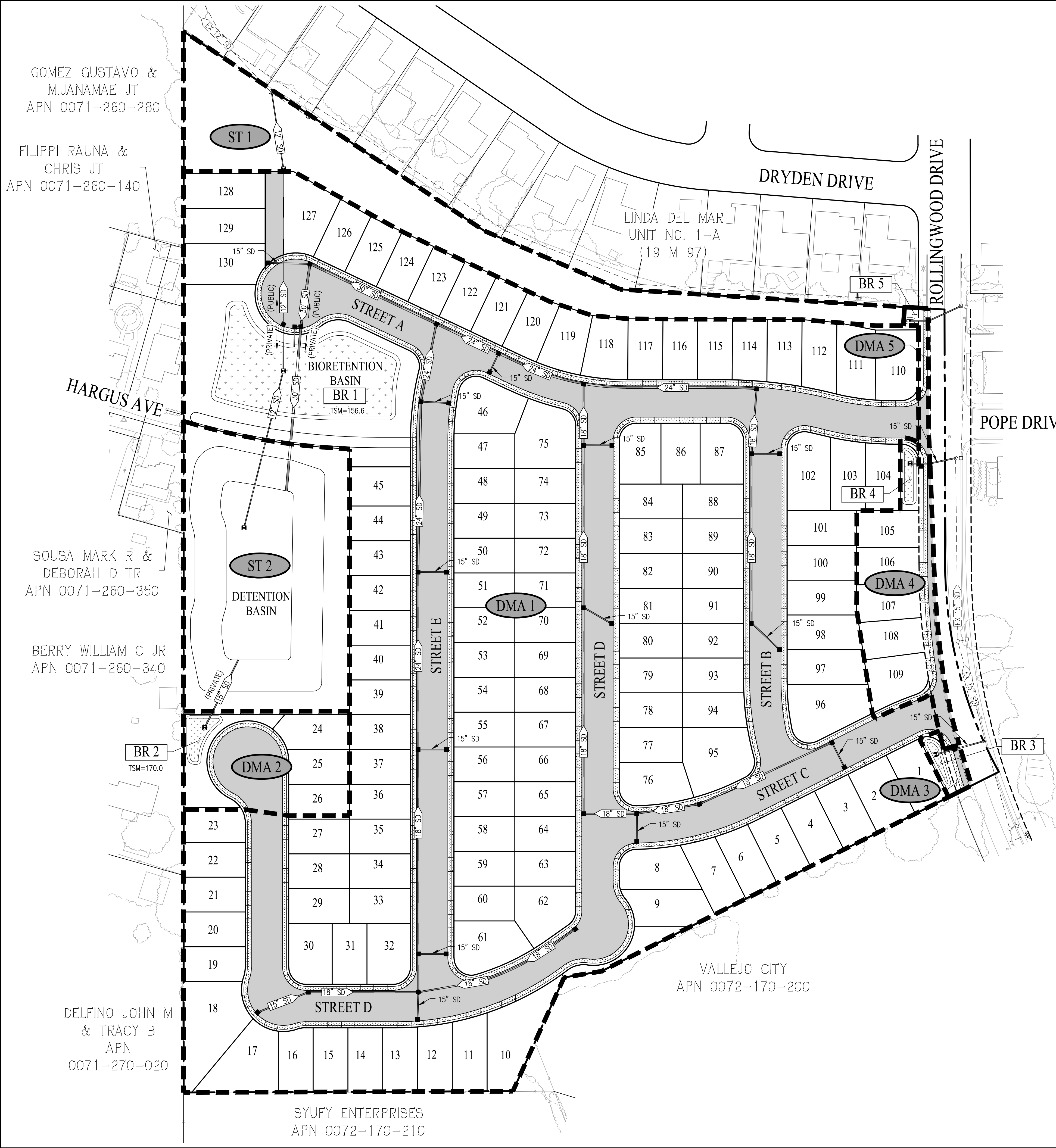
CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 50' DATE: JUNE 2024

CIVIL ENGINEERS SURVEYORS PLANNERS

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JOB NO.: 3446-010

SHEET NO.
C5
OF 10 SHEETS



PRELIMINARY STORMWATER TREATMENT CALCULATIONS								
DRAINAGE MANAGEMENT AREA (DMA)	IMPERVIOUS AREA			TOTAL PERVIOUS (SF)	TOTAL DRAINAGE AREA (SF)	REQUIRED TREATMENT VOLUME (SF)	PROVIDED TREATMENT VOLUME (SF)	TREATMENT TYPE
	PAVEMENT (SF)	ROOF (SF)	TOTAL (SF)					
DMA #1	228,650	157,720	386,370	222,580	608,950	16,345	16,737	BIORETENTION
DMA #2	9,120	3,660	12,780	9,455	22,235	549	943	BIORETENTION
* DMA #3	260	0	260	1,960	2,220	18	301	BIORETENTION
* DMA #4	4,415	5,965	10,380	13,005	23,385	468	582	BIORETENTION
* DMA #5	1,535	0	1,535	875	2,410	65	65	BIORETENTION
ST #1	0	0	0	44,565	44,565	-	-	SELF TREATING
ST #2	0	0	0	59,815	59,815	-	-	SELF TREATING

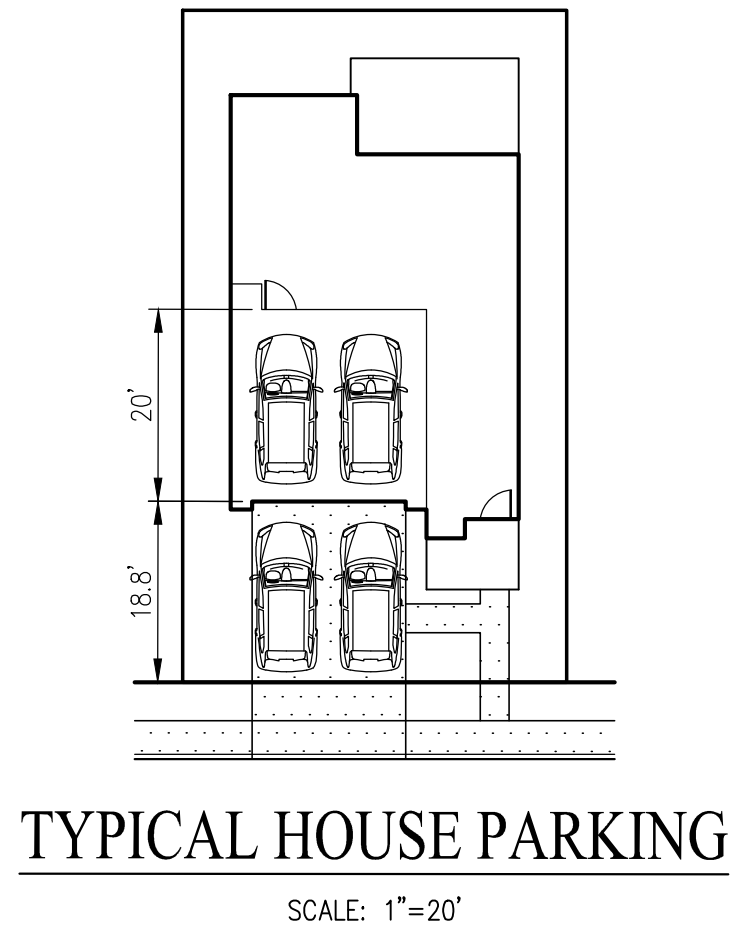
- NOTES:
1. TREATMENT AREA CALCULATIONS UTILIZE THE 4% SIZING FACTOR.
 2. STORM WATER CONTROL PLAN IS PRELIMINARY AND SUBJECT TO FINAL DESIGN.
 3. THE FINAL PROJECT CONTROL PLAN AND REPORT TO BE SUBMITTED AND APPROVED WITH CONSTRUCTION DOCUMENTS WILL BE IN CONFORMANCE WITH THE BASMAA POST-CONSTRUCTION MANUAL: DESIGN GUIDANCE FOR STORMWATER TREATMENT AND CONTROL FOR PROJECTS IN MARIN, SONOMA, NAPA, AND SOLANO COUNTIES DATED JANUARY 2019.
 4. DURING CONSTRUCTION DOCUMENTS, PROJECT SHALL UTILIZE THE FLOW-VOLUME COMBINATION METHOD (BAHM MODEL) IF PERMITTED BY CITY OF VALLEJO AS THE METHOD IS PERMITTED BY THE STATE WATER RESOURCES CONTROL BOARD.
 - * 5. OFFSITE BIORETENTION HAS BEEN SIZED TO TREAT NEW IMPERVIOUS SURFACES ONLY.

VESTING TENTATIVE MAP
PRELIMINARY STORMWATER
MANAGEMENT PLAN
201 ROLLINGWOOD DR - SUB # _____

CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: JUNE 2024

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SHEET NO. **C6**
OF 10 SHEETS



PARKING SUMMARY		
PARKING TYPE	PARKING REQUIRED	PARKING PROVIDED
GARAGE (COVERED)	130 (1 PER UNIT)	260 (2 PER UNIT)
DRIVEWAY	-	260 (2 PER UNIT)
ON-STREET (INTERNAL)	-	107
ON-STREET (ROLLINGWOOD)	-	10
TOTAL	130 (1 PER UNIT)	637

LEGEND & ABBREVIATIONS

- PROPOSED SIGN
- STREET NAME SIGN
- "STOP" PAVEMENT MARKING WITH 12" WHITE LINE (LETTERING TO BE 4' MIN BEHIND STOP BAR)
- REFLECTIVE "BLUE MARKER" FIRE HYDRANT MARKER
- FIRE HYDRANT
- RED CURB
- R1-1 STOP SIGN
- R100B (CA) UNAUTHORIZED VEHICLES TOW AWAY SIGN
- SNS STREET NAME SIGN
- W14-2 NO OUTLET SIGN
- PARKING SPACE (8'x20')

NOTES:

- ALL SIGNING AND STRIPING (EXCEPT STREET NAME SIGNS) SHALL BE INSTALLED PER THE LATEST EDITION OF CALTRANS STANDARD PLANS, THE MOST RECENT EDITION OF THE CALIFORNIA SUPPLEMENT, AND/OR THE SIGN DESIGNATIONS FROM THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD). SIGNS MAY BE INSTALLED ON ADJACENT ELECTROLIERS WHERE FEASIBLE. ALL SIGN DESIGNATIONS ON PLAN ARE PER THE MUTCD WHERE APPLICABLE.
- ALL STREET NAME SIGNS SHALL BE INSTALLED PER CITY STANDARD.
- PAVEMENT MARKINGS SHALL BE THERMOPLASTIC OR RAISED PAVEMENT MARKERS PER THE STRIPING DETAIL CALLOUTS AND CONFORM TO THE CURRENT STATE STANDARD SPECIFICATIONS.

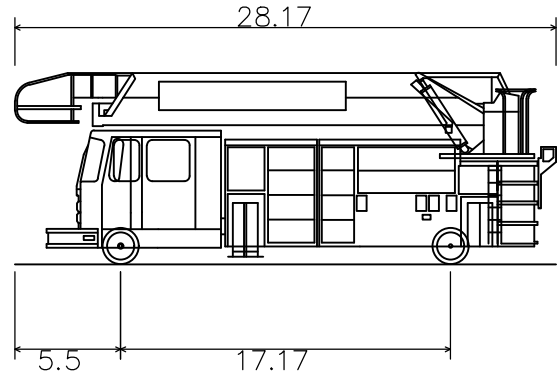
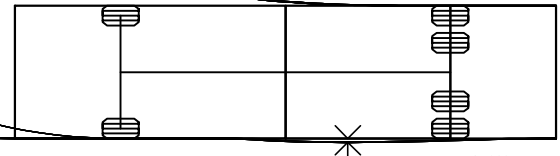
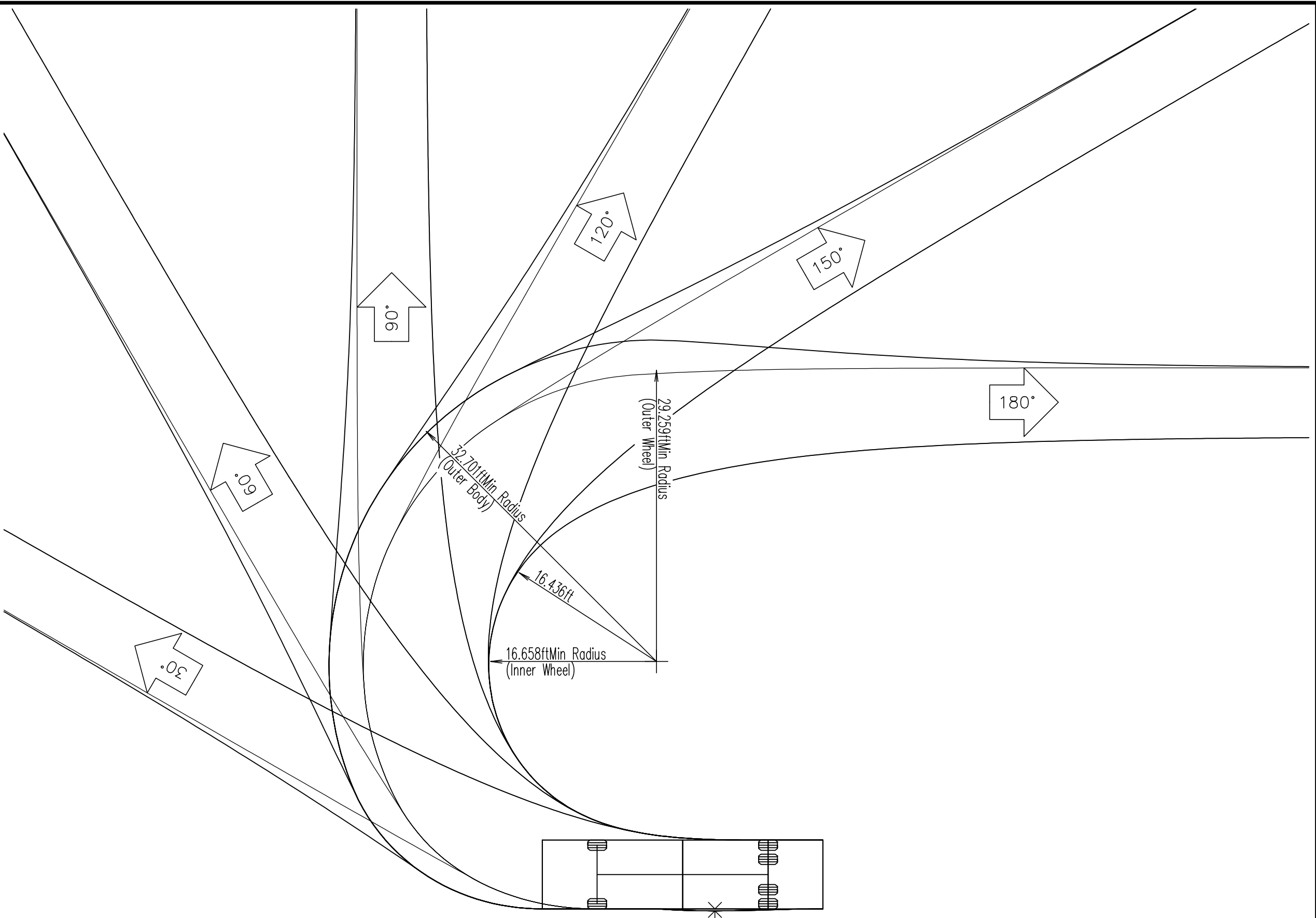
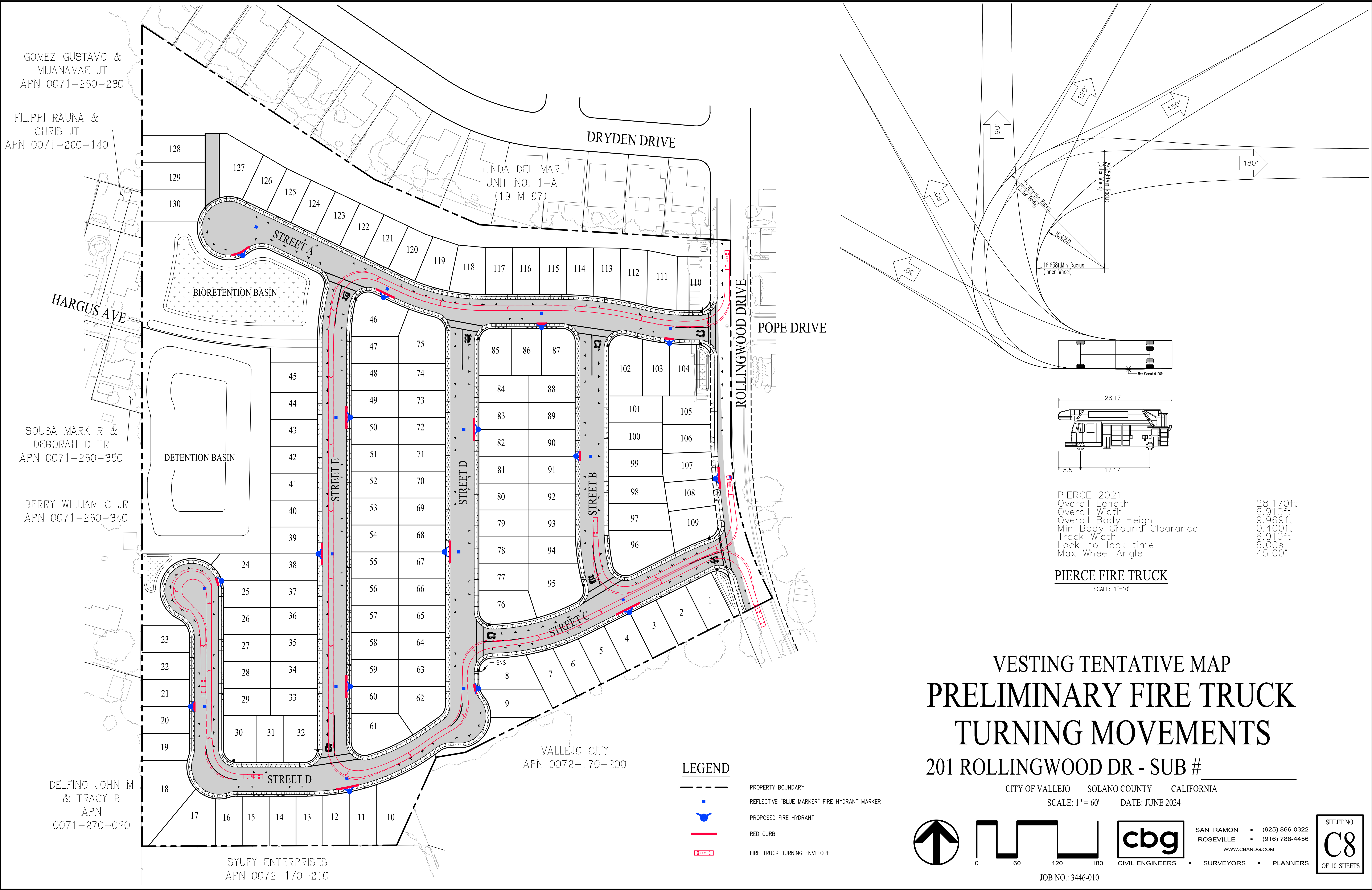
VESTING TENTATIVE MAP
PRELIMINARY SIGNING AND
STRIPING PLAN
201 ROLLINGWOOD DR - SUB # _____

CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: JUNE 2024

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SHEET NO.
C7
OF 10 SHEETS

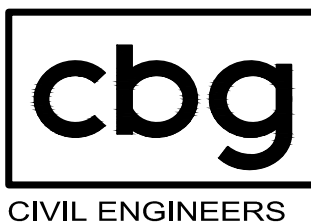
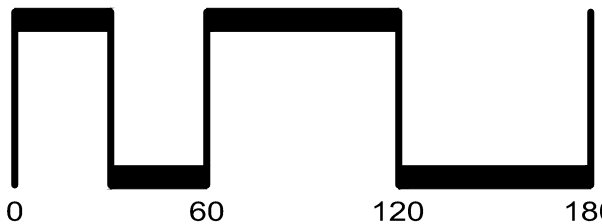
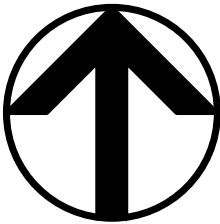


PIERCE 2021	
Overall Length	28.170ft
Overall Width	6.910ft
Overall Body Height	9.969ft
Min Body Ground Clearance	0.400ft
Track Width	6.910ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

PIERCE FIRE TRUCK
SCALE: 1"=10'

VESTING TENTATIVE MAP
PRELIMINARY FIRE TRUCK
TURNING MOVEMENTS
201 ROLLINGWOOD DR - SUB # _____

CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: JUNE 2024



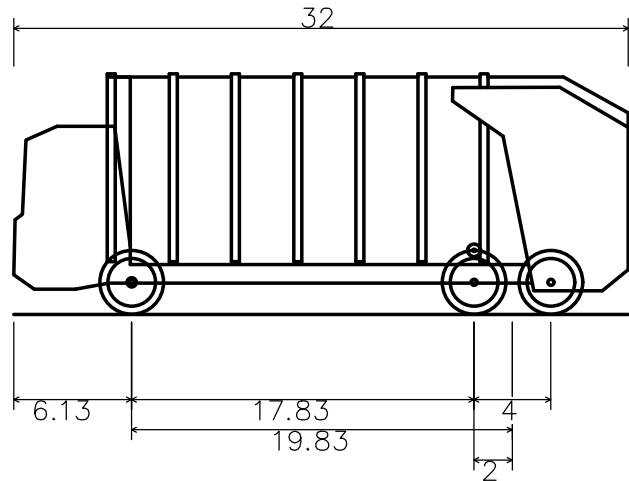
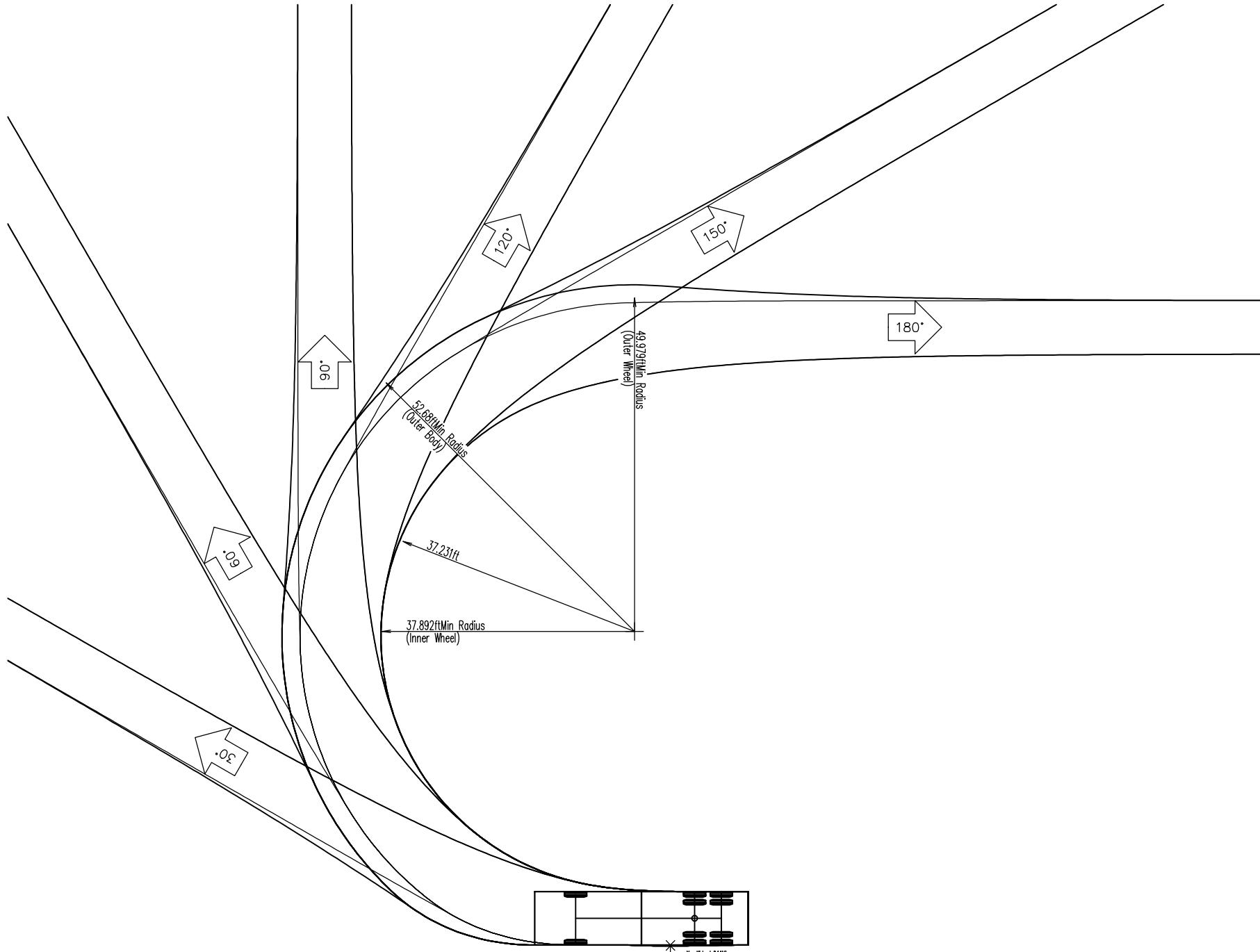
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SHEET NO.
C8
OF 10 SHEETS

JOB NO.: 3446-010

LEGEND

- PROPERTY BOUNDARY
- REFLECTIVE "BLUE MARKER" FIRE HYDRANT MARKER
- PROPOSED FIRE HYDRANT
- RED CURB
- FIRE TRUCK TURNING ENVELOPE



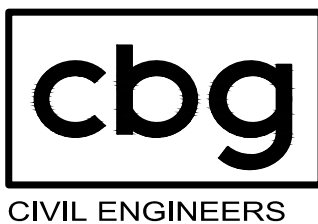
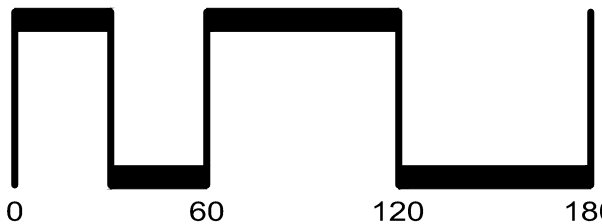
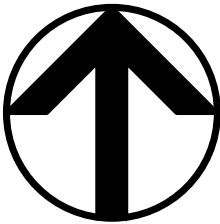
GARBAGE TRUCK	
Overall Length	32.000ft
Overall Width	8.000ft
Overall Body Height	12.538ft
Min Body Ground Clearance	1.227ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Max Wheel Angle	27.40°

TYPICAL SOLID WASTE TRUCK
TURNING TEMPLATE

SCALE: 1"=10'

VESTING TENTATIVE MAP
PRELIMINARY SOLID WASTE
TRUCK TURNING MOVEMENTS
201 ROLLINGWOOD DR - SUB # _____

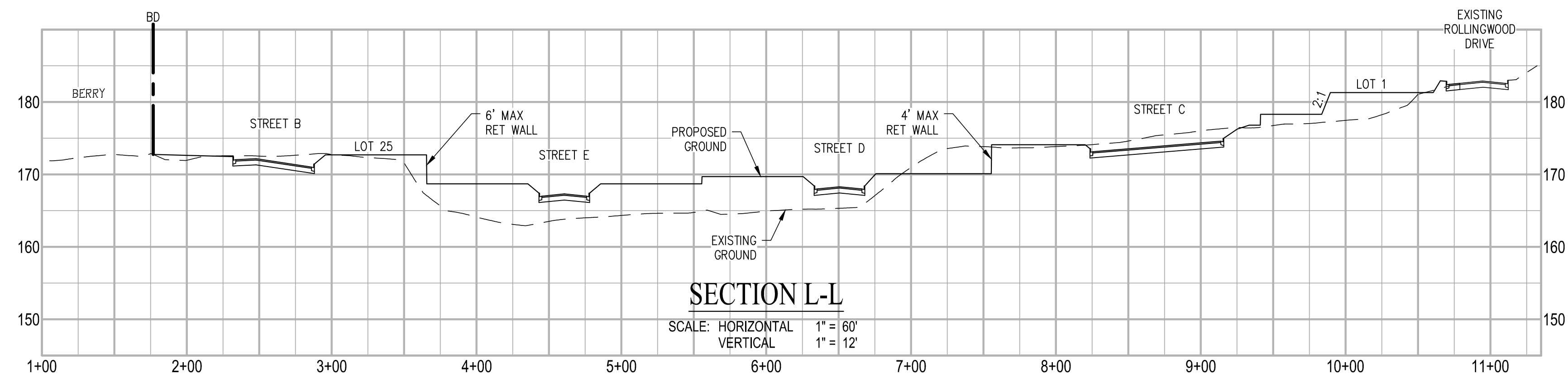
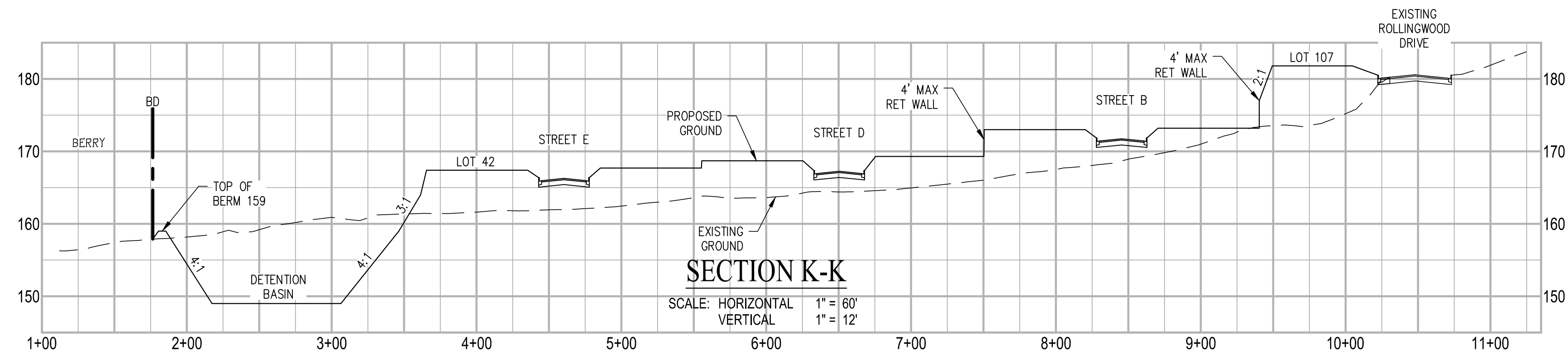
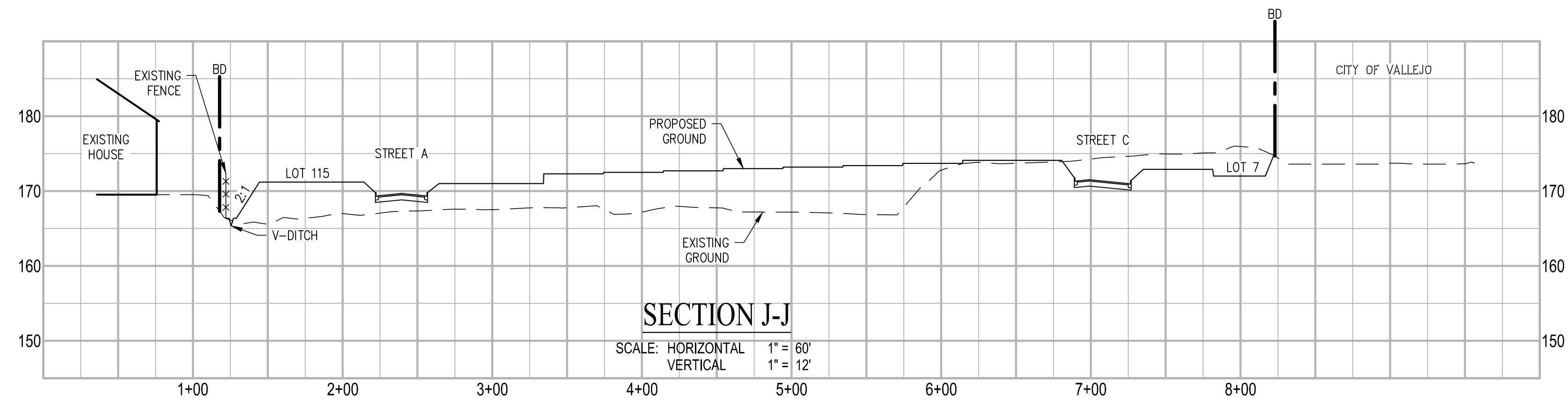
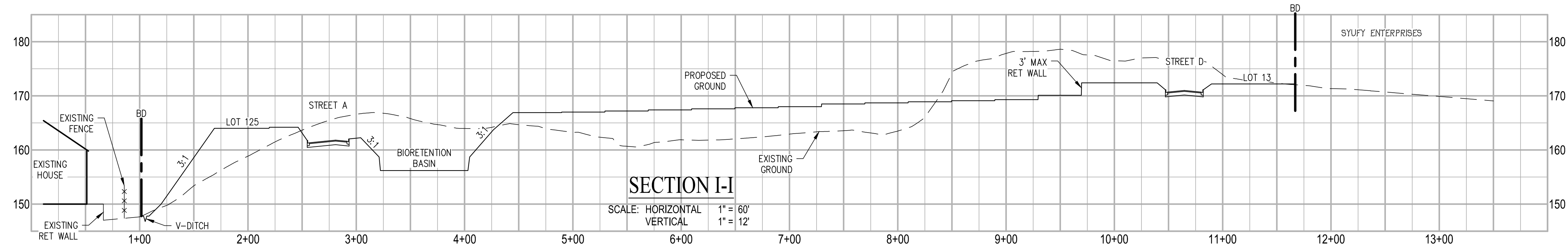
CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: JUNE 2024



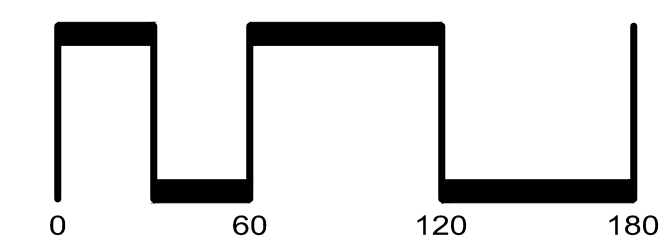
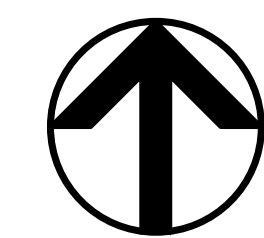
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SHEET NO.
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JOB NO.: 3446-010



VESTING TENTATIVE MAP
SITE CROSS SECTIONS
201 ROLLINGWOOD DR - SUB # _____
CITY OF VALLEJO SOLANO COUNTY CALIFORNIA
SCALE: 1" = 60' DATE: JUNE 2024



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SHEET NO.
C10
OF 10 SHEETS

JOB NO.: 3446-010



Plan View
Scale - 1" = 20ft

DISCLAIMER
This application design is not a professional engineering drawing, and the design, including reported data and calculated results, is provided for informational purposes only, without any warranty as to accuracy, completeness, safety or otherwise. The design is the result of calculations made using Visual® lighting application software, photometric/radiometric data measured in a laboratory, and certain computational and modeling assumptions. Far-field photometric/radiometric data may have been used to perform one or more calculations. Photometric/radiometric data is typically collected under far-field measurement conditions; far-field data is not generally representative of near-field geometric conditions. When using far-field photometric/ radiometric data, the Visual software applies certain generalizing assumptions to approximate near-field performance. These approximations may result in significant inaccuracies in individual calculated luminous and/or radiant power quantities in areas where a source is in close proximity to a particular surface or point. The modeling of radiant flux exchange used in the Visual software requires a uniform exitance across each reflecting surface. The Visual software approximates the uniform surface exitance condition by adaptively subdividing surfaces with non-uniform exitances into subsurfaces with sufficiently uniform exitance gradients. Practical restrictions, due to computer hardware limitations, may prevent the subdivision procedure from subdividing surfaces with high exitance gradients into subsurfaces with sufficiently uniform exitance gradients, introducing potential discretization error into calculated values. Calculations performed by the Visual software assume that all reflected flux is reflected in a perfectly diffuse (Lambertian) and spectrally uniform manner across the spectral range being analyzed. If actual reflectance characteristics differ from these assumptions, observed luminous and/or radiant power quantities may differ from predicted quantities. As a result of the computational limitations and simplifying modeling assumptions described above, and/or variations in actual product performance from tested product samples, the accuracy of calculated output values identifying expected radiometric quantities and any resulting derived radiation dose calculations may be adversely affected. In addition, the accuracy of the application design may be adversely affected if information about the physical space provided to Acuity Brands Lighting is incomplete, inaccurate, outdated or not in the required format (including but not limited to floor plans, space layout, reflected ceiling plans, physical structures, electrical design or specifications), if incorrect assumptions are made because of such deficiencies in the information provided, or if typical assumptions made about the depicted physical space are not appropriate for the space. Furthermore, actual field performance may differ from performance calculated using laboratory measurements as the result of miscalculations related to deficiencies in the information provided about the physical space, degradation factors in the end- user environment (including, but not limited to, voltage variation and dirt accumulation), or other possible variations in field conditions. Finally, lamp lumen depreciation and/or depreciation in lamp radiant intensity may result in performance over time that differs from performance calculated using a new lamp. Light loss factors may have been used in the application design to estimate such depreciation, but flaws in these estimates may also result in performance over time that differs from calculated performance. It is the obligation of the end-user to consult with appropriately qualified Professional Engineer(s) to determine whether this application design meets the applicable requirements for performance, code compliance, safety, suitability and effectiveness for use in a particular application. In no event will Acuity Brands Lighting be responsible for any loss resulting from any use of this application design.



Plan View - A
Scale - 1" = 20ft

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Luminaire Locations										
Location								Aim		
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
1	A	6500985.00	1795236.00	14.00	14.00	1.19	0.00	6500985.00	1795236.00	0.00
2	A	6501139.00	1795264.00	14.00	14.00	330.64	0.00	6501139.00	1795264.00	0.00
3	A	6500821.00	1795290.00	14.00	14.00	90.00	0.00	6500821.00	1795290.00	0.00
4	A	6500917.00	1795279.00	14.00	14.00	180.00	0.00	6500917.00	1795279.00	0.00
5	A	6501067.00	1795290.00	14.00	14.00	214.97	0.00	6501067.00	1795290.00	0.00
6	A	6501010.00	1795306.00	14.00	14.00	90.00	0.00	6501010.00	1795306.00	0.00
7	A	6501210.00	1795311.00	14.00	14.00	321.31	0.00	6501210.00	1795311.00	0.00
8	A	6500866.00	1795349.00	14.00	14.00	270.00	0.00	6500866.00	1795349.00	0.00
9	A	6501197.00	1795393.00	14.00	14.00	96.35	0.00	6501197.00	1795393.00	0.00
10	A	6501054.00	1795401.00	14.00	14.00	270.00	0.00	6501054.00	1795401.00	0.00
11	A	6500821.00	1795444.00	14.00	14.00	90.00	0.00	6500821.00	1795444.00	0.00
12	A	6501287.00	1795436.00	14.00	14.00	349.58	0.00	6501287.00	1795436.00	0.00
13	A	6501199.00	1795473.00	14.00	14.00	90.00	0.00	6501199.00	1795473.00	0.00
14	A	6501011.00	1795501.00	14.00	14.00	90.00	0.00	6501011.00	1795501.00	0.00
15	A	6501344.00	1795499.00	14.00	14.00	161.13	0.00	6501344.00	1795499.00	0.00
16	A	6500793.00	1795500.00	14.00	14.00	29.70	0.00	6500793.00	1795500.00	0.00
17	A	6501476.00	1795506.00	14.00	14.00	337.37	0.00	6501476.00	1795506.00	0.00
18	A	6500866.00	1795513.00	14.00	14.00	270.00	0.00	6500866.00	1795513.00	0.00
19	A	6501397.00	1795534.00	14.00	14.00	112.07	0.00	6501397.00	1795534.00	0.00
20	A	6501600.00	1795568.00	14.00	14.00	337.84	0.00	6501600.00	1795568.00	0.00
21	A	6501243.00	1795577.00	14.00	14.00	270.00	0.00	6501243.00	1795577.00	0.00
22	A	6500813.00	1795586.00	14.00	14.00	176.20	0.00	6500813.00	1795586.00	0.00
23	A	6501440.00	1795585.00	14.00	14.00	263.79	0.00	6501440.00	1795585.00	0.00
24	A	6501524.00	1795588.00	14.00	14.00	156.46	0.00	6501524.00	1795588.00	0.00
25	A	6501053.00	1795594.00	14.00	14.00	270.00	0.00	6501053.00	1795594.00	0.00
26	A	6501200.00	1795666.00	14.00	14.00	90.00	0.00	6501200.00	1795666.00	0.00
27	A	6501393.00	1795659.00	14.00	14.00	90.00	0.00	6501393.00	1795659.00	0.00
28	A	6501011.00	1795678.00	14.00	14.00	90.00	0.00	6501011.00	1795678.00	0.00
29	A	6501439.00	1795756.00	14.00	14.00	270.00	0.00	6501439.00	1795756.00	0.00
30	A	6501243.00	1795762.00	14.00	14.00	270.00	0.00	6501243.00	1795762.00	0.00
31	A	6501054.00	1795783.00	14.00	14.00	270.00	0.00	6501054.00	1795783.00	0.00
32	A	6501201.00	1795844.00	14.00	14.00	90.00	0.00	6501201.00	1795844.00	0.00
33	A	6501391.00	1795847.00	14.00	14.00	90.00	0.00	6501391.00	1795847.00	0.00
34	A	6501010.00	1795877.00	14.00	14.00	90.00	0.00	6501010.00	1795877.00	0.00
35	A	6501243.00	1795897.00	14.00	14.00	271.36	0.00	6501243.00	1795897.00	0.00
36	A	6501440.00	1795900.00	14.00	14.00	271.36	0.00	6501440.00	1795900.00	0.00
37	A	6501576.00	1795950.00	14.00	14.00	184.11	0.00	6501576.00	1795950.00	0.00
38	A	6501504.00	1795956.00	14.00	14.00	189.29	0.00	6501504.00	1795956.00	0.00
39	A	6501139.00	1795956.00	14.00	14.00	22.17	0.00	6501139.00	1795956.00	0.00
40	A	6501057.00	1795965.00	14.00	14.00	270.00	0.00	6501057.00	1795965.00	0.00
41	A	6501414.00	1795971.00	14.00	14.00	184.40	0.00	6501414.00	1795971.00	0.00
42	A	6501331.00	1795973.00	14.00	14.00	180.00	0.00	6501331.00	1795973.00	0.00
43	A	6501237.00	1795975.00	14.00	14.00	185.17	0.00	6501237.00	1795975.00	0.00
44	A	6500978.00	1796019.00	14.00	14.00	26.04	0.00	6500978.00	1796019.00	0.00
45	A	6501063.00	1796034.00	14.00	14.00	203.28	0.00	6501063.00	1796034.00	0.00
46	A	6500905.00	1796035.00	14.00	14.00	335.00	0.00	6500905.00	1796035.00	0.00
47	A	6500833.00	1796082.00	14.00	14.00	100.41	0.00	6500833.00	1796082.00	0.00
48	A	6500918.00	1796103.00	14.00	14.00	206.84	0.00	6500918.00	1796103.00	0.00

Statistics						
Description	Min	Symbol	Avg	Max	Max/Min	Avg/Min
Road Summary	0.2 fc	✕	0.7 fc	1.5 fc	7.5:1	3.5:1

Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Total Lamp Lumens	Wattage	Distribution
⌞ ⊗	A	48	Holophane	GVD3 P20 30K XXXX GL3	GranVille Gen3, P20 Performance Package, 3000K CCT, 70CRI, Type 3 distribution, no trim	1	5395	0.91	5395	39	TYPE IV, MEDIUM, BUG RATING: B2 - U4 - G4

DISCLAIMER
This application design is not a professional engineering drawing, and the design, including reported data and calculated results, is provided for informational purposes only, without any warranty as to accuracy, completeness, safety or otherwise. The design is the result of calculations made using Visual® lighting application software, photometric/radiometric data measured in a laboratory, and certain computational and modeling assumptions.
Far-field photometric/radiometric data may have been used to perform one or more calculations. Photometric/radiometric data is typically collected under far-field measurement conditions; far-field data is not generally representative of near-field geometric conditions. When using far-field photometric/ radiometric data, the Visual software applies certain generalizing assumptions to approximate near-field performance. These approximations may result in significant inaccuracies in individual calculated luminous and/or radiant power quantities in areas where a source is in close proximity to a particular surface or point.
The modeling of radiant flux exchange used in the Visual software requires a uniform exitance across each reflecting surface. The Visual software approximates the uniform surface exitance condition by adaptively subdividing surfaces with non-uniform exitances into subsurfaces with sufficiently uniform exitance gradients. Practical restrictions, due to computer hardware limitations, may prevent the subdivision procedure from subdividing surfaces with high exitance gradients into subsurfaces with sufficiently uniform exitance gradients, introducing potential discretization error into calculated values.
Calculations performed by the Visual software assume that all reflected flux is reflected in a perfectly diffuse (Lambertian) and spectrally uniform manner across the spectral range being analyzed. If actual reflectance characteristics differ from these assumptions, observed luminous and/or radiant power quantities may differ from predicted quantities.
As a result of the computational limitations and simplifying modeling assumptions described above, and/or variations in actual product performance from tested product samples, the accuracy of calculated output values identifying expected radiometric quantities and any resulting derived radiation dose calculations may be adversely affected.
In addition, the accuracy of the application design may be adversely affected if information about the physical space provided to Acuity Brands Lighting is incomplete, inaccurate, outdated or not in the required format (including but not limited to floor plans, space layout, reflected ceiling plans, physical structures, electrical design or specifications). If incorrect assumptions are made because of such deficiencies in the information provided, or if typical assumptions made about the depicted physical space are not appropriate for the space. Furthermore, actual field performance may differ from performance calculated using laboratory measurements as the result of miscalculations related to deficiencies in the information provided about the physical space, degradation factors in the end- user environment (including, but not limited to, voltage variation and dirt accumulation), or other possible variations in field conditions. Finally, lamp lumen depreciation and/or depreciation in lamp radiant intensity may result in performance over time that differs from performance calculated using a new lamp. Light loss factors may have been used in the application design to estimate such depreciation, but flaws in these estimates may also result in performance over time that differs from calculated performance.
It is the obligation of the end-user to consult with appropriately qualified Professional Engineer(s) to determine whether this application design meets the applicable requirements for performance, code compliance, safety, suitability and effectiveness for use in a particular application. In no event will Acuity Brands Lighting be responsible for any loss resulting from any use of this application design.



GVD3
Granville Classic Utility LED3

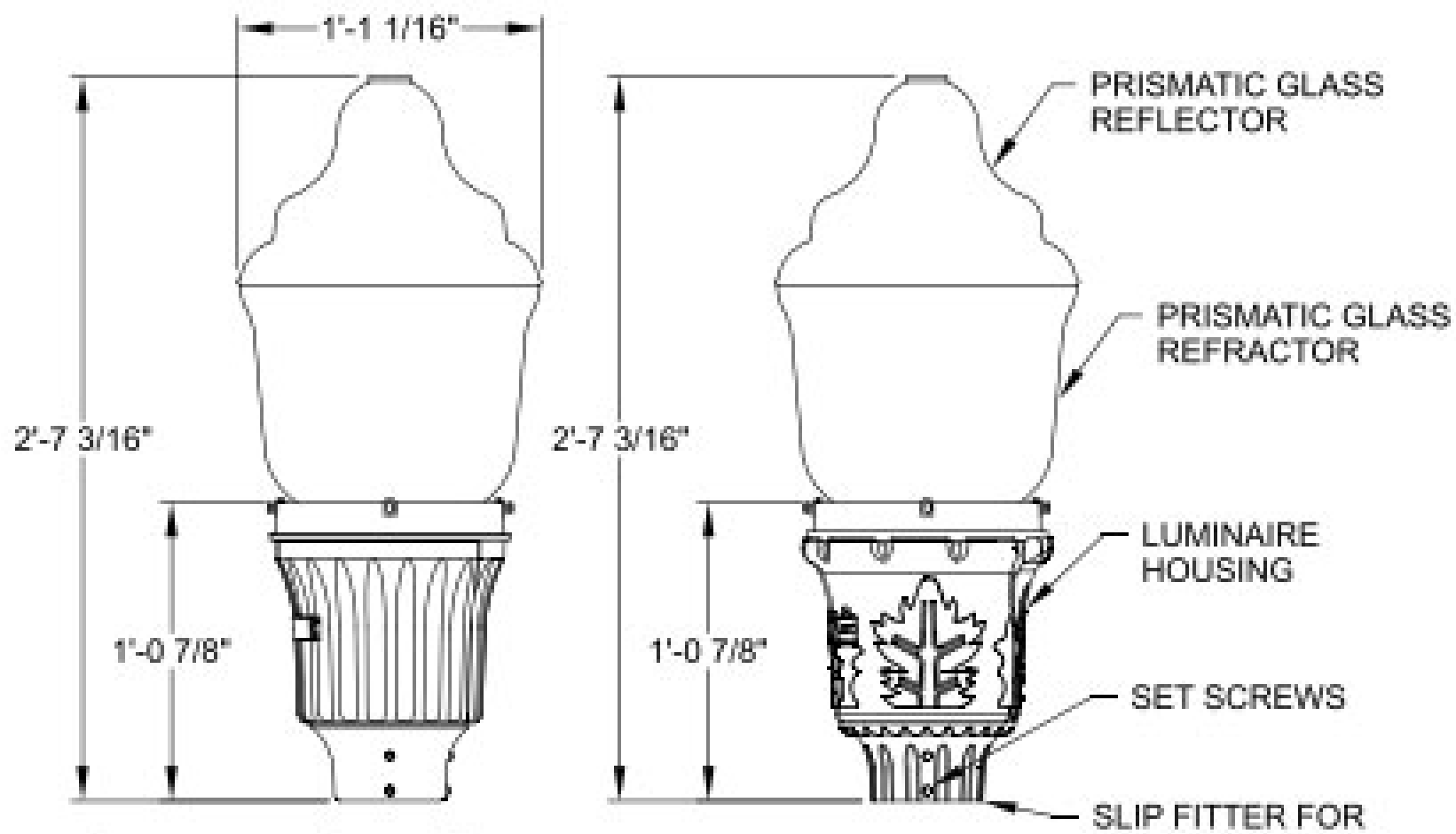
SPECIFICATIONS

General Description
The GranVille Classic Utility LED3 is designed for ease of maintenance with the plug-in electrical module common to each of the luminaires in Holophane's Utility Luminaire Series. The traditional acorn-shaped luminaire, while reminiscent of the 1920's, contains a powerful, stalk-mounted Chip-On-Board LED platform with a precision optical system that maximizes post spacings while maintaining uniform illumination.

Mechanical Specifications
The luminaire housing shall:
• Be heavy grade A360 cast aluminum (aluminum with <1% copper)
• IP55 rated housing provides tool-less access with a spring-loaded latch
• Incorporate a hidden hinge door allowing the door to swing open and remain open
• Offer units with an EET- NEMA twist lock photocontrol receptacle, the housing contains a tempered glass window to allow light to reach the cell
• Mount to slip-fitter that will accept 3" high by 2-7/8" to 3-1/8" O.D. pole tenon
• Provide four uniquely designed stainless steel spring clips, enclosed in a clear polyvinyl chloride sleeve and adjusted by 1/4-20 hex-head bolts that securely cradle the prismatic glass refractor. The same ¼-20 bolts also support the decorative rib and banding assembly.
The finish shall:
• Utilize a polyester power coat paint to ensure maximum durability
• Rigorous multi-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117) on standard and RAL finish options.
• RAL (RALxxxxSDCR) paint colors are Super Durable Corrosion Resistant, 80% gloss.

Electrical Specifications
The driver shall meet the following requirements:
• Certified by UL or CSA for wet locations
• A factory programmable electronic driver with 0-10V dimming control leads
• LEDs shall have a minimum of 70 CRI and available in 2700K, 3000K, 4000K, and 5000K CCT
• The electrical system shall be designed to meet ANSI/IEEE C62.41.2 and shall offer a 10kV/5kA surge protection, fail off, as standard with an upgradable 20kV/10kA surge protection, fail off with indicator light, option
• Lumen output can be customized prior to manufacturing by way of FPDxx Options
• The electrical components are mounted on an aluminum plate that is removeable with minimum use of tools. A matching five conductor plug connects to the receptacle in the luminaire housing to complete the wiring. For photoelectric operation, the electrical module is provided with an EET-NEMA twist-lock photocell receptacle.

Catalog Number	
Notes	Type



Maximum weight - 47 lbs
Maximum effective projected area - 1.38 sq. ft.



Optical Specifications
The optical system is IP66 rated and consists of a precisely molded thermal resistant borosilicate glass refractor and top reflector mounted within the decorative glass optic. The top reflector redirects over 50% of the upward light into the controlling refractor while allowing a soft up-light component to define the traditional acorn shape of the luminaire. The lower refractor uses precisely molded prisms to maximize the pole spacings while maintaining uniform illumination. Two refractors are available, designed for IES type III and V distributions. Lunar Optics shielding is available for asymmetric and symmetric distributions.

Control Options
The control options shall include, but not limited to, the following:
• Field adjustable output to adjust output to luminaire - AO
• Long life photocontrol, 20 years - PCLL P34 and P48 with DTL
• 7 pin receptacles internally in housing (PR7) or inside glass mounted (PR7E - not for use with photocontrols & nodes must have photocontrol disabled)
• nLight Air r5BOR6 outdoor fixture-mounted motion and photo-sensor, features a dual radio to communicate wirelessly to other nLight Air devices for group response to motion, on/off control in response to daylight and by switch - R5BOR6
• Fixture embedded nLight Air network interface for individual fixture control and dimming - NLTAIR2.

Certification and Standards
• Luminaire shall be UL or CSA listed.
• Suitable for operation in an ambient temperature up to 40°C / 105°F per UL or CSA certification
• LM79 compliant
• DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check with the DLC Qualified Products List at www.designlights.org/DLP to confirm which versions are qualified.

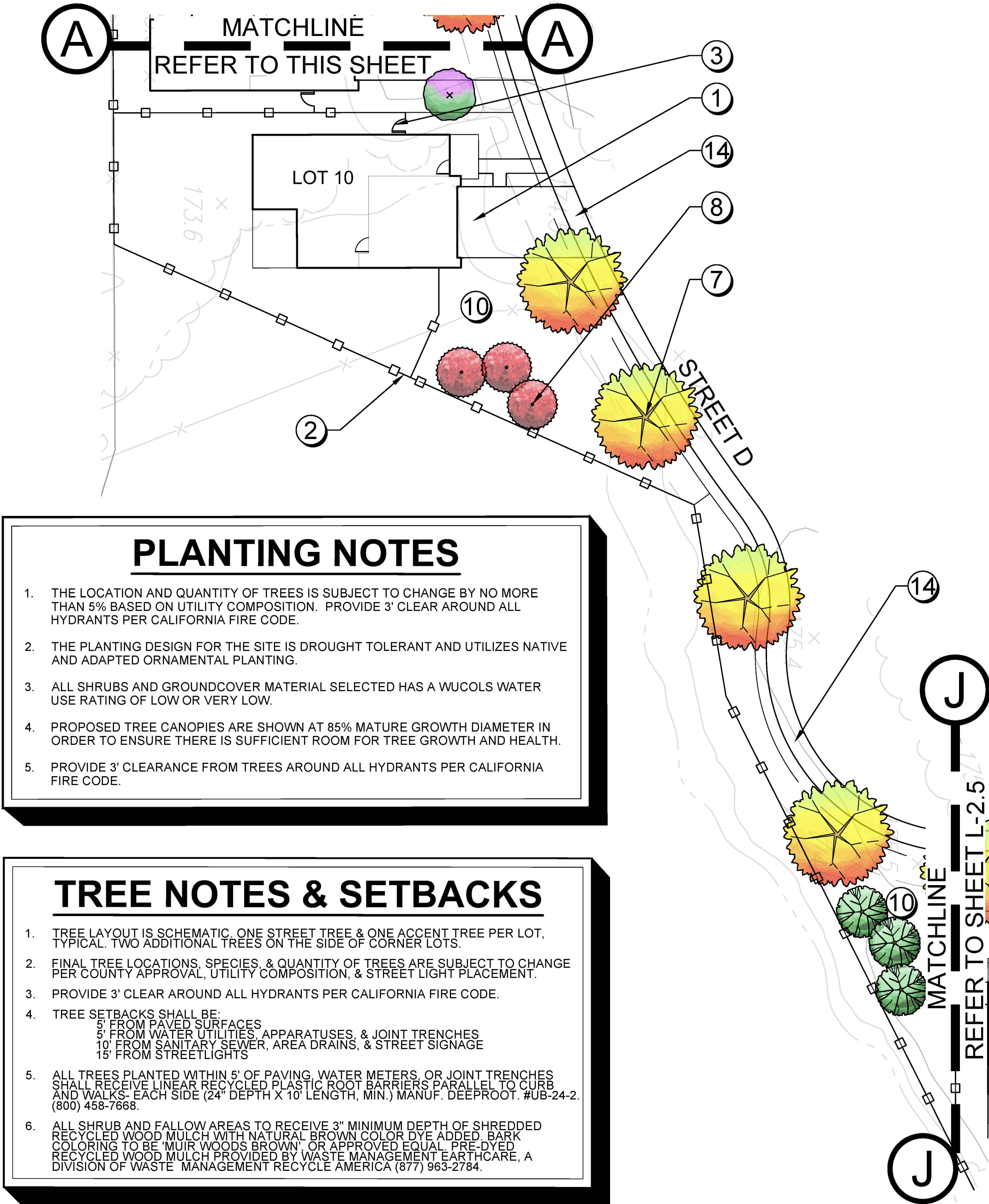
Government Procurement
BAA - Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA - Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/resources/buy-american for additional information.

Warranty
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

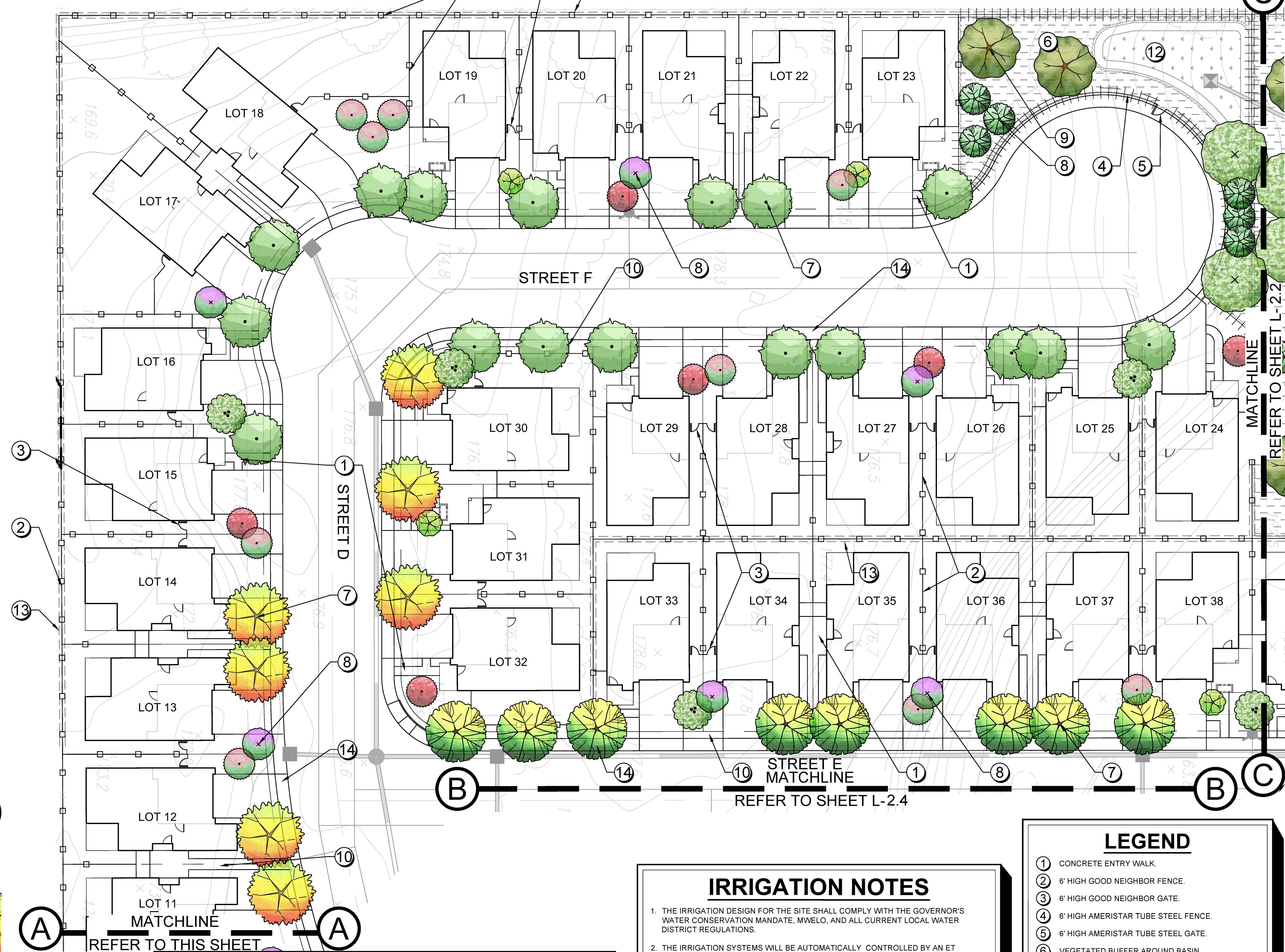
General Notes - Exterior
1. Readings shown are based on a total LLF of as shown at grade. Data references the extrapolated performance projections in a 25c ambient based on 10,000 hrs of LED testing (per IESNA LM-80-08 and projected per IESNA TM-21-11).
2. Please refer to the fixture labels for product type and mounting height.
3. Product information can be obtained at <https://www.acuitybrands.com/> or through your local agency.

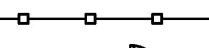
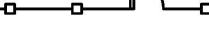
TREE LEGEND					
SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE	QTY.
STREET TREES					
	CELTIS AUSTRALIS	EUROPEAN HACKBERRY	24"BOX	LOW	45
	LAURUS N. 'SARATOGA'	SWEET BAY	24"BOX	LOW	56
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	LOW	28
	QUERCUS SUBER	CORK OAK	24"BOX	LOW	12
	TILIA TOMENTOSA	SILVER LINDEN	24"BOX	LOW	65
ACCENT TREES					
	AGONIS FLEXUOSA	PEPPERMINT TREE	15 GAL	LOW	40
	LAGERSTROEMIA I. 'WHIT II'	DYNAMITE® CRAPE MYRTLE	15 GAL	LOW	28
	LAGERSTROEMIA X 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	15 GAL	LOW	26
	LAGERSTROEMIA X 'NATCHEZ'	CRAPE MYRTLE	15 GAL	LOW	26
	METROSIDEROS EXCELSA	NEW ZEALAND CHRISTMAS TREE	15 GAL	LOW	32
	RHAPHIOLEPIS I. 'MAJESTIC BEAUTY'	STANDARD INDIAN HAWTHORNE	15 GAL	LOW	26
TOTAL TREES:		ALL TREES ARE STANDARD.			384



- ### PLANTING NOTES
- THE LOCATION AND QUANTITY OF TREES IS SUBJECT TO CHANGE BY NO MORE THAN 5% BASED ON UTILITY COMPOSITION. PROVIDE 3' CLEAR AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.
 - THE PLANTING DESIGN FOR THE SITE IS DROUGHT TOLERANT AND UTILIZES NATIVE AND ADAPTED ORNAMENTAL PLANTING.
 - ALL SHRUBS AND GROUND COVER MATERIAL SELECTED HAS A WUCOLS WATER USE RATING OF LOW OR VERY LOW.
 - PROPOSED TREE CANOPIES ARE SHOWN AT 85% MATURE GROWTH DIAMETER IN ORDER TO ENSURE THERE IS SUFFICIENT ROOM FOR TREE GROWTH AND HEALTH.
 - PROVIDE 3' CLEARANCE FROM TREES AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.

- ### TREE NOTES & SETBACKS
- TREE LAYOUT IS SCHEMATIC. ONE STREET TREE & ONE ACCENT TREE PER LOT. TYPICAL. TWO ADDITIONAL TREES ON THE SIDE OF CORNER LOTS.
 - FINAL TREE LOCATIONS, SPECIES, & QUANTITY OF TREES ARE SUBJECT TO CHANGE PER COUNTY APPROVAL, UTILITY COMPOSITION, & STREET LIGHT PLACEMENT.
 - PROVIDE 3' CLEAR AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.
 - TREE SETBACKS SHALL BE:
 - 5' FROM PAVED SURFACES
 - 5' FROM WATER UTILITIES, APPARATUSSES, & JOINT TRENCHES
 - 10' FROM SANITARY SEWER, AREA DRAINS, & STREET SIGNAGE
 - 15' FROM STREET LIGHTS
 - ALL TREES PLANTED WITHIN 5' OF PAVING, WATER METERS, OR JOINT TRENCHES SHALL RECEIVE LINEAR RECYCLED PLASTIC ROOT BARRIERS PARALLEL TO CURB AND WALKS- EACH SIDE (24" DEPTH X 10' LENGTH, MIN.) MANUF. DEEPROOT. #UB-24-2. (800) 458-7666.
 - ALL SHRUB AND FALLOW AREAS TO RECEIVE 3" MINIMUM DEPTH OF SHREDDED RECYCLED WOOD MULCH WITH NATURAL BROWN COLOR DYE ADDED. BARK COLORING TO BE 'MUIR WOODS BROWN', OR APPROVED EQUAL. PRE-DYED RECYCLED WOOD MULCH PROVIDED BY WASTE MANAGEMENT EARTHWARE, A DIVISION OF WASTE MANAGEMENT RECYCLE AMERICA (877) 963-2784.



FENCE LEGEND		
SYMBOL	FENCE TYPE	DETAIL REFERENCE
	6' HIGH GOOD NEIGHBOR FENCE, TYPICAL.	SEE DETAIL B, SHEET L-7.
	6' HIGH GOOD NEIGHBOR GATE, TYPICAL.	SEE DETAIL C, SHEET L-7.
	6' HIGH AMERISTAR TUBE STEEL FENCE, TYPICAL.	SEE DETAIL D, SHEET L-7.
	6' HIGH AMERISTAR TUBE STEEL GATE, TYPICAL.	SEE DETAIL E, SHEET L-7.
	6' HIGH AMERISTAR VEHICLE/ MAINTENANCE ACCESS GATE, TYPICAL.	SEE DETAIL G, SHEET L-7.
	RETAINING WALL LOCATION & HEIGHT PER CIVIL ENGINEER'S PLANS. (FOR FENCE ON RETAINING WALL ONLY SEE DETAIL)	SEE DETAIL F, SHEET L-7.

- ### IRRIGATION NOTES
- THE IRRIGATION DESIGN FOR THE SITE SHALL COMPLY WITH THE GOVERNOR'S WATER CONSERVATION MANDATE, MWEL, AND ALL CURRENT LOCAL WATER DISTRICT REGULATIONS.
 - THE IRRIGATION SYSTEMS WILL BE AUTOMATICALLY CONTROLLED BY AN ET IRRIGATION CONTROLLER CAPABLE OF MULTIPLE PROGRAMMING AND INDEPENDENT TIMING OF INDIVIDUAL IRRIGATION SYSTEMS. THE CONTROLLER WILL HAVE A 24-HOUR CLOCK TO ALLOW MULTIPLE START TIMES AND REPEAT CYCLES TO ADJUST FOR SOIL PERCOLATION RATES.
 - THE IRRIGATION SYSTEM WILL CONSIST OF LOW VOLUME, LOW FLOW BUBBLERS FOR TREES, AND POINT SOURCE DRIP IRRIGATION FOR SHRUBS AND GROUNDCOVERS.
 - PLANTS WILL BE GROUPED ONTO SEPARATE VALVES ACCORDING TO SUN EXPOSURE AND WATER USE TO ALLOW FOR IRRIGATION APPLICATION BY HYDROZONE. THE IRRIGATION SCHEDULING WILL REFLECT THE REGIONAL EVAPO-TRANSPIRATION RATES.
 - ALL AB1881 DOCUMENTATION INCLUDING IRRIGATION PLANS, WATER USE CALCULATIONS AND CERTIFICATES SHALL BE SUBMITTED WITH THE LANDSCAPE IMPROVEMENT PLANS FOR REVIEW AND APPROVAL.

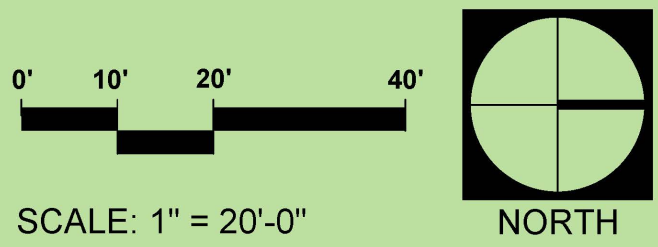
- ### LEGEND
- CONCRETE ENTRY WALK.
 - 6' HIGH GOOD NEIGHBOR FENCE.
 - 6' HIGH GOOD NEIGHBOR GATE.
 - 6' HIGH AMERISTAR TUBE STEEL FENCE.
 - 6' HIGH AMERISTAR TUBE STEEL GATE.
 - VEGETATED BUFFER AROUND BASIN.
 - STREET TREE, TYPICAL.
 - ACCENT TREE, TYPICAL.
 - BASIN TREES, TYPICAL.
 - PLANTING AREA, TYPICAL.
 - OMIT
 - BIORETENTION BASIN PER CIVIL ENGINEER'S PLANS.
 - RETAINING WALL LOCATION & HEIGHT PER CIVIL ENGINEER'S PLANS.
 - PUBLIC SIDEWALK PER CIVIL ENGINEER'S PLANS.

kb HOME
KB HOME NORTH BAY
4830 BUSINESS
CENTER DR., STE.50
FAIRFIELD, CA 94534
707-389-7517

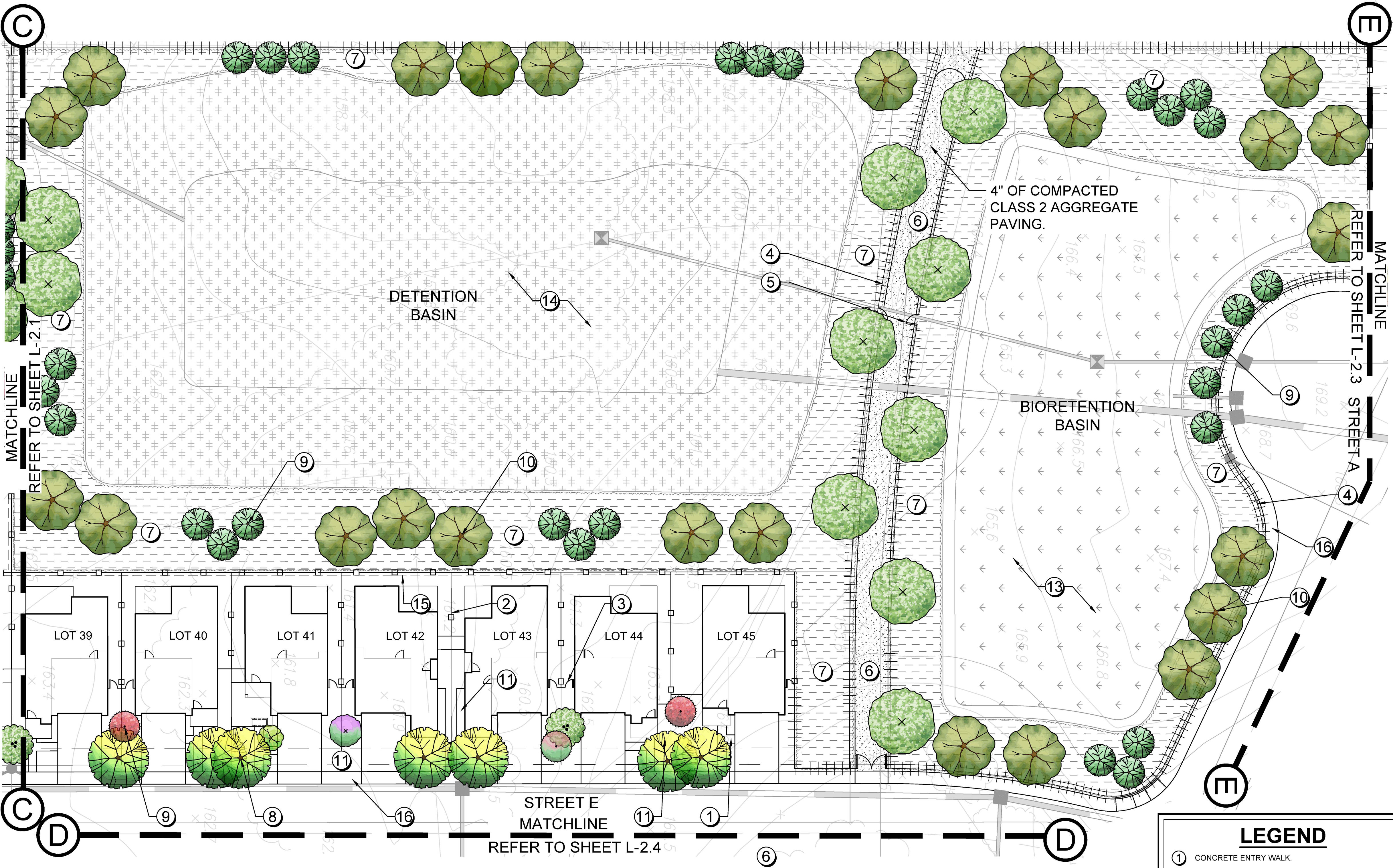
ROLLINGWOOD
VALLEJO, CALIFORNIA

SITE & FENCING PLAN
CONCEPTUAL LANDSCAPE PLAN
JUNE 4, 2024

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558
tel: 707.224.2299
www.vandertoolen.com



L-2.1
Project No. 05623



PROPOSED PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE
SHRUBS, GRASSES, & GROUNDCOVERS				
	AGAPANTHUS HYBRID SPECIES	LILY-OF-THE-NILE	L	5 GAL
	AGAVE SPECIES	AGAVE	L	1 GAL
	ANGIOZANTHOS SPECIES	KANGAROO PAW	L	5 GAL
	ARCTOSTAPHYLOS VARIETIES	MANZANITA	L	5 GAL
	BOUTELOUA GRACILIS VARIETIES	BLUE GRAMA GRASS	L	1 GAL
	BULBINE FRUTESCENS VARIETIES	BULBINE	L	1 GAL
	CALLISTEMON VIMINALIS VARIETIES	BOTTLEBRUSH	L	15 GAL
	CAREX SPECIES	SEDGE	L	1 GAL
	CELANOTHUS SPECIES	WILD LILAC	L	5 GAL
	COPROSMA K. 'VARIEGATA'	COPROSMA KIRKII VARIEGATA	L	1 GAL
	COTONEASTER SPECIES	BEARBERRY COTONEASTER	L	1 GAL
	CUPRESSUS SEMPERVIRENS VARIETIES	DWARF ITALIAN CYPRESS	L	15 GAL
	DIETES SPP.	PURPLE HORSEBED BUSH	L	1 GAL
	DODONAEA VISCOSEA 'PURPUREA'	WILD RYE GRASS	L	1 GAL
	ELYMUS CONDENSATUS VARIETIES	CALIFORNIA FUCHSIA	L	5 GAL
	EPILOBUM CALIFORNICA	FESCUE	L	1 GAL
	FESTUCA SPECIES	GREVILLEA	L	5 GAL
	GREVILLEA SPECIES	SUNROSE	L	1 GAL
	HELIANTHEMUM NUMMULARIUM	MEERLO LAVENDER	L	1 GAL
	LAVANDULA A. 'MEERLO'	DWARF MAT RUSH	L	5 GAL
	LOMANDEA LONGIFOLIA VARIETIES	FRINGE FLOWER	L	5 GAL
	LOROPETALUM CHINENSE VARIETIES	MAHONIA	L	1 GAL
	MAYONIA SPECIES	CREeping MYOPORUM	L	1 GAL
	MYOPORUM PARVIFOLIUM VARIETIES	HEAVENLY BAMBOO	L	5 GAL
	NANDINA DOMESTICA VARIETIES	DWARF OLIVE	L	1 GAL
	OLEA EUROPAEA VARIETIES	BEARDTONGUE	L	1 GAL
	PENSTEMON CHA CHA 'HOT PINK'	NEW ZEALAND FLAX	L	15 GAL
	PHORUM T. 'MACRO QUEEN'	PITTOSPORUM	L	5 GAL
	PITTOSPORUM TOBIRA SPECIES	ITALIAN BUCKTHORN	L	5 GAL
	RHAMNUS A. JOHN EDWARDS'	INDIA HAWTHORN	L	5 GAL
	RHAPHIOLEPIS INDICA VARIETIES	ROSEMARY	L	5 GAL
	ROSMARINUS SPECIES	FAN FLOWER	L	5 GAL
	SALVIA SPECIES	GERMANDER	L	1 GAL
	SCAEVOLOA MAUVE CLUSTERS'	COAST ROSEMARY	L	15 GAL
	TEUQUIUM SPECIES	COMPACT SHINY XYLOSMA	L	5 GAL
	WESTRINGIA SPECIES	ADAMS NEEDLE, YUCCA	L	5 GAL
	XYLOSMA C. 'COMPACTA'			
	YUCCA F. 'COLOR GUARD'			
BIORETENTION				
	PACIFIC COAST SEED, INC.	NATIVE ORNAMENTAL BIOSWALE MIX	L	HYDROSEED 23,861 SF
BIORETENTION BASIN - VEGETATED BUFFER				
	ALYOCYNE HUEGELII	BLUE HIBISCUS	L	5 GAL
	BACCHARIS PILULARIS VARIETIES	COYOTE BRUSH	L	5 GAL
	BOUTELOUA GRACILIS VARIETIES	BLUE GRAMA GRASS	L	1 GAL
	CAREX SPECIES	SERENGETY SEDGE	L	1 GAL
	CARPENTERIA CALIFORNICA	BUSH ANEMONE	L	5 GAL
	ELMUS TRITICOIDES	CREeping WILD RYE	L	1 GAL
	EPILOBUM CANUM	CALIFORNIA FUCHSIA	L	1 GAL
	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	L	1 GAL
	IRIS DOUGLASIANA	PURPLE DOUGLAS IRIS	L	1 GAL
	JUNCUS PATENS	CREeping WILD RYE	L	1 GAL
	LEWISIA T. 'GREY DAWN'	CALIFORNIA GRAY RUSH	L	1 GAL
	MIMULUS SPECIES	MONKEY FLOWER	L	1 GAL
	MULLENBERGIA RIGENS	DEER GRASS	L	1 GAL
	SCAEVOLOA MAUVE CLUSTERS'	FAN FLOWER	L	1 GAL
HYDROSEED (GRASSES & WILDFLOWER MIX)				
	ACHILLEA MILLEFOLIUM	NATIVE WHITE YARROW	L	HYDROSEED 84,161 SF
	CLARKIA PURPUREA	PURPLE CLARKIA	L	
	DESCAMPSIA C. 'HOLICORMS'	TUFFET HAIRGRASS	L	
	ERIOPHYLLUM CONFERTIFLORUM	GOLDEN YARROW	L	
	ESCHSCHOLIA C. 'MARTINA'	NATIVE POPPY	L	
	FESTUCA IDAHOENSIS	NATIVE IDAHOE FESCUE 'MT. TAM'	L	
	LYNCHIA CALIFORNICA	WESTERN FESCUE MOKELUMNE	L	
	LYNCHIA LEWISII	BLUE FLAX	L	
	LUPINUS NANUS	SKY LUPINE	L	
	PLAGIOCHETHYS NOTHOFLUVIS	POPCORN FLOWER	L	
	RANUNCULUS CALIFORNICUS	CALIFORNIA BUTTERCUP	L	
	SISYRINCHIUM BELLUM	BLUE-EYED GRASS	L	
* WATER NEEDS BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION.				

FENCE LEGEND

SYMBOL	FENCE TYPE	DETAIL REFERENCE
	6' HIGH GOOD NEIGHBOR FENCE, TYPICAL.	SEE DETAIL B, SHEET L-7.
	6' HIGH GOOD NEIGHBOR GATE, TYPICAL.	SEE DETAIL C, SHEET L-7.
	6' HIGH AMERISTAR TUBE STEEL FENCE, TYPICAL.	SEE DETAIL D, SHEET L-7.
	6' HIGH AMERISTAR TUBE STEEL GATE, TYPICAL.	SEE DETAIL E, SHEET L-7.
	6' HIGH AMERISTAR VEHICLE/ MAINTENANCE ACCESS GATE, TYPICAL.	SEE DETAIL G, SHEET L-7.
	RETAINING WALL LOCATION & HEIGHT PER CIVIL ENGINEER'S PLANS. (FOR FENCE ON RETAINING WALL ONLY SEE DETAIL)	SEE DETAIL F, SHEET L-7.

TREE LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE	QTY.
STREET TREES					
	CELTIS AUSTRALIS	EUROPEAN HACKBERRY	24"BOX	LOW	45
	LAURUS N. 'SARATOGA'	SWEET BAY	24"BOX	LOW	56
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	LOW	28
	QUERCUS SUBER	CORK OAK	24"BOX	LOW	12
	TILIA TOMENTOSA	SILVER LINDEN	24"BOX	LOW	65
ACCENT TREES					
	AGONIS FLEXUOSA	PEPPERMINT TREE	15 GAL	LOW	40
	LAGERSTROEMIA L. 'WHIT II'	DYNAMITE® CRAPE MYRTLE	15 GAL	LOW	28
	LAGERSTROEMIA X 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	15 GAL	LOW	26
	LAGERSTROEMIA X 'NATCHEZ'	CRAPE MYRTLE	15 GAL	LOW	26
	METROSIDEROS EXCELSA	NEW ZEALAND CHRISTMAS TREE	15 GAL	LOW	32
	RHAPHIOLEPIS L. 'MAJESTIC BEAUTY'	STANDARD INDIAN HAWTHORNE	15 GAL	LOW	26
TOTAL TREES:					384
					ALL TREES ARE STANDARD.

LEGEND

- 1 CONCRETE ENTRY WALK.
- 2 6' HIGH GOOD NEIGHBOR FENCE.
- 3 6' HIGH GOOD NEIGHBOR GATE.
- 4 6' HIGH AMERISTAR TUBE STEEL FENCE.
- 5 6' HIGH AMERISTAR TUBE STEEL GATE.
- 6 12' MAINTENANCE ACCESS AT BASIN.
- 7 VEGETATED BUFFER AROUND BASIN.
- 8 STREET TREE, TYPICAL.
- 9 ACCENT TREE, TYPICAL.
- 10 BASIN TREES, TYPICAL.
- 11 PLANTING AREA, TYPICAL.
- 12 OMIT.
- 13 BIORETENTION BASIN PER CIVIL ENGINEER'S PLANS.
- 14 DETENTION BASIN PER CIVIL ENGINEER'S PLANS.
- 15 RETAINING WALL LOCATION & HEIGHT PER CIVIL ENGINEER'S PLANS.
- 16 PUBLIC SIDEWALK PER CIVIL ENGINEER'S PLANS.

IRRIGATION NOTES

- THE IRRIGATION DESIGN FOR THE SITE SHALL COMPLY WITH THE GOVERNOR'S WATER CONSERVATION MANDATE, MWEL, AND ALL CURRENT LOCAL WATER DISTRICT REGULATIONS.
- THE IRRIGATION SYSTEMS WILL BE AUTOMATICALLY CONTROLLED BY AN ET IRRIGATION CONTROLLER CAPABLE OF MULTIPLE PROGRAMMING AND INDEPENDENT TIMING OF INDIVIDUAL IRRIGATION SYSTEMS. THE CONTROLLER WILL HAVE A 24-HOUR CLOCK TO ALLOW MULTIPLE START TIMES AND REPEAT CYCLES TO ADJUST FOR SOIL PERCOLATION RATES.
- THE IRRIGATION SYSTEM WILL CONSIST OF LOW VOLUME, LOW FLOW BUBBLERS FOR TREES, AND POINT SOURCE DRIP IRRIGATION FOR SHRUBS AND GROUNDCOVERS.
- PLANTS WILL BE GROUPED ONTO SEPARATE VALVES ACCORDING TO SUN EXPOSURE AND WATER USE TO ALLOW FOR IRRIGATION APPLICATION BY HYDROZONE. THE IRRIGATION SCHEDULING WILL REFLECT THE REGIONAL EVAPO-TRANSPIRATION RATES.
- ALL AB1881 DOCUMENTATION INCLUDING IRRIGATION PLANS, WATER USE CALCULATIONS AND CERTIFICATES SHALL BE SUBMITTED WITH THE LANDSCAPE IMPROVEMENT PLANS FOR REVIEW AND APPROVAL.

TREE NOTES & SETBACKS

- TREE LAYOUT IS SCHEMATIC, ONE STREET TREE & ONE ACCENT TREE PER LOT, TYPICAL. TWO ADDITIONAL TREES ON THE SIDE OF CORNER LOTS.
- FINAL TREE LOCATIONS, SPECIES, & QUANTITY OF TREES ARE SUBJECT TO CHANGE PER COUNTY APPROVAL, UTILITY COMPOSITION, & STREET LIGHT PLACEMENT.
- PROVIDE 3' CLEAR AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.
- TREE SETBACKS SHALL BE:
 - 5' FROM PAVED SURFACES
 - 5' FROM WATER UTILITIES, APPARATUSSES, & JOINT TRENCHES
 - 15' FROM SANITARY SEWER, AREA DRAINS, & STREET SIGNAGE
- ALL TREES PLANTED WITHIN 5' OF PAVING, WATER METERS, OR JOINT TRENCHES SHALL RECEIVE LINEAR RECYCLED PLASTIC ROOT BARRIERS PARALLEL TO CURB AND WALKS, EACH SIDE (24" DEPTH X 10' LENGTH, MIN.) MANUF. DEEPROOT. #UB-24-2. (800) 458-7866.
- ALL SHRUB AND FALLOW AREAS TO RECEIVE 3" MINIMUM DEPTH OF SHREDDED RECYCLED WOOD MULCH WITH NATURAL BROWN COLOR DYE ADDED. BARK COLORING TO BE 'MUIR WOODS BROWN' OR APPROVED EQUAL. PRE-DYED RECYCLED WOOD MULCH PROVIDED BY WASTE MANAGEMENT EARTHWARE, A DIVISION OF WASTE MANAGEMENT RECYCLE AMERICA (877) 963-2784.

PLANTING NOTES

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- THE PLANTING DESIGN FOR THE SITE IS DROUGHT TOLERANT AND UTILIZES NATIVE AND ADAPTED ORNAMENTAL PLANTING.
- ALL SHRUBS AND GROUNDCOVER MATERIAL SELECTED HAS A WUCOLS WATER USE RATING OF LOW OR VERY LOW.
- PROPOSED TREE CANOPIES ARE SHOWN AT 85% MATURE GROWTH DIAMETER IN ORDER TO ENSURE THERE IS SUFFICIENT ROOM FOR TREE GROWTH AND HEALTH.
- PROVIDE 3' CLEARANCE FROM TREES AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.

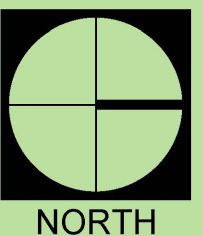
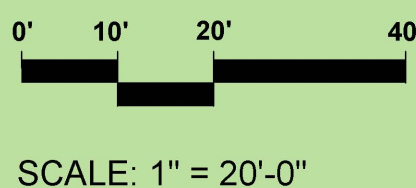


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707-389-7517

ROLLINGWOOD
VALLEJO, CALIFORNIA

SITE & FENCING PLAN
CONCEPTUAL LANDSCAPE PLAN
JUNE 4, 2024

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558
tel: 707.224.2299
www.vandertoolen.com



L-2.2
Project No. 05623

TREE NOTES & SETBACKS

- 1. TREE LAYOUT IS SCHEMATIC. ONE STREET TREE & ONE ACCENT TREE PER LOT, TYPICAL. TWO ADDITIONAL TREES ON THE SIDE OF CORNER LOTS.
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 - 10' FROM SANITARY SEWER, AREA DRAINS, & STREET SIGNAGE
 - 15' FROM STREET LIGHTS
- 5. ALL TREES PLANTED WITHIN 5' OF PAVING, WATER METERS, OR JOINT TRENCHES SHALL RECEIVE LINEAR RECYCLED PLASTIC ROOT BARRIERS PARALLEL TO CURB AND WALKS, EACH SIDE (24" DEPTH X 10' LENGTH, MIN.) MANUF. DEEPROOT, #UB-24-2 (800) 438-7866
- 6. ALL SHRUB AND FALLOW AREAS TO RECEIVE 3" MINIMUM DEPTH OF SHREDDED RECYCLED WOOD MULCH WITH NATURAL BROWN COLOR DYE ADDED. BARK COLORING TO BE "MUIR WOODS BROWN" OR APPROVED EQUAL. PRE-DYED RECYCLED WOOD MULCH PROVIDED BY WASTE MANAGEMENT. EARTHORE, A DIVISION OF WASTE MANAGEMENT RECYCLE AMERICA (877) 963-2784.

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- 2. THE PLANTING DESIGN FOR THE SITE IS DROUGHT TOLERANT AND UTILIZES NATIVE AND ADAPTED ORNAMENTAL PLANTING.
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- 4. PROPOSED TREE CANOPIES ARE SHOWN AT 85% MATURE GROWTH DIAMETER IN ORDER TO ENSURE THERE IS SUFFICIENT ROOM FOR TREE GROWTH AND HEALTH.
- 5. PROVIDE 3' CLEARANCE FROM TREES AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.

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LEGEND

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- ② 6' HIGH GOOD NEIGHBOR FENCE.
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- ④ STREET TREE, TYPICAL.
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- ⑦ OMIT.
- ⑧ RETAINING WALL LOCATION & HEIGHT PER CIVIL ENGINEER'S PLANS.
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FENCE LEGEND

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TOTAL TREES:		ALL TREES ARE STANDARD.			384



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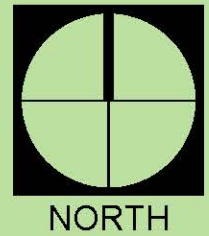
ROLLINGWOOD
VALLEJO, CALIFORNIA

SITE & FENCING PLAN
CONCEPTUAL LANDSCAPE PLAN
JUNE 4, 2024

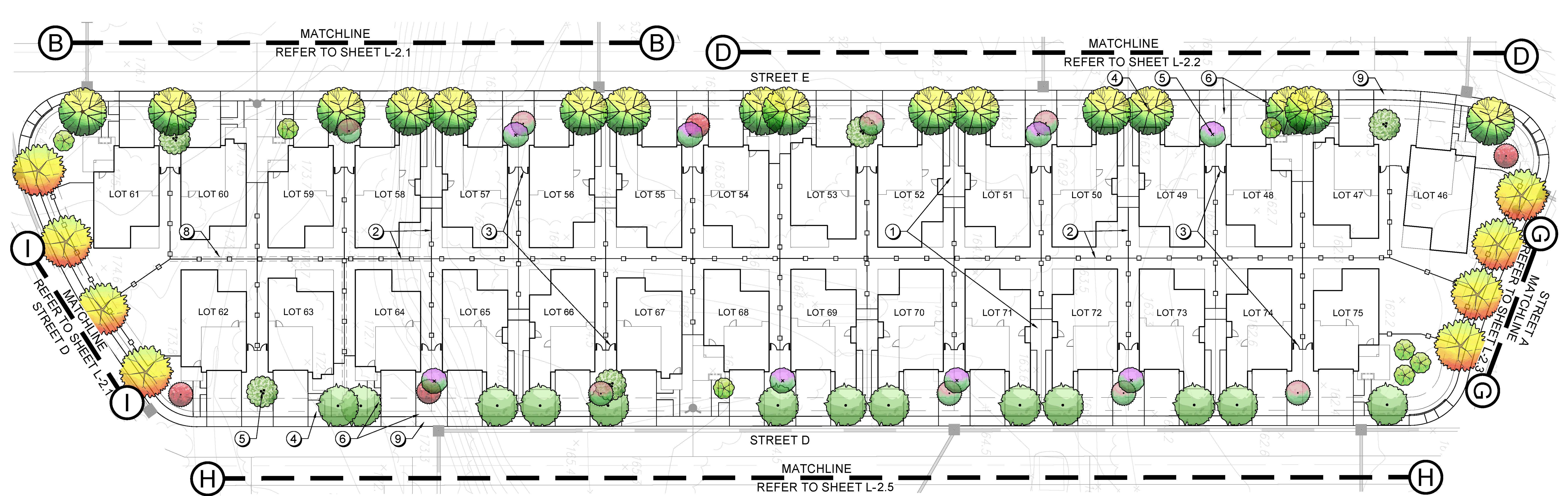
vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558
tel: 707.224.2299
www.vandertoolen.com



0' 10' 20' 40'
SCALE: 1" = 20'-0"



L-2.3
Project No. 05623



FENCE LEGEND		
SYMBOL	FENCE TYPE	DETAIL REFERENCE
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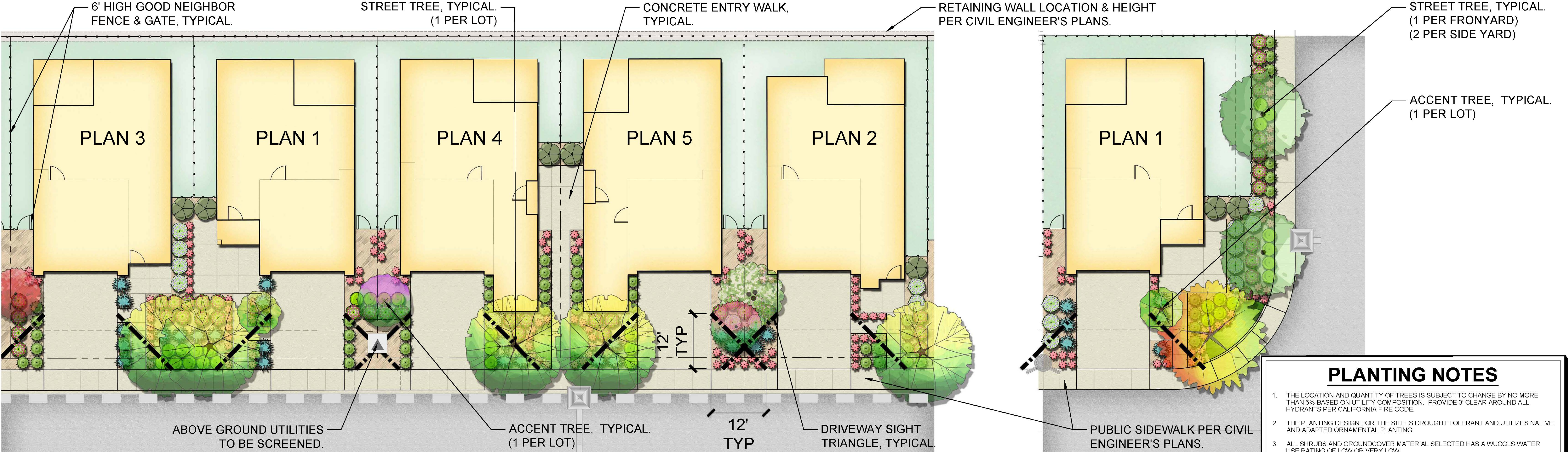


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TOTALS					377
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PLANTING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE
LARGE SHRUBS				
	CUPRESSUS S. VARIETIES	DWARF ITALIAN CYPRESS	L	15 GAL
	DODONEA V. 'PURPUREA'	PURPLE HOPSEED BUSH	L	15 GAL
	PITTOSPORUM SPECIES	MOCK ORANGE	L	15 GAL
	PODOCARPUS M. 'MAKI'	YEW PINE	L	15 GAL
	ROSMARINUS SPECIES	ROSEMARY	L	15 GAL
	XYLOSMA C. 'COMPACTA'	SHINY XYLOSMA	L	15 GAL
	ARCTOSTAPHYLOS D. 'HOWARD MCMINN'	HOWARD MCMINN MANZANITA	L	5 GAL
	ANIGOSANTHOS SPECIES	KANGAROO PAW	L	5 GAL
	CALLISTEMON VIMINALIS VARIETIES	BOTTLEBRUSH	L	5 GAL
	GREVILLEA 'NOELLI'	GREVILLEA	L	5 GAL
	LOROPETALUM C. 'PURPLE DIAMOND'	FRINGE FLOWER	L	5 GAL
	MAHONIA SPECIES	MAHONIA SPECIES	L	5 GAL
	NANDINA D. 'LEMON LIME'	LEMON LIME NANDINA	L	5 GAL
	OLEA EUROPAEA VARIETIES	DWARF OLIVE	L	5 GAL
	PHORMIUM T. 'MAORI QUEEN'	NEW ZEALAND FLAX	L	5 GAL
	RHAPHIOLEPIS I. 'CLARA'	CLARA INDIA HAWTHORN	L	5 GAL
	SALVIA LEUCANTHA	MEXICAN BUSH SAGE	L	5 GAL
	TEUCRIUM SPECIES	GERMANDER	L	5 GAL
	WESTRINGIA SPECIES	COAST ROSEMARY	L	5 GAL
SMALL SHRUBS				
	AGAPATHUS HYBRID 'TINKERBELL'	AGAPANTHUS	L	1 GAL
	AGAVE SPECIES	AGAVE SPECIES	L	1 GAL
	BULBINE F. 'TINY TANGERINE'	BULBINE	L	1 GAL
	CEANOETHUS MARITIMUS 'VALLEY VIOLET'	MARITIME CEANOETHUS	L	1 GAL
	DIERIS BICOLOR	FORTNIGHT LILY	L	1 GAL
	EPILOBIUM CALIFORNICA	CALIFORNIA FUCHSIA	L	1 GAL
	LAVANDULA A. 'MEERLO'	MEERLO LAVENDER	L	1 GAL
	NANDINA D. 'NANA PURPUREA'	DWARF HEAVENLY BAMBOO	L	1 GAL
	PENSTEMON C. 'HOT PINK'	BEARD TONGUE	L	1 GAL
	SALVIA G. 'RED'	SAGE	L	1 GAL
	YUCCA F. 'COLOR GUARD'	ADAM'S NEEDLE, YUCCA	L	1 GAL
GRASSES				
	BOUTELLOUA G. 'BLONDE AMBITION'	BLUE GRAMA GRASS	L	1 GAL
	CAREX SPECIES	SEDGE	L	1 GAL
	FESTUCA MAIREI	ATLAS FESCUE	L	1 GAL
	LEYMUS C. 'CANYON PRINCE'	BLUE WILD RYE	L	1 GAL
	LOMANDRA LONGIFOLIA VARIETIES	DWARF MAT RUSH	L	1 GAL
GROUNDCOVERS				
	COPROSMA K. 'VARIEGATA'	COPROSMA KIRKII VARIEGATA	L	1 GAL
	COTONEASTER SPECIES	BEARBERRY	L	1 GAL
	HELIANTHEMUM N. 'YELLOW'	SUNROSE	L	1 GAL
	MYOPORUM P. VARIETIES	CREEPING MYOPORUM	L	1 GAL
	ROSMARINUS O. 'HUNTINGTON CARPET'	HUNTINGTON CARPET ROSEMARY	L	1 GAL
	SCAEVOLA A. 'MAUVE CLUSTERS'	FAN FLOWER	L	1 GAL

TREE LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE	QTY.
STREET TREES					
	CELTIS AUSTRALIS	EUROPEAN HACKBERRY	24"BOX	LOW	48
	LAURUS N. 'SARATOGA'	SWEET BAY	24"BOX	LOW	54
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	LOW	27
	QUERCUS SUBER	CORK OAK	24"BOX	LOW	12
	TILIA TOMENTOSA	SILVER LINDEN	24"BOX	LOW	64
ACCENT TREES					
	AGONIS FLEXUOSA	PEPPERMINT TREE	15 GAL	LOW	36
	LAGERSTROEMIA I. 'WHIT II'	DYNAMITE® GRAPE MYRTLE	15 GAL	LOW	27
	LAGERSTROEMIA X 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	15 GAL	LOW	26
	LAGERSTROEMIA X 'NATCHEZ'	CRAPE MYRTLE	15 GAL	LOW	26
	METROSIDEROS EXCELSA	NEW ZEALAND CHRISTMAS TREE	15 GAL	LOW	31
	RHAPHIOLEPIS I. 'MAJESTIC BEAUTY'	STANDARD INDIAN HAWTHORNE	15 GAL	LOW	26
TOTAL TREES:			ALL TREES ARE STANDARD. 377		

PLANTING NOTES

1. THE LOCATION AND QUANTITY OF TREES IS SUBJECT TO CHANGE BY NO MORE THAN 5% BASED ON UTILITY COMPOSITION. PROVIDE 3' CLEAR AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.
2. THE PLANTING DESIGN FOR THE SITE IS DROUGHT TOLERANT AND UTILIZES NATIVE AND ADAPTED ORNAMENTAL PLANTING.
3. ALL SHRUBS AND GROUNDCOVER MATERIAL SELECTED HAS A WUCOLS WATER USE RATING OF LOW OR VERY LOW.
4. PROPOSED TREE CANOPIES ARE SHOWN AT 85% MATURE GROWTH DIAMETER IN ORDER TO ENSURE THERE IS SUFFICIENT ROOM FOR TREE GROWTH AND HEALTH.
5. PROVIDE 3' CLEARANCE FROM TREES AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.

IRRIGATION NOTES

1. THE IRRIGATION DESIGN FOR THE SITE SHALL COMPLY WITH THE GOVERNOR'S WATER CONSERVATION MANDATE, MWELQ, AND ALL CURRENT LOCAL WATER DISTRICT REGULATIONS.
2. THE IRRIGATION SYSTEMS WILL BE AUTOMATICALLY CONTROLLED BY AN ET IRRIGATION CONTROLLER CAPABLE OF MULTIPLE PROGRAMMING AND INDEPENDENT TIMING OF INDIVIDUAL IRRIGATION SYSTEMS. THE CONTROLLER WILL HAVE A 24-HOUR CLOCK TO ALLOW MULTIPLE START TIMES AND REPEAT CYCLES TO ADJUST FOR SOIL PERCOLATION RATES.
3. THE IRRIGATION SYSTEM WILL CONSIST OF LOW VOLUME, LOW FLOW BUBBLERS FOR TREES, AND POINT SOURCE DRIP IRRIGATION FOR SHRUBS AND GROUNDCOVERS.
4. PLANTS WILL BE GROUPED ONTO SEPARATE VALVES ACCORDING TO SUN EXPOSURE AND WATER USE TO ALLOW FOR IRRIGATION APPLICATION BY HYDROZONE. THE IRRIGATION SCHEDULING WILL REFLECT THE REGIONAL EVAPOTRANSPIRATION RATES.
5. ALL AB1881 DOCUMENTATION INCLUDING IRRIGATION PLANS, WATER USE CALCULATIONS AND CERTIFICATES SHALL BE SUBMITTED WITH THE LANDSCAPE IMPROVEMENT PLANS FOR REVIEW AND APPROVAL.

TREE NOTES & SETBACKS

1. TREE LAYOUT IS SCHEMATIC. ONE STREET TREE & ONE ACCENT TREE PER LOT, TYPICAL. TWO ADDITIONAL TREES ON THE SIDE OF CORNER LOTS.
2. FINAL TREE LOCATIONS, SPECIES, & QUANTITY OF TREES ARE SUBJECT TO CHANGE PER COUNTY APPROVAL, UTILITY COMPOSITION, & STREET LIGHT PLACEMENT.
3. PROVIDE 3' CLEAR AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.
4. TREE SETBACKS SHALL BE:
5' FROM PAVED SURFACES
5' FROM WATER UTILITIES, APPARATUSES, & JOINT TRENCHES
10' FROM SANITARY SEWER, AREA DRAINS, & STREET SIGNAGE
15' FROM STREET LIGHTS
5. ALL TREES PLANTED WITHIN 5' OF PAVING, WATER METERS, OR JOINT TRENCHES SHALL RECEIVE LINEAR RECYCLED PLASTIC ROOT BARRIERS PARALLEL TO CURB AND WALKS, EACH SIDE (24" DEPTH X 10' LENGTH, MIN.) MANUF. DEEPROOT. #UB-24-2 (800) 458-7666.
6. ALL SHRUB AND FALLOW AREAS TO RECEIVE 3" MINIMUM DEPTH OF SHREDDED RECYCLED WOOD MULCH WITH NATURAL BROWN COLOR DYE ADDED. BARK COLORING TO BE MUIR WOODS BROWN, OR APPROVED EQUAL. PRE-DYED RECYCLED WOOD MULCH PROVIDED BY WASTE MANAGEMENT PARTHICARE, A DIVISION OF WASTE MANAGEMENT RECYCLE AMERICA (817) 965-2784.

KB HOME NORTH BAY
4830 BUSINESS
CENTER DR., STE.50
FAIRFIELD, CA 94534
707-389-7517

ROLLINGWOOD
VALLEJO, CALIFORNIA

TYPICAL LOTS
CONCEPTUAL LANDSCAPE PLAN
JUNE 4, 2024

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558
tel: 707.224.2299
www.vandertoolen.com

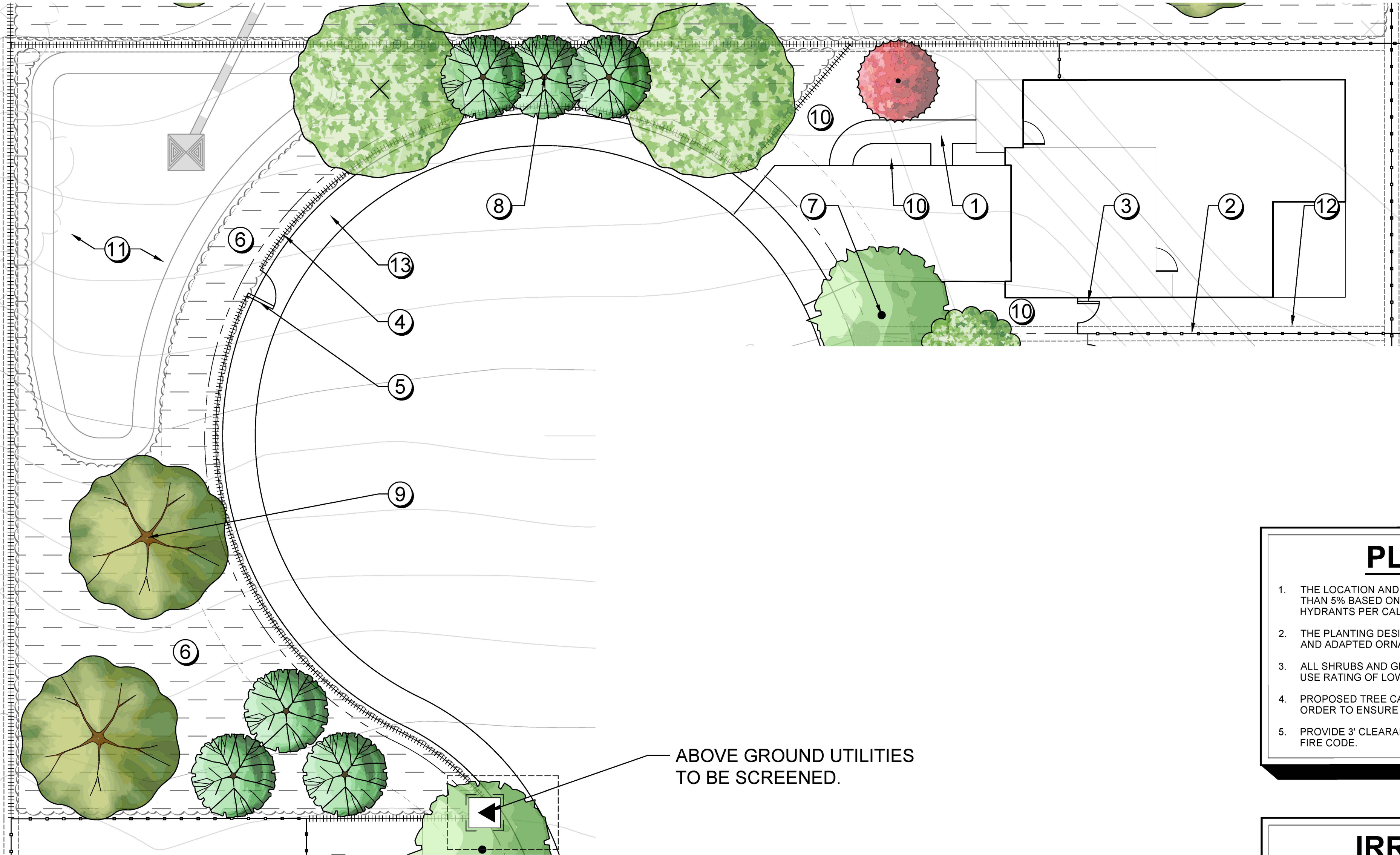
0' 5' 10' 20'

SCALE: 1" = 10'-0"

NORTH

L-3

Project No. 05623



ABOVE GROUND UTILITIES
TO BE SCREENED.

LEGEND

- 1 CONCRETE ENTRY WALK.
- 2 6' HIGH GOOD NEIGHBOR FENCE.
- 3 6' HIGH GOOD NEIGHBOR GATE.
- 4 6' HIGH AMERISTAR TUBE STEEL FENCE.
- 5 6' HIGH AMERISTAR TUBE STEEL GATE.
- 6 VEGETATED BUFFER AROUND BASIN.
- 7 STREET TREE, TYPICAL.
- 8 ACCENT TREE, TYPICAL.
- 9 BASIN TREES, TYPICAL.
- 10 PLANTING AREA, TYPICAL.
- 11 BIORETENTION BASIN PER CIVIL ENGINEER'S PLANS.
- 12 RETAINING WALL LOCATION & HEIGHT PER CIVIL ENGINEER'S PLANS.
- 13 PUBLIC SIDEWALK PER CIVIL ENGINEER'S PLANS.

PLANTING NOTES

1. THE LOCATION AND QUANTITY OF TREES IS SUBJECT TO CHANGE BY NO MORE THAN 5% BASED ON UTILITY COMPOSITION. PROVIDE 3' CLEAR AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.
2. THE PLANTING DESIGN FOR THE SITE IS DROUGHT TOLERANT AND UTILIZES NATIVE AND ADAPTED ORNAMENTAL PLANTING.
3. ALL SHRUBS AND GROUNDCOVER MATERIAL SELECTED HAS A WUCOLS WATER USE RATING OF LOW OR VERY LOW.
4. PROPOSED TREE CANOPIES ARE SHOWN AT 85% MATURE GROWTH DIAMETER IN ORDER TO ENSURE THERE IS SUFFICIENT ROOM FOR TREE GROWTH AND HEALTH.
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IRRIGATION NOTES

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TREE NOTES & SETBACKS

1. TREE LAYOUT IS SCHEMATIC, ONE STREET TREE & ONE ACCENT TREE PER LOT, TYPICAL. TWO ADDITIONAL TREES ON THE SIDE OF CORNER LOTS.
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3. PROVIDE 3' CLEAR AROUND ALL HYDRANTS PER CALIFORNIA FIRE CODE.
4. TREE SETBACKS SHALL BE:
 - 5' FROM PAVED SURFACES
 - 5' FROM WATER UTILITIES, APPARATUSES, & JOINT TRENCHES
 - 10' FROM WATER UTILITY, AREA DRAINS, & STREET SIGNAGE
 - 15' FROM STREET LIGHTS
5. ALL TREES PLANTED WITHIN 5' OF PAVING, WATER METERS, OR JOINT TRENCHES SHALL RECEIVE LINEAR RECYCLED PLASTIC ROOT BARRIERS PARALLEL TO CURB AND WALKS, EACH SIDE (24" DEPTH X 10' LENGTH, MIN.) MANUF. DEEPROOT, #UB-24-2, (800) 458-7668.
6. ALL SHRUB AND FALLOW AREAS TO RECEIVE 3" MINIMUM DEPTH OF SHREDDED RECYCLED WOOD MULCH WITH NATURAL BROWN COLOR DYE ADDED. BARK COLORING TO BE MUIR WOODS BROWN, OR APPROVED EQUAL. PRE-DYED RECYCLED WOOD MULCH PROVIDED BY WASTE MANAGEMENT EARTH CARE, A DIVISION OF WASTE MANAGEMENT RECYCLE AMERICA (877) 963-2784.

PROPOSED PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE
SHRUBS, GRASSES, & GROUNDCOVERS				
	AGAPANTHUS HYBRID SPECIES	LILY-OF-THE-NILE	L	5 GAL
	AGAVE SPECIES	AGAVE	L	1 GAL
	ANIGOZANTHOS SPECIES	KANGAROO PAW	L	5 GAL
	ARCTOSTAPHYLOS VARIETIES	MANZANITA	L	5 GAL
	BOUTELOUA GRACILIS VARIETIES	BLUE GRAMA GRASS	L	1 GAL
	BULBINE FRUTESCENS VARIETIES	BULBINE	L	1 GAL
	CALLISTEMON VIMINALIS VARIETIES	BOTTLEBRUSH	L	5 GAL
	CAREX SPECIES	SEDGE	L	1 GAL
	CEANOTHUS SPECIES	WILD LILAC	L	5 GAL
	COPROSMA K. 'VARIEGATA'	COPROSMA KIRKII VARIEGATA	L	1 GAL
	COTONEASTER SPECIES	BEARBERRY COTONEASTER	L	1 GAL
	CUPRESSUS SEMPERVIRENS VARIETIES	DWARF ITALIAN CYPRESS	L	15 GAL
	DIETES SPP	FORTNIGHT LILY	L	1 GAL
	DODONEA VISCOSA 'PURPUREA'	PURPLE HOPSEED BUSH	L	15 GAL
	ELYMUS CONDENSATUS VARIETIES	WILD RYE GRASS	L	1 GAL
	EPILOBIUM CALIFORNICA	CALIFORNIA FUCHSIA	L	5 GAL
	FESTUCA SPECIES	FESCUE	L	1 GAL
	GREVILLEA SPECIES	GREVILLEA	L	5 GAL
	HELIANTHEMUM NUMMULARIUM	SUNROSE	L	1 GAL
	LAVANDULA A. 'MEERLO'	MEERLO LAVENDER	L	1 GAL
	LOMANDRA LONGIFOLIA VARIETIES	DWARF MAT RUSH	L	1 GAL
	LOROPETALUM CHINENSE VARIETIES	FRINGE FLOWER	L	5 GAL
	MAHONIA SPECIES	MAHONIA	L	5 GAL
	MYOPORUM PARVIFOLIUM VARIETIES	CREeping MYOPORUM	L	1 GAL
	NANDINA DOMESTICA VARIETIES	HEAVENLY BAMBOO	L	1 GAL
	OLEA EUROPAEA VARIETIES	DWARF OLIVE	L	5 GAL
	PENSTEMON OHA CHA 'HOT PINK'	BEARDTONGUE	L	1 GAL
	PHORMIUM T. 'MAORI QUEEN'	NEW ZEALAND FLAX	L	1 GAL
	PITTOSPORUM TOBIRA SPECIES	PITTOSPORUM	L	15 GAL
	RHAMNUS A. 'JOHN EDWARDS'	ITALIAN BUCKTHORN	L	15 GAL
	RHAPHIOLEPIS INDICA VARIETIES	INDIA HAWTHORN	L	5 GAL
	ROSMARINUS SPECIES	ROSEMARY	L	5 GAL
	SALVIA SPECIES	SAGE	L	5 GAL
	SCAEVOLA 'MAUVE CLUSTERS'	FAN FLOWER	L	1 GAL
	TEUCRIUM SPECIES	GERMANDER	L	1 GAL
	WESTRINGIA SPECIES	COAST ROSEMARY	L	5 GAL
	XYLOSMA C. 'COMPACTA'	COMPACT SHINY XYLOSMA	L	15 GAL
	YUCCA F. 'COLOR GUARD'	ADAM'S NEEDLE, YUCCA	L	5 GAL

BIORETENTION

PACIFIC COAST SEED, INC.	NATIVE ORNAMENTAL BIOSWALE MIX	L	HYDROSEED
			23,861 SF

BIORETENTION BASIN - VEGETATED BUFFER

ALYOGYNE HUEGELII	BLUE HIBISCUS	L	5 GAL
BACCHARIS PILULARIS VARIETIES	COYOTE BRUSH	L	5 GAL
BOUTELOUA GRACILIS VARIETIES	BLUE GRAMA GRASS	L	1 GAL
CAREX DIVULSA	BERKELEY SEDGE	L	1 GAL
CARPENTERIA CALIFORNICA	BUSH ANEMONE	L	5 GAL
ELYMUS TRITICOIDES	CREeping WILD RYE	L	1 GAL
EPILOBIUM CANUM	CALIFORNIA FUCHSIA	L	1 GAL
FESTUCA CALIFORNICA	CALIFORNIA FESCUE	L	1 GAL
IRIS DOUGLASIANA	PURPLE DOUGLAS IRIS	L	1 GAL
JUNCUS PATENS	CREeping WILD RYE	L	1 GAL
LEYMUS T. 'GREY DAWN'	CALIFORNIA GRAY RUSH	L	1 GAL
MIMULUS SPECIES	MONKEY FLOWER	L	1 GAL
MUHLENBERGIA RIGENS	DEER GRASS	L	1 GAL
SCAEVOLA 'MAUVE CLUSTERS'	FAN FLOWER	L	1 GAL

HYDROSEED (GRASSES & WILDFLOWER MIX)

ACHILLEA MILLEFOLIUM	NATIVE WHITE YARROW	L	HYDROSEED
CLARKIA PURPUREA	PURPLE CLARKIA	L	84,161 SF
DESCHAMPSIA C. 'HOLIFORMS'	TUFTED HAIRGRASS	L	
ERIOPHYLLUM CONFERTIFLORUM	GOLDEN YARROW	L	
ESCHSCHOLZIA C. 'MARTIMA'	NATIVE POPPY	L	
FESTUCA IDAHOENSIS	NATIVE IDAHOE FESCUE 'MT. TAM'	L	
FESTUCA OCCIDENTALIS	WESTERN FESCUE MOKELUMNE	L	
LINUM LEWISII	BLUE FLAX	L	
LUPINUS NANUS	SKY LUPINE	L	
PLAGIOBOTHRYUS NOTHOFULVUS	POPCORN FLOWER	L	
RANUNCULUS CALIFORNICUS	CALIFORNIA BUTTERCUP	L	
SISYRINCHIUM BELLUM	BLUE-EYED GRASS	L	

* WATER NEEDS BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION.

TREE LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE	QTY.
STREET TREES					
	CELTIS AUSTRALIS	EUROPEAN HACKBERRY	24"BOX	LOW	48
	LAURUS N. 'SARATOGA'	SWEET BAY	24"BOX	LOW	54
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	LOW	27
	QUERCUS SUBER	CORK OAK	24"BOX	LOW	12
	TILIA TOMENTOSA	SILVER LINDEN	24"BOX	LOW	64
ACCENT TREES					
	AGONIS FLEXUOSA	PEPPERMINT TREE	15 GAL	LOW	36
	LAGERSTROEMIA L. 'WHIT II'	DYNAMITE® CRAPE MYRTLE	15 GAL	LOW	27
	LAGERSTROEMIA X 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	15 GAL	LOW	26
	LAGERSTROEMIA X 'NATCHEZ'	CRAPE MYRTLE	15 GAL	LOW	26
	METROSIDEROS EXCELSA	NEW ZEALAND CHRISTMAS TREE	15 GAL	LOW	31
	RHAPHIOLEPIS L. 'MAJESTIC BEAUTY'	STANDARD INDIAN HAWTHORNE	15 GAL	LOW	26
TOTAL TREES:		ALL TREES ARE STANDARD.			377

kb
HOME

KB HOME NORTH BAY
4830 BUSINESS
CENTER DR., STE. 50
FAIRFIELD, CA 94534
707-389-7517

ROLLINGWOOD
VALLEJO, CALIFORNIA

BIORETENTION BASIN & ATYPICAL LOT AT CUL-DE-SAC
CONCEPTUAL LANDSCAPE PLAN
JUNE 4, 2024

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558
tel: 707.224.2299
www.vandertoolen.com



0' 5' 10' 20'

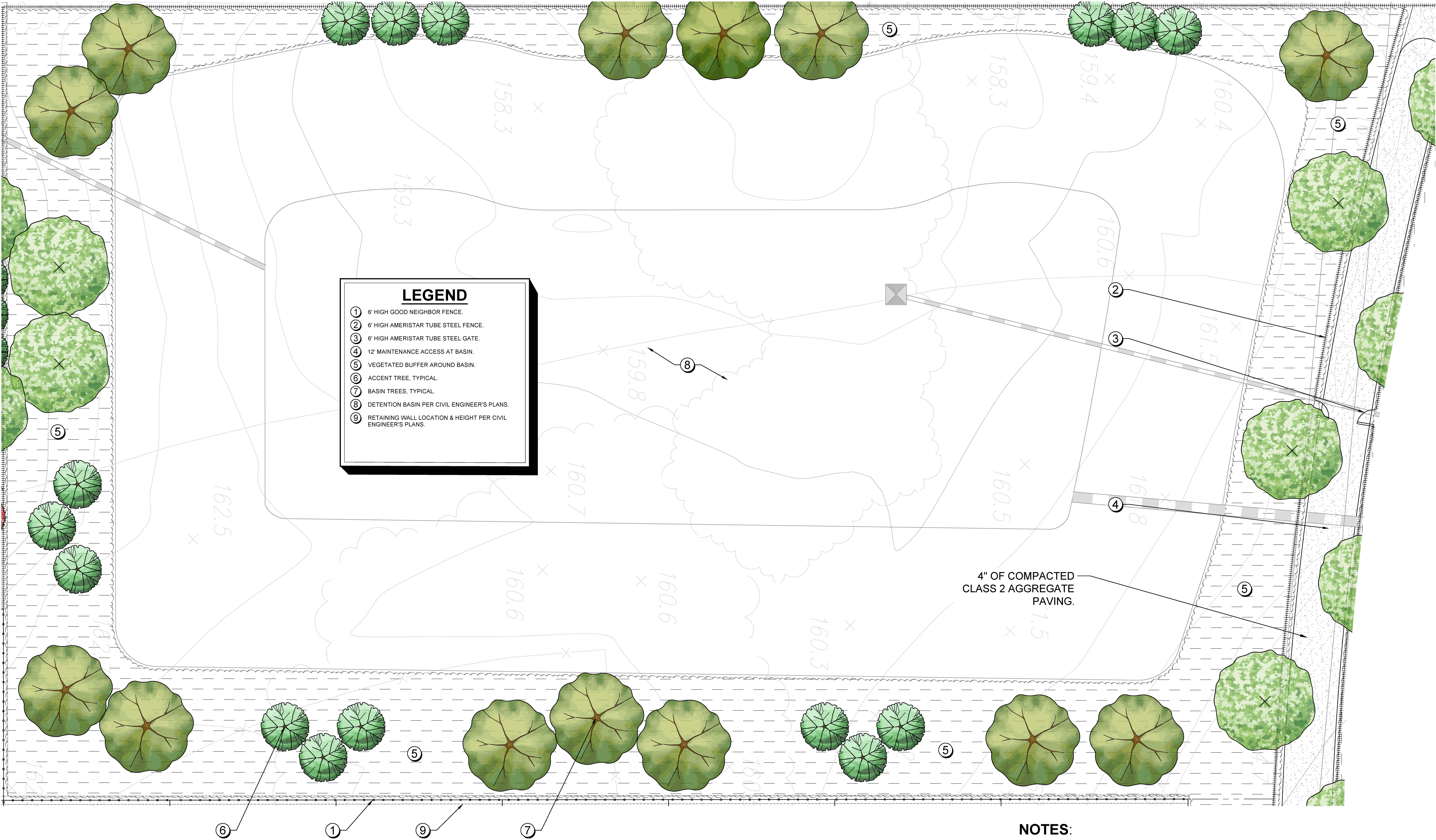
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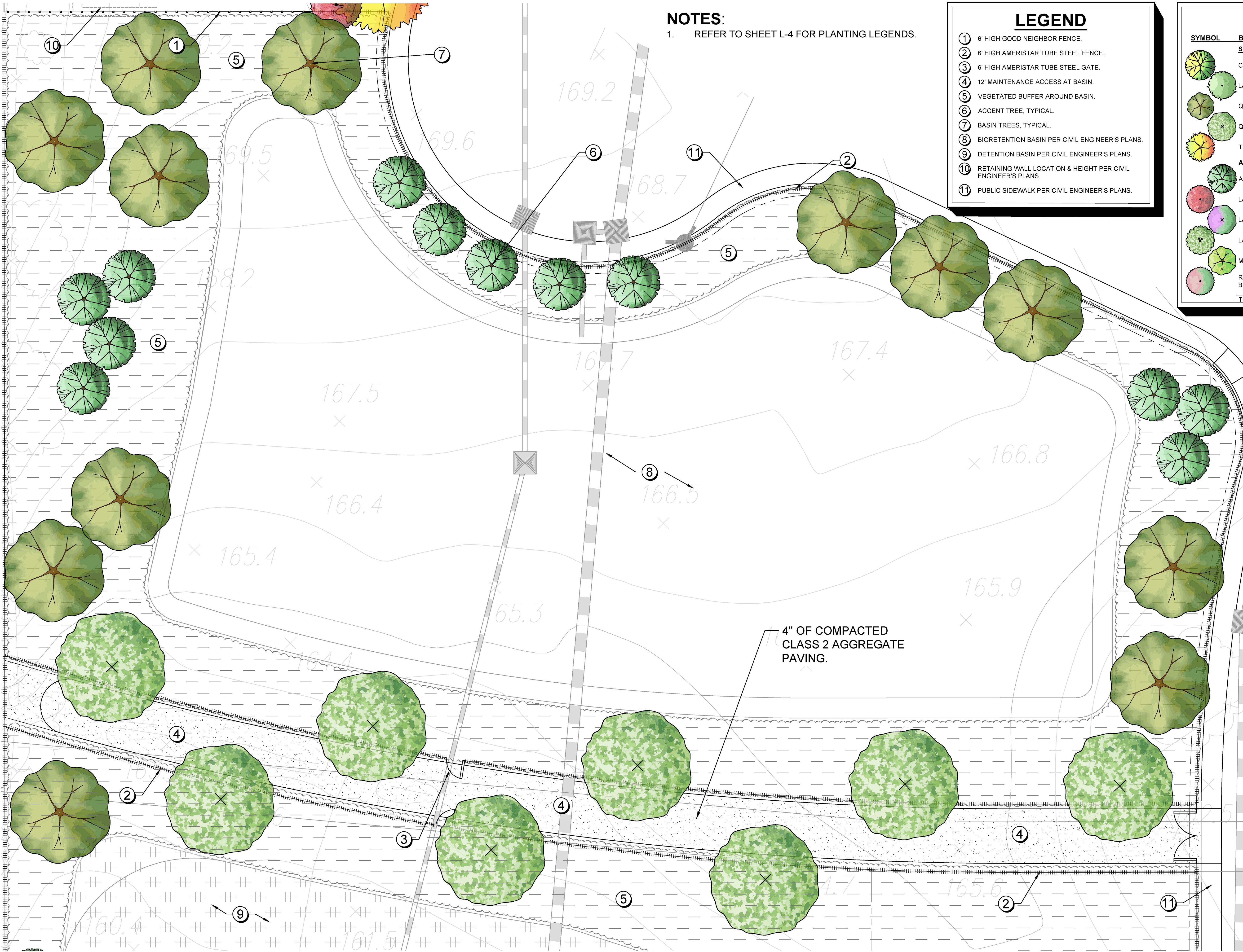


NORTH

L-4

Project No. 05623





NOTES:
1. REFER TO SHEET L-4 FOR PLANTING LEGENDS.

LEGEND	
①	6' HIGH GOOD NEIGHBOR FENCE.
②	6' HIGH AMERISTAR TUBE STEEL FENCE.
③	6' HIGH AMERISTAR TUBE STEEL GATE.
④	12' MAINTENANCE ACCESS AT BASIN.
⑤	VEGETATED BUFFER AROUND BASIN.
⑥	ACCENT TREE, TYPICAL.
⑦	BASIN TREES, TYPICAL.
⑧	BIORETENTION BASIN PER CIVIL ENGINEER'S PLANS.
⑨	DETENTION BASIN PER CIVIL ENGINEER'S PLANS.
⑩	RETAINING WALL LOCATION & HEIGHT PER CIVIL ENGINEER'S PLANS.
⑪	PUBLIC SIDEWALK PER CIVIL ENGINEER'S PLANS.

TREE LEGEND					
SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE	QTY.
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	LAGERSTROEMIA L. 'WHIT II'	DYNAMITE® CRAPE MYRTLE	15 GAL	LOW	27
	LAGERSTROEMIA X 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	15 GAL	LOW	26
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TOTAL TREES:		ALL TREES ARE STANDARD.			377

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10' FROM WATER SEWER, AREA DRAINS, & STREET SIGNAGE
15' FROM STREET LIGHTS
 - ALL TREES PLANTED WITHIN 5' OF PAVING, WATER METERS, OR JOINT TRENCHES SHALL RECEIVE LINEAR RECYCLED PLASTIC ROOT BARRIERS PARALLEL TO CURB AND WALKS, EACH SIDE (24" DEPTH X 10' LENGTH, MIN.) MANUF. DEEFOOT. #UB-24-2. (800) 458-7668.
 - ALL SHRUB AND FALLOW AREAS TO RECEIVE 3" MINIMUM DEPTH OF SHREDDED RECYCLED WOOD MULCH WITH NATURAL BROWN COLOR DYE ADDED. BARK COLORING TO BE MUIR WOODS BROWN, OR APPROVED EQUAL. PREPARED RECYCLED WOOD MULCH PROVIDED BY WASTE MANAGEMENT EARTH CARE, A DIVISION OF WASTE MANAGEMENT RECYCLE AMERICA (877) 963-2784.

KB HOME NORTH BAY
4830 BUSINESS CENTER DR., STE. 50
FAIRFIELD, CA 94534
707-389-7517

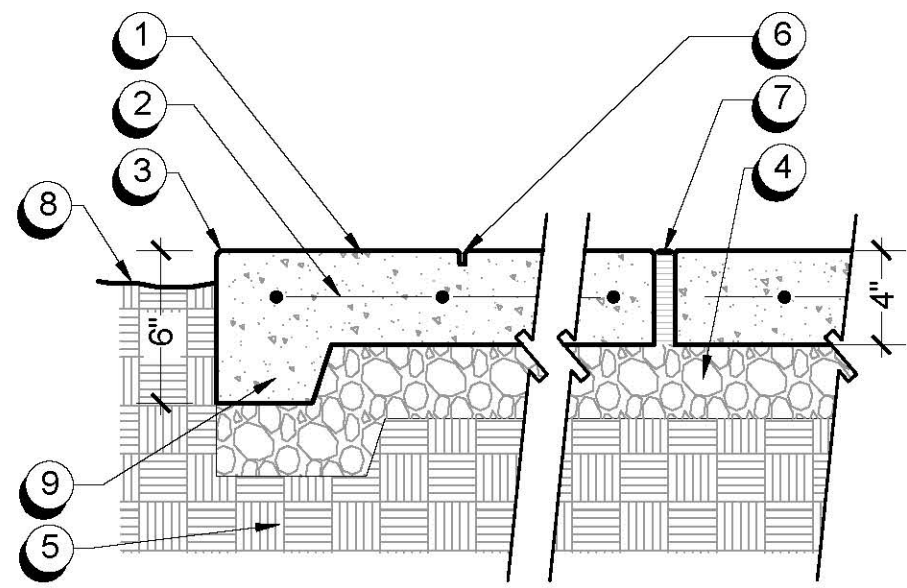
ROLLINGWOOD
VALLEJO, CALIFORNIA

BIORETENTION BASIN
CONCEPTUAL LANDSCAPE PLAN
JUNE 4, 2024

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558
tel: 707.224.2299
www.vandertoolen.com

0' 5' 10' 20'
SCALE: 1" = 10'-0"

L-6
Project No. 05623

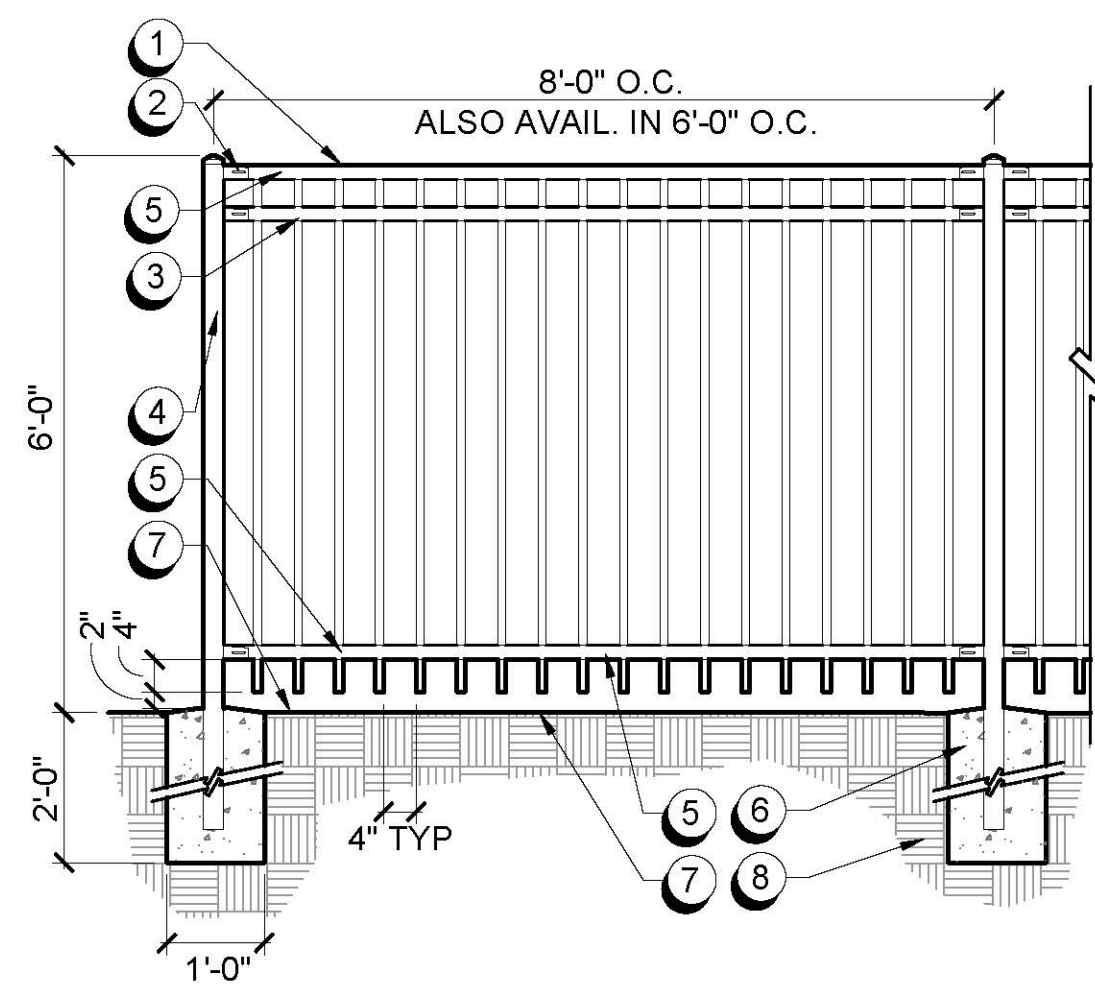


- 1 CONCRETE PAVING.
- 2 REINFORCING PER SOIL'S REPORT RECOMMENDATION.
- 3 1/2" TOOLED RADIUS.
- 4 CLASS II AGGREGATE BASE, COMPACTION, & THICKNESS PER SOIL'S REPORT RECOMMENDATION.
- 5 COMPACTED SUBGRADE OR ENGINEERED FILL.
- 6 1/4" WIDE X 3/4" DEEP TOOLED CONTROL JOINT (SEE PLANS).
- 7 3/8" WIDE FIBER FILLED EXPANSION JOINT W/ POLYSULFIDE SEALANT. SEALANT COLOR TO MATCH ADJACENT PAVING. SEE PLAN FOR LOCATION.
- 8 FINISH GRADE. 2" BELOW TOP OF PAVING FOR PLANTING AREA.
- 9 THICKENED EDGE AT PLANTING AREA WHERE REQUIRED OR UNDER PEDESTALS.

A CONCRETE PAVING

SCALE: 1-1/2" = 1'-0"

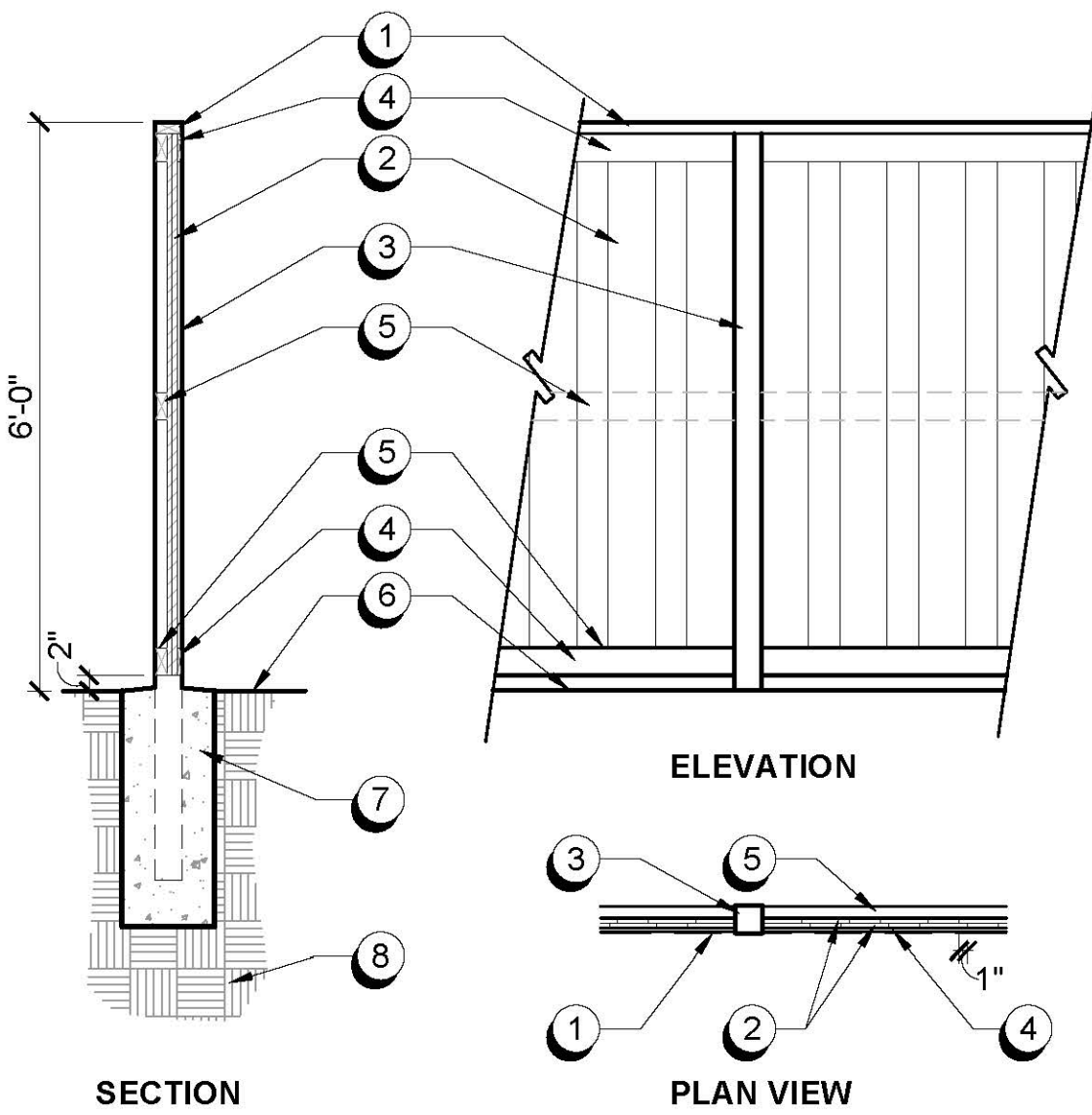
NOTES:
1. CONTACT AMERISTAR AT: 1-888-333-3422



- 1 "AMERISTAR MONTAGE CLASSIC" PRE-FAB. TUBE STEEL FENCE. STYLE TO BE: "UNIVERSAL 3- RAIL " PANELS AND POST ARE GALV. STEEL WITH "PERMACOAT" FINISH. COLOR TO BE BLACK.
 - 2 "FORERUNNER" CONNECTION SYSTEM. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE DETAIL BELOW FOR REFERENCE.
 - 3 5/8" SQ. PICKETS
 - 4 2" SQ. POST
 - 5 1-1/4" TOP AND BOTTOM RAIL
 - 6 CONCRETE FOOTING
 - 7 FINISH GRADE
 - 8 COMPACTED SUBGRADE OR ENGINEERED FILL.
- PANEL BRACKET
INTERNAL RETAINING ROD, CONTINUOUS
CONNECTION DETAIL
FORERUNNER RAIL SCREW

D TUBE STEEL FENCE - AMERISTAR

SCALE: 1/2" = 1'-0 "

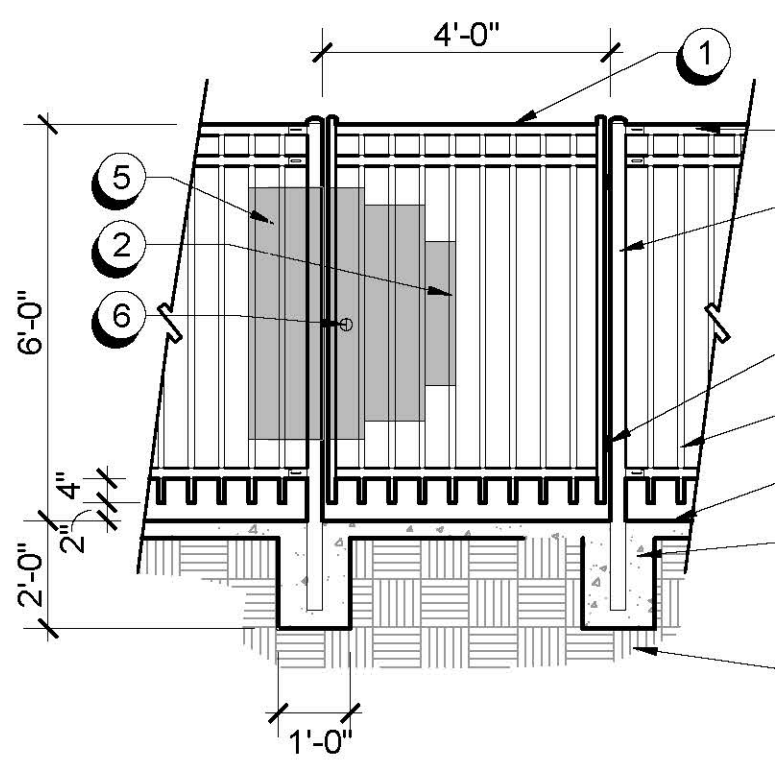


- 1 2 x 4 CAP RAIL
- 2 1 x 6 BOARD ON BOARD COVER BOARD WITH 1" OVERLAP
- 3 4 X 4 TREATED POST @ 8' O.C.
- 4 1 x 4 FASCIA BOARD (TOP & BOTTOM TRIM)
- 5 2 x 4 FENCE RAIL (TOP, MIDDLE & BOTTOM)
- 6 FINISH GRADE
- 7 8" X 24" DOMED CONCRETE FOOTING
- 8 COMPACTED SUBGRADE

NOTE:
-ALL OTHER WOOD SHALL BE CONSTRUCTION GRADE REDWOOD OR CEDAR.
-ALL NAILS SHALL BE HOT DIPPED GALVANIZED.

B GOOD NEIGHBOR WOOD FENCE

SCALE: 1/2" = 1'-0 "

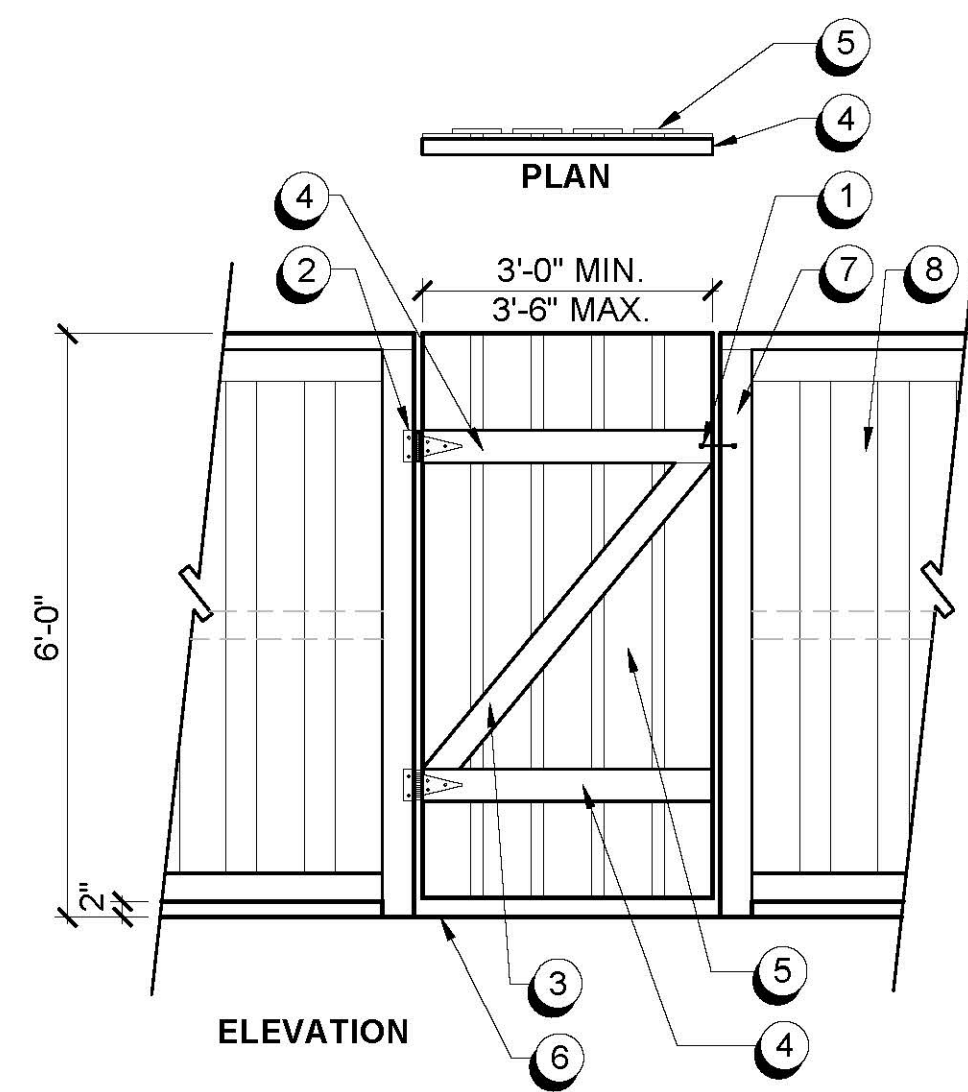


- 1 "AMERISTAR MONTAGE CLASSIC" PRE-FAB. TUBE STEEL GATE. STYLE TO BE: "UNIVERSAL 3- RAIL " PANELS AND POST ARE GALV. STEEL WITH "PERMACOAT" FINISH. COLOR TO BE BLACK.
- 2 5/8" SQ. PICKETS
- 3 1-1/4" TOP,BOTTOM AND SIDE RAIL
- 4 2" SQ. POST TUBE STEEL POST
- 5 STEEL MESH WELDED TO OUTSIDE OF FENCE/ GATE, MESH OPENING TO CONFORM W/ CITY STDS.
- 6 SELF LATCHING GATE. KEYED OUTSIDE/LEVER, HANDLE INSIDE, HEIGHT CONFORM W/ CITY STDS. 2-4" ONEWAY SELF CLOSING HINGES.
- 7 2-4" ONEWAY SELF CLOSING HINGES.
- 8 CONCRETE FOOTING
- 9 FINISH GRADE
- 10 COMPACTED SUBGRADE OR ENGINEERED FILL.

NOTES:
1. CONTACT AMERISTAR AT: 1-888-333-3422

E TUBE STEEL GATE - AMERISTAR

SCALE: 3/8" = 1'-0"

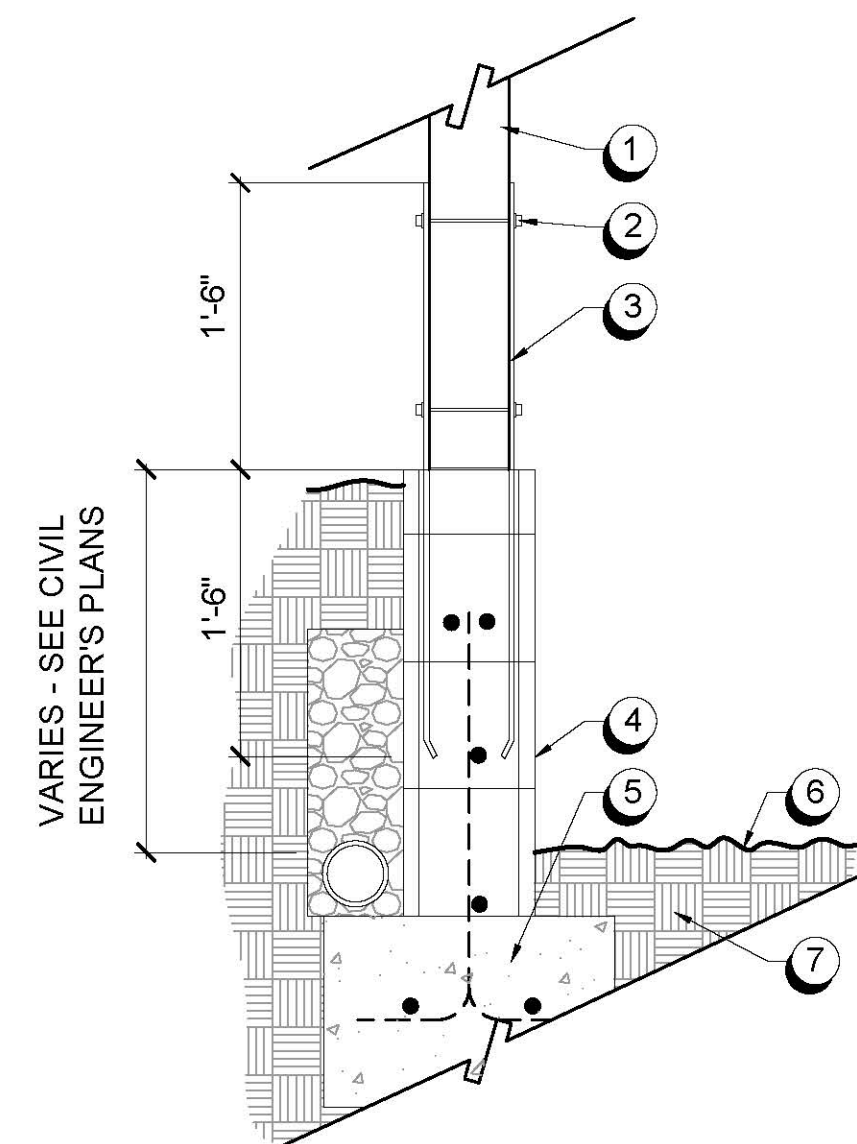


- 1 GATE LATCH.
- (2) GATE HINGES.
- 2 X 4 DIAGONAL BRACE.
- 2 X 4 HORIZONTAL BRACE.
- 5/8 X 6 ALTERNATING BOARDS.
- FINISH GRADE.
- 4 X 4 PTFD POST - SEE FENCE DETAIL B, THIS SHEET FOR FOOTING.
- ADJACENT FENCE. SEE DETAIL B, THIS SHEET.

NOTE:
- ALL WOOD MEMBERS SHALL BE CONSTRUCTION GRADE REDWOOD OR CEDAR.
- ALL NAILS SHALL BE HOT DIPPED GALVANIZED.
- CONTRACTOR TO PROVIDE ALT. BID CON. HEART POSTS.
- GATES WIDER THAN 3'-0" REQUIRE 4" X 6" POST, HINGED SIDE ONLY.

C GOOD NEIGHBOR WOOD GATE

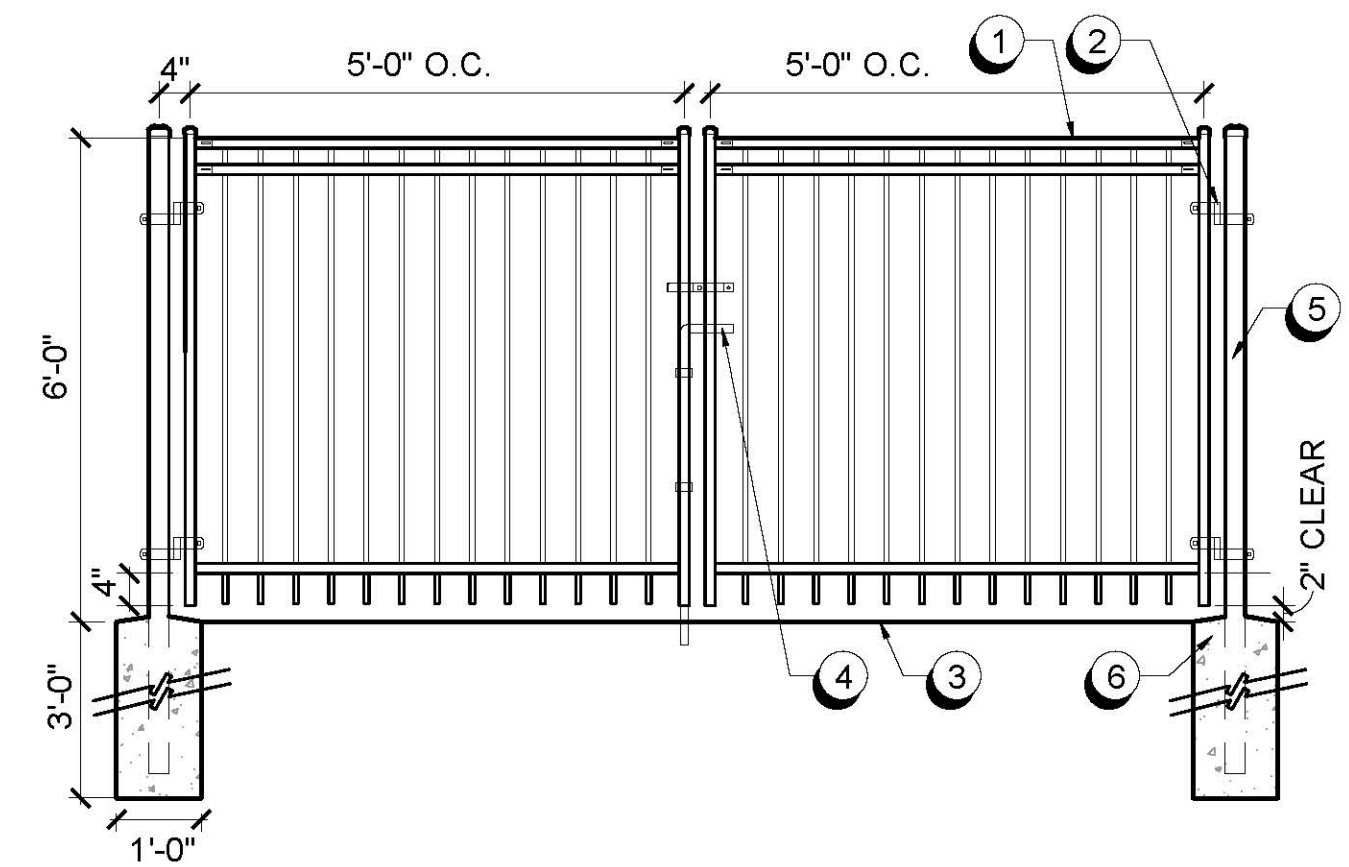
SCALE: 1/2" = 1'-0 "



- 1 POST W/ ALUMINUM INSERT. SEE DETAIL B & D, THIS SHEET, FOR FENCE SPECIFICATIONS.
- 5/8 Ø BOLTS.
- 2" X 1/8" GALVANIZED WELDED BRACKET WET SET IN WALL AT 6'-0" ON CENTER.
- 4 RETAINING WALL PER CIVIL ENGINEER'S PLANS.
- 5 FOOTING, DRAINAGE & DESIGN PER STRUCTURAL AND CIVIL ENGINEER'S PLANS.
- 6 FINISH GRADE.
- 7 COMPACTED SUBGRADE OR ENGINEERED FILL.

F FENCE ON RETAINING WALL

SCALE: 1" = 1' - 0"



- 1 AMERISTAR PRE-FAB. TUBE STEEL DOUBLE GATE OR EQUAL. STYLE TO BE "MONTAGE MAJESTIC." SEE DETAIL D, THIS SHEET, FOR FINISH AND SPECIFICATIONS.
- BOLT ON HINGE.
- FINISH GRADE.
- GATE LATCH
- 2 1/2" SQ. 12 GA POST.
- CONCRETE FOOTING, TYP.

NOTES:
1. CONTACT AMERISTAR AT: 1-888-333-3422

G VEHICULAR/MAINTENANCE ACCESS GATE

SCALE: NTS

kb
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707-389-7517

ROLLINGWOOD
VALLEJO, CALIFORNIA

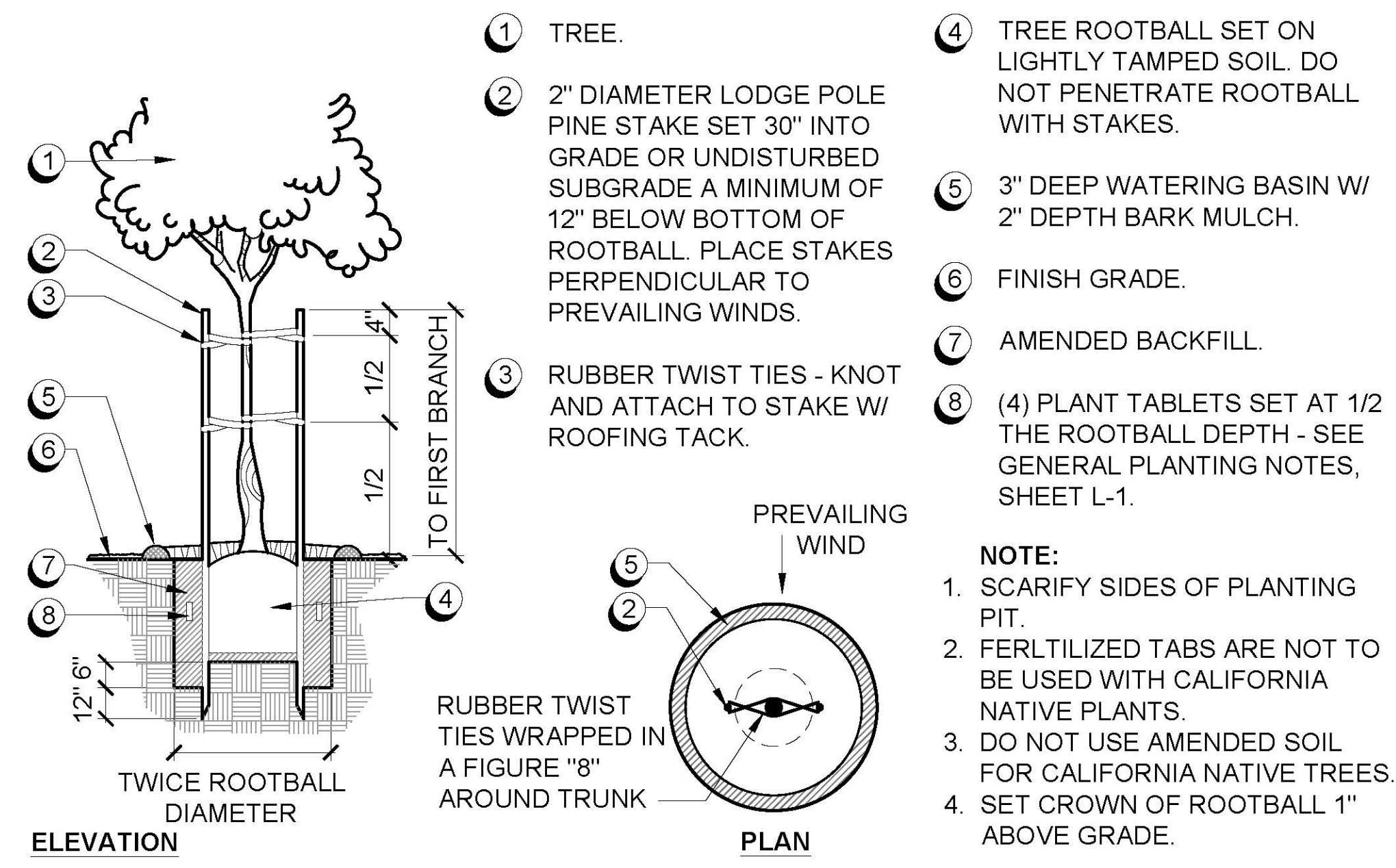
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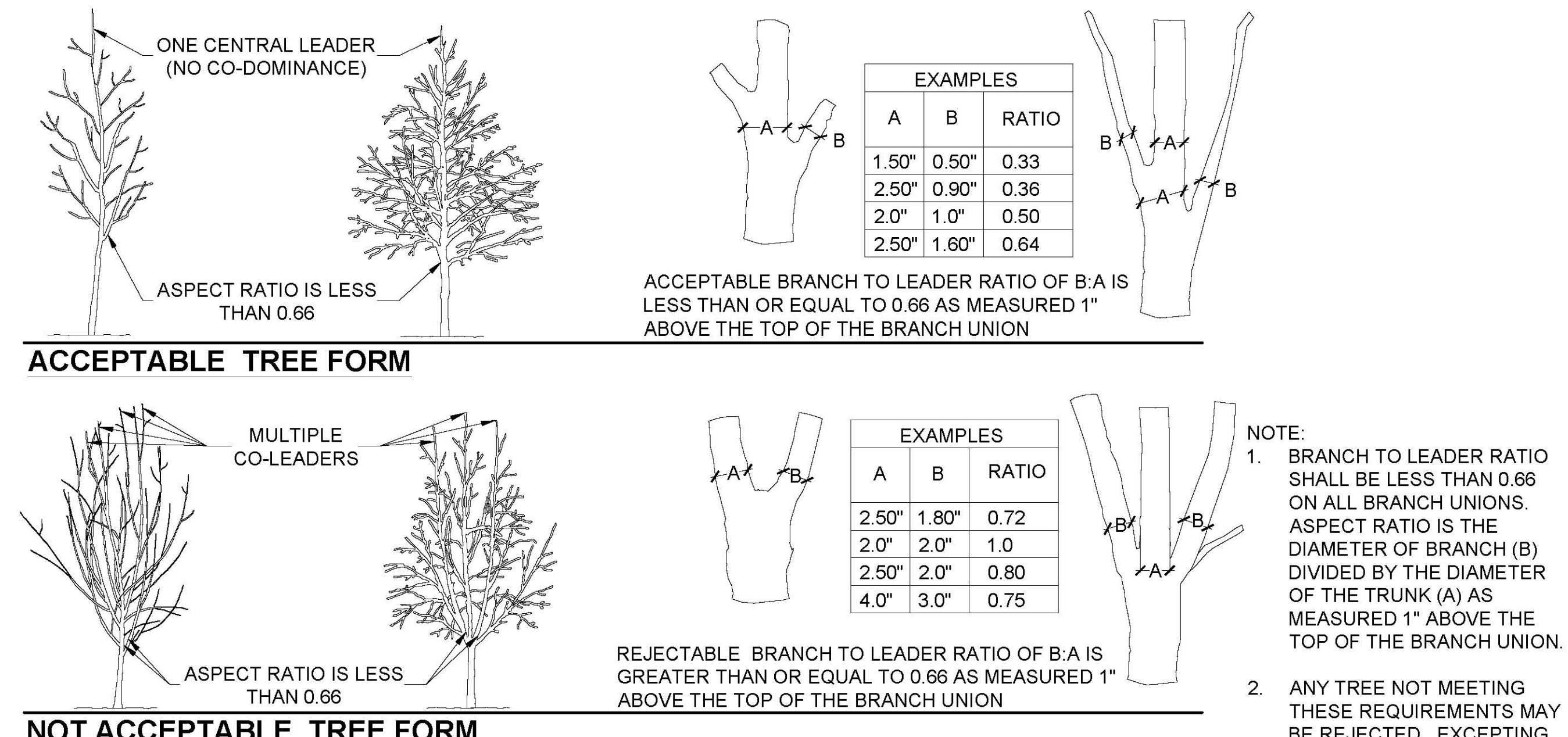
L-7

Project No. 05623



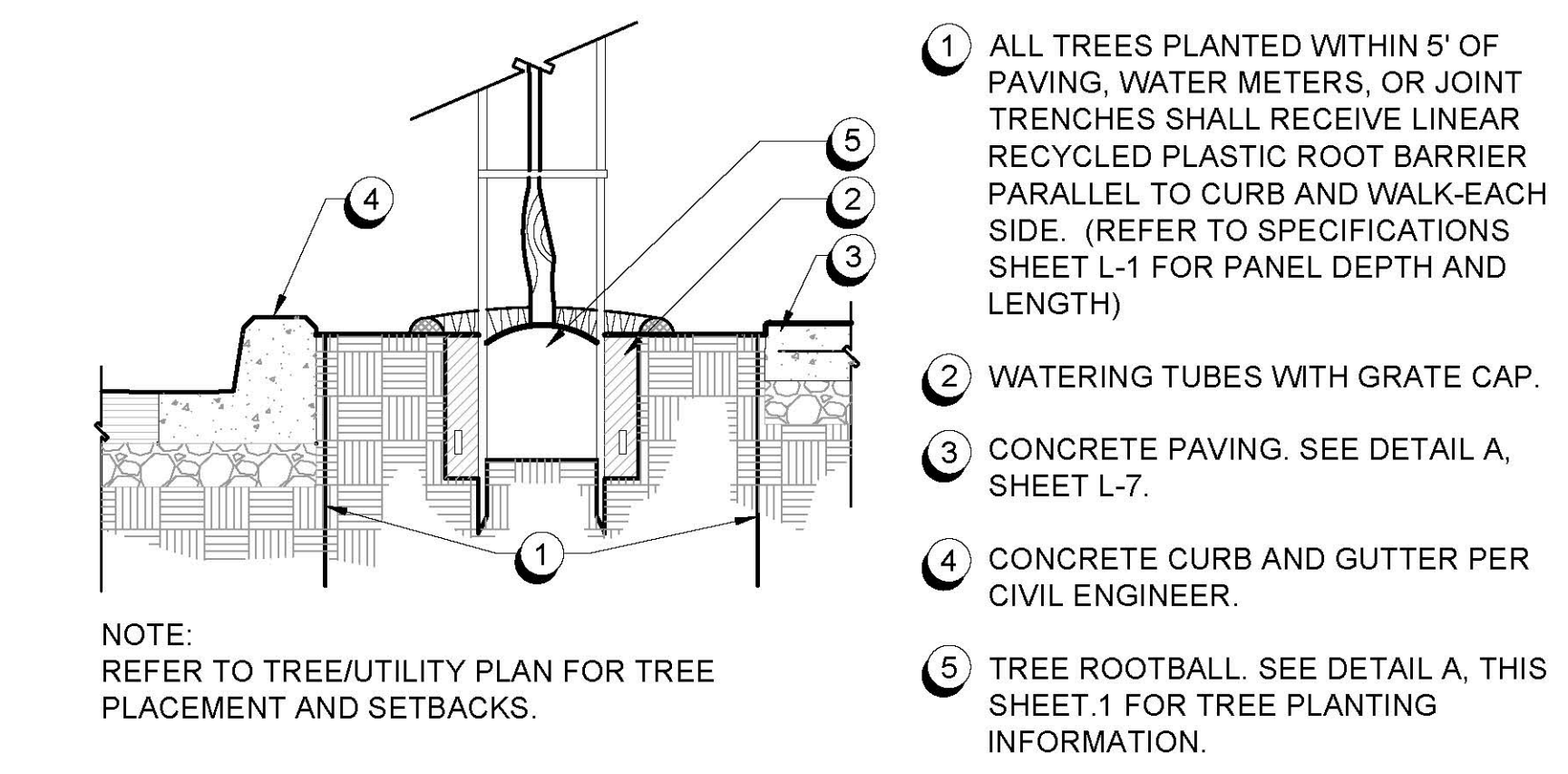
A TREE STAKING

N.T.S.



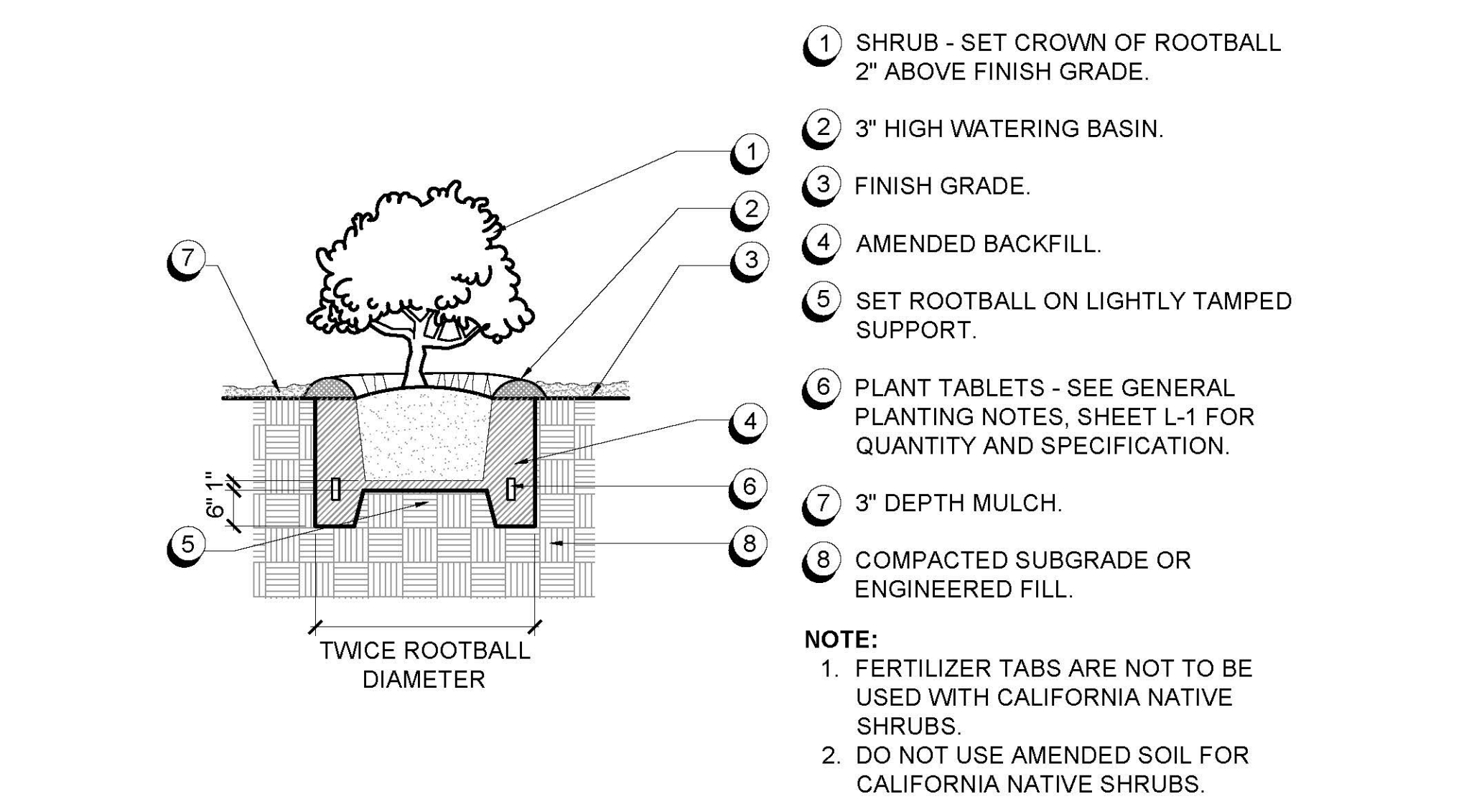
B TREE BRANCHING STRUCTURE

SCALE: N.T.S.



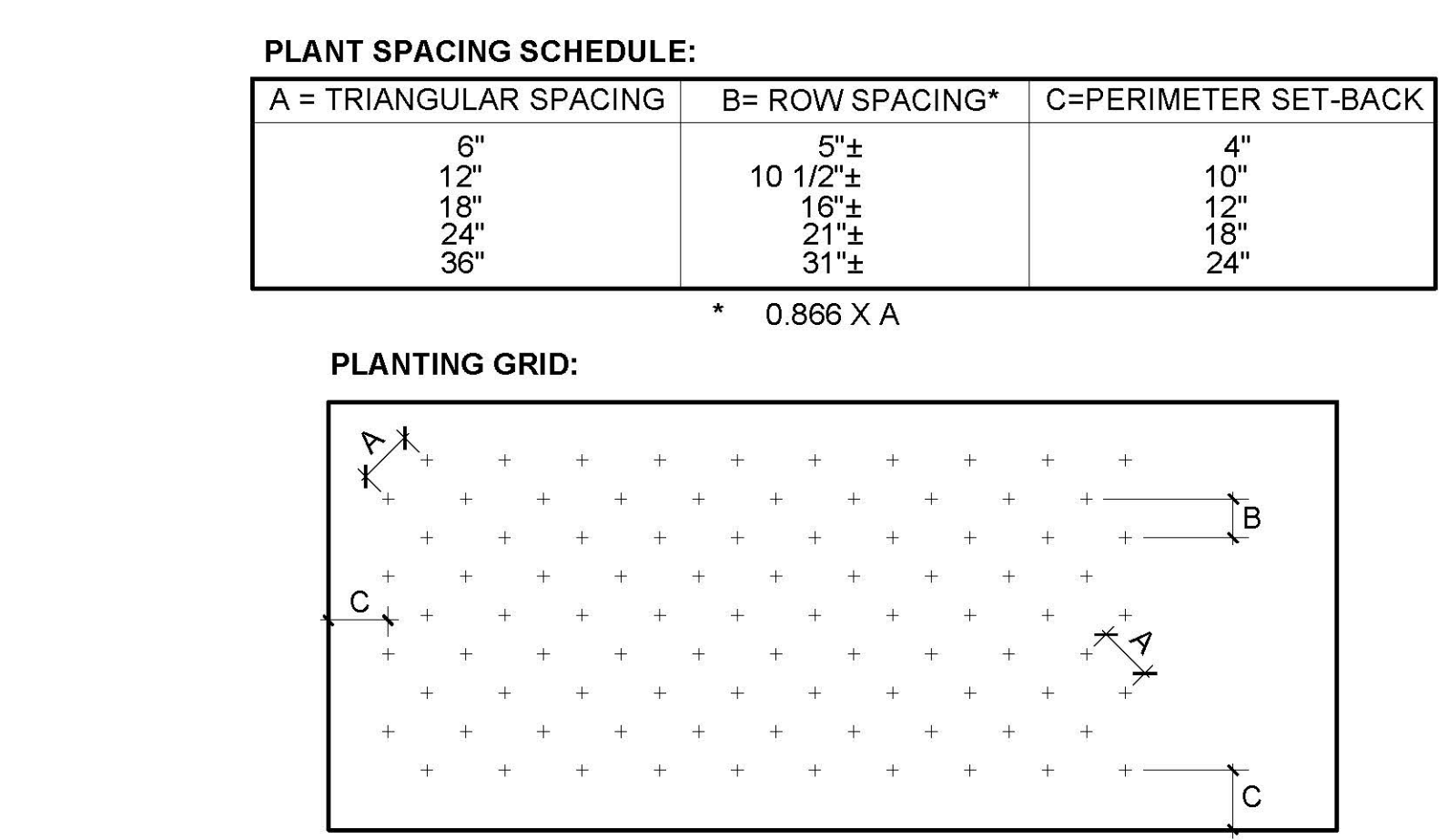
C ROOT BARRIER

N.T.S.



D SHRUB PLANTING

N.T.S.



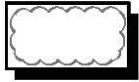
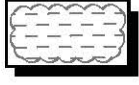
E GROUND COVER SPACING CHART

N.T.S.

Use drop down menus or type in values in white cells only. Results appear in Yellow or Red highlighted cells below.

Site Information		Site Name →		Site Type →		Annual Eto (inches/yr) →		Allowed ETAF: 0.55	
		Rollingwood - Vallejo, CA		Residential		39			
Hydrozone or Planting Description (a)	Plant Factor (PF)	Irrigation Method (b)	Irrigation Efficiency (IE) (c)	ETAF (PF/IE)	Landscape Area (sqft.)	ETAF x Area	*Estimated Total Water Use (gal./Yr.)		
Regular Landscape Areas									
1- SHRUBS (LOW/MOD)	0.3	Low	Drip	0.81	0.4	60,840	22,533	544,856	
2- 159 TREES (LOW)	0.2	Low	Bubbler	0.81	0.2	6,032	1,489	36,013	
3- 199 TREES (MOD)	0.3	Low	Bubbler	0.81	0.4	0	0	0	
					SUBTOTAL →	66,872	24,023	580,869	
Special Landscape Areas (SLA)									
4- BIOTENTATION BASIN					1	22,516	22,516	544,437	
5- DETENTION BASIN					1	40,548	40,548	980,451	
6- TOP OF BASIN					1	42,548	42,548	1,028,611	
7- HYDROSEED ON SLOPE					1	45,641	45,641	1,103,399	
					SUBTOTAL →	151,253	151,253	3,657,298	
					**Estimated Total Water Use (ETWU) →		4,238,167		
					Maximum Allowed Water Allowance (MAWA) →		4,546,628		
(a) Hydrozone #/Planting Description		(b) Irrigation Method		(c) Irrigation Efficiency		(*) ETWU (Annual Gallons Required)=			
1.) Front Lawn		Overhead Spray		0.75 for spray head		Eto x 0.62 x ETAF x Area where			
2.) Low water use planting		Drip		0.81 for drip		0.62 is a conversion factor that converts acre-			
3.) medium water use		Bubbler				inches per acre per year to gallons per square foot per year			
(**) MAWA (Annual Gallons Allowed)=									
(Eto) x (0.62) x [(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, and ETAF is 0.55 for residential									
areas and 0.45 for non-residential areas.									
ETAF Calculations									
Regular Landscape Areas		Total ETAF x Area		24,023					
		Total Area		66,872					
		Average ETAF		0.36					
All Landscape Areas		Total ETAF x Area		175,276					
		Total Area		218,125					
		Sitewide ETAF		0.80					
Notes:									
Average ETAF (ET adjustment Factor) for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.									

F WATER USE CALCULATIONS

PROPOSED PLANT PALETTE				
SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE
	SHRUBS, GRASSES, & GROUNDCOVERS			
	AGAPANTHUS HYBRID SPECIES	LILY-OF-THE-NILE	L	5 GAL
	AGAVE SPECIES	AGAVE	L	1 GAL
	ANIGOZANTHOS SPECIES	KANGAROO PAW	L	5 GAL
	ARCTOSTAPHYLOS VARIETIES	MANZANITA	L	5 GAL
	BOUTELOUA GRACILIS VARIETIES	BLUE GRAMA GRASS	L	1 GAL
	BULBINE FRUTESCENS VARIETIES	BULBINE	L	1 GAL
	CALLISTEMON VIMINALIS VARIETIES	BOTTLEBRUSH	L	5 GAL
	CAREX SPECIES	SEDGE	L	1 GAL
	CEANOTHUS SPECIES	WILD LILAC	L	5 GAL
	COPROSMA K. 'VARIEGATA'	COPROSMA KIRKII VARIEGATA	L	1 GAL
	COTONEASTER SPECIES	BEARBERRY COTONEASTER	L	1 GAL
	CUPRESSUS SEMPERVIRENS VARIETIES	DWARF ITALIAN CYPRESS	L	15 GAL
	DIETES SPF	FORTNIGHT LILY	L	1 GAL
	DODONAEA VISCOSA 'PURPUREA'	PURPLE HORSEDEE BUSH	L	15 GAL
	ELYMUS CONDENSATUS VARIETIES	WILD RYE GRASS	L	1 GAL
	EPILOBIUM CALIFORNICA	CALIFORNIA FUCHSIA	L	5 GAL
	FESTUCA SPECIES	FESCUE	L	1 GAL
	GREVILLEA SPECIES	GREVILLEA	L	5 GAL
	HELIANTHEMUM NUMMULARIUM	SUNROSE	L	1 GAL
	LANDULUA A. 'MEERLO'	MEERLO LAVENDER	L	1 GAL
	LOMANDRA LONGIFOLIA VARIETIES	DWARF MAT RUSH	L	1 GAL
	LOROPETALUM CHINENSE VARIETIES	FRINGE FLOWER	L	5 GAL
	MAHONIA SPECIES	MAHONIA	L	5 GAL
	MYOPORUM PARVIFOLIUM VARIETIES	CREEPING MYOPORUM	L	1 GAL
	NANDINA DOMESTICA VARIETIES	HEAVENLY BAMBOO	L	1 GAL
	OLEA EUROPAEA VARIETIES	DWARF OLIVE	L	5 GAL
	PENSTEMON CHA CHA 'HOT PINK'	BEARDTONGUE	L	1 GAL
	PHORMIUM T. 'MAORI QUEEN'	NEW ZEALAND FLAX	L	1 GAL
	PITTOSPORUM TOBIRA SPECIES	PITTOSPORUM	L	15 GAL
	RHAMNUS A. 'JOHN EDWARDS'	ITALIAN BUCKTHORN	L	15 GAL
	RHAPHIOLEPIS INDICA VARIETIES	INDIA HAWTHORN	L	5 GAL
	ROSMARINUS SPECIES	ROSEMARY	L	5 GAL
	SALVIA SPECIES	SAGE	L	5 GAL
	SCAEVOLA 'MAUVE CLUSTERS'	FAN FLOWER	L	1 GAL
	TEUCRIUM SPECIES	GERMANDER	L	1 GAL
	WESTRINGIA SPECIES	COAST ROSEMARY	L	5 GAL
	XYLOSMA C. 'COMPACTA'	COMPACT SHINY XYLOSMA	L	15 GAL
	YUCCA F. 'COLOR GUARD'	ADAM'S NEEDLE, YUCCA	L	5 GAL
	BIORETENTION			
	PACIFIC COAST SEED, INC.	NATIVE ORNAMENTAL BIOSWALE MIX	L	HYDROSEED 23,861 SF
	BIORETENTION BASIN - VEGETATED BUFFER			
	ALYOGYNE HUEGELII	BLUE HIBISCUS	L	5 GAL
	BACCHARIS PILULARIS VARIETIES	COYOTE BRUSH	L	5 GAL
	BOUTELOUA GRACILIS VARIETIES	BLUE GRAMA GRASS	L	1 GAL
	CAREX DIVULSA	BERKELEY SEDGE	L	1 GAL
	CARPENTERIA CALIFORNICA	BUSH ANEMONE	L	5 GAL
	ELYMUS TRITICOIDES	CREEPING WILD RYE	L	1 GAL
	EPILOBIUM CANUM	CALIFORNIA FUCHSIA	L	1 GAL
	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	L	1 GAL
	IRIS DOUGLASIANA	PURPLE DOUGLAS IRIS	L	1 GAL
	JUNCUS PATENS	CREEPING WILD RYE	L	1 GAL
	LEYMUS T. 'GREY DAWN'	CALIFORNIA GRAY RUSH	L	1 GAL
	MIMULUS SPECIES	MONKEY FLOWER	L	1 GAL
	MUHLENBERGIA RIGENS	DEER GRASS	L	1 GAL
	SCAEVOLA 'MAUVE CLUSTERS'	FAN FLOWER	L	1 GAL
	HYDROSEED (GRASSES & WILDFLOWER MIX)			
	ACHILLEA MILLEFOLIUM	NATIVE WHITE YARROW	L	HYDROSEED
	CLARKIA PURPUREA	PURPLE CLARKIA	L	84,161 SF
	DESCHAMPSIA C. 'HOLCIFORMIS'	TURTLED HAIRGRASS	L	
	ERIOPHYLLUM CONFERTIFLORUM	GOLDEN YARROW	L	
	ESCHSCHOLZIA C. 'MARITIMA'	NATIVE POPPY	L	
	FESTUCA IDAHOENSIS	NATIVE IDAHOE FESCUE 'MT. TAM'	L	
	FESTUCA OCCIDENTALIS	WESTERN FESCUE MOKELUMNE	L	
	LINUM LEWISII	BLUE FLAX	L	
	LUPINUS NANUS	SKY LUPINE	L	
	PLAGIOBOTHRYS NOTHOPULVUS	POPCORN FLOWER	L	
	RANUNCULUS CALIFORNICUS	CALIFORNIA BUTTERCUP	L	
	SISYRINCHIUM BELLUM	BLUE-EYED GRASS	L	
* WATER NEEDS BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION.				

TREE LEGEND					
SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS	MIN. SIZE	QTY.
STREET TREES					
	CELTIS AUSTRALIS	EUROPEAN HACKBERRY	24"BOX	LOW	48
	LAURUS N. 'SARATOGA'	SWEET BAY	24"BOX	LOW	54
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24"BOX	LOW	27
	QUERCUS SUBER	CORK OAK	24"BOX	LOW	12
	TILIA TOMENTOSA	SILVER LINDEN	24"BOX	LOW	64
ACCENT TREES					
	AGONIS FLEXUOSA	PEPPERMINT TREE	15 GAL	LOW	36
	LAGERSTROEMIA L. 'WHIT II'	DYNAMITE® CRAPE MYRTLE	15 GAL	LOW	27
	LAGERSTROEMIA X 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	15 GAL	LOW	26
	LAGERSTROEMIA X 'NATCHEZ'	CRAPE MYRTLE	15 GAL	LOW	26
	METROSIDEROS EXCELSA	NEW ZEALAND CHRISTMAS TREE	15 GAL	LOW	31
	RHAPHIOLEPIS I. 'MAJESTIC BEAUTY'	STANDARD INDIAN HAWTHORNE	15 GAL	LOW	26
TOTAL TREES:			ALL TREES ARE STANDARD.		

FRONT YARD ACCENT TREES



LAGERSTROEMIA L. 'WHIT II'



LAGERSTROEMIA I. 'NATCHEZ'



RHAPHIOLEPIS I. 'MAJESTIC BEAUTY'

STREET TREES



CELTIS AUSTRALIS



LAURUS N. 'SARATOGA'



TILIA TOMENTOSA

BASIN TREES



AGONIS FLEXUOSA



QUERCUS SUBER



QUERCUS AGRIFOLIA

SHRUBS & GRASSES



AGAPANTHUS HYBRID SPECIES



AGAVE SPECIES



ANIGOZANTHOS SPECIES



BOUTELOUA GRACILIS VARIETIES



CALLISTEMON VIMINALIS VARIETIES



DIETES SPECIES



DODONAEA V. 'PURPUREA'



GREVILLEA SPECIES



LOMANDRA SPECIES



LOROPETALUM CHINENSE VARIETIES



NANDINA DOMESTICA VARIETIES



PENSTEMON C. 'HOT PINK'



PHORMIUM T. 'MAORI QUEEN'



RHAMNUS A. 'JOHN EDWARDS'



RHAPHIOLEPIS SPECIES



ROSMARINUS SPECIES



SALVIA SPECIES.



YUCCA F. 'COLOR GUARD'

GROUNDCOVERS



CAREX SPECIES



COPROSMA K. 'VARIEGATA'



COTONEASTER SPECIES



HELIANTHEMUM N. 'YELLOW'



MYOPORUM PARVIFOLIUM



ROSMARINUS O. 'HUNTINGTON CARPET'

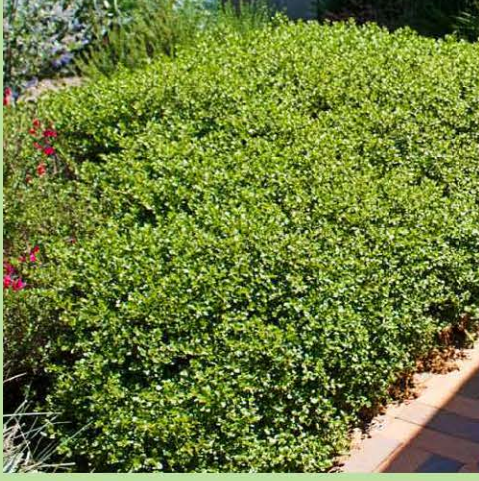


SCAEVOLA A. 'MAUVE CLUSTERS'

BIORETENTION



ALYOGYNE HUEGELII



BACCHARIS PILULARIS VARIETIES



CARPENTERIA CALIFORNICA



JUNCUS PATENS



MIMULUS CARDINALIS



MUHLENBERGIA RIGENS



IRIS DOUGLASIANA

HYDROSEED



GRASSES & WILDFLOWER HYDROSEED MIX



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ROLLINGWOOD

VALLEJO, CALIFORNIA

PLANT IMAGERY

CONCEPTUAL LANDSCAPE PLAN
JUNE 4, 2024

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558

tel: 707.224.2299
www.vandertoolen.com



L-9

Project No. 05623

ELEVATION LEGEND

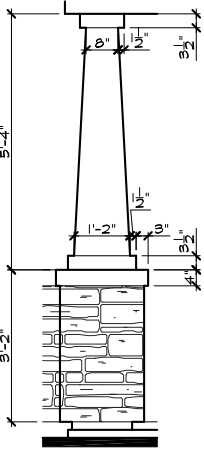
- 1 CONCRETE 'S' TILE ROOFING
- 2 CONCRETE FLAT TILE ROOFING
- 3 WOOD FASCIA BOARD
- 4 STUCCO FINISH
- 5 STUCCO OVER FOAM TRIM
- 6 STUCCO OVER FOAM CORBELS
- 7 DECORATIVE STUCCO COLUMNS (STUCCO OVER WOOD FRAMING)
- 8 PRE-FAB WINDOW SYSTEM
- 9 COMPOSITE ENTRY DOOR
- 10 METAL ROLL-UP GARAGE DOOR
- 11 DECORATIVE SHUTTERS
- 12 STUCCO OVER SHAPED FOAM TRIM
- 13 DECORATIVE STUCCO RECESS
- 14 CEMENT FIBER SIDING
- 15 DECORATIVE CLAY PIPE
- 16 STONE VENEER
- 17 DECORATIVE FOAM VENTS
- 18 COACH LIGHT
- 19 DECORATIVE BOARD & BATTEN
- 20 WOOD POST
- 21 BRICK VENEER
- 22 FIBER CEMENT CORBEL
- 23 ILLUMINATED ADDRESS SIGN
- 24 DECORATIVE OUTLOOKER WITH KNEEBRACE
- 25 FIBER CEMENT TRIM



Elevation 'A' - Spanish



Elevation 'B' - Craftsman



Elevation 'C' - Farmhouse

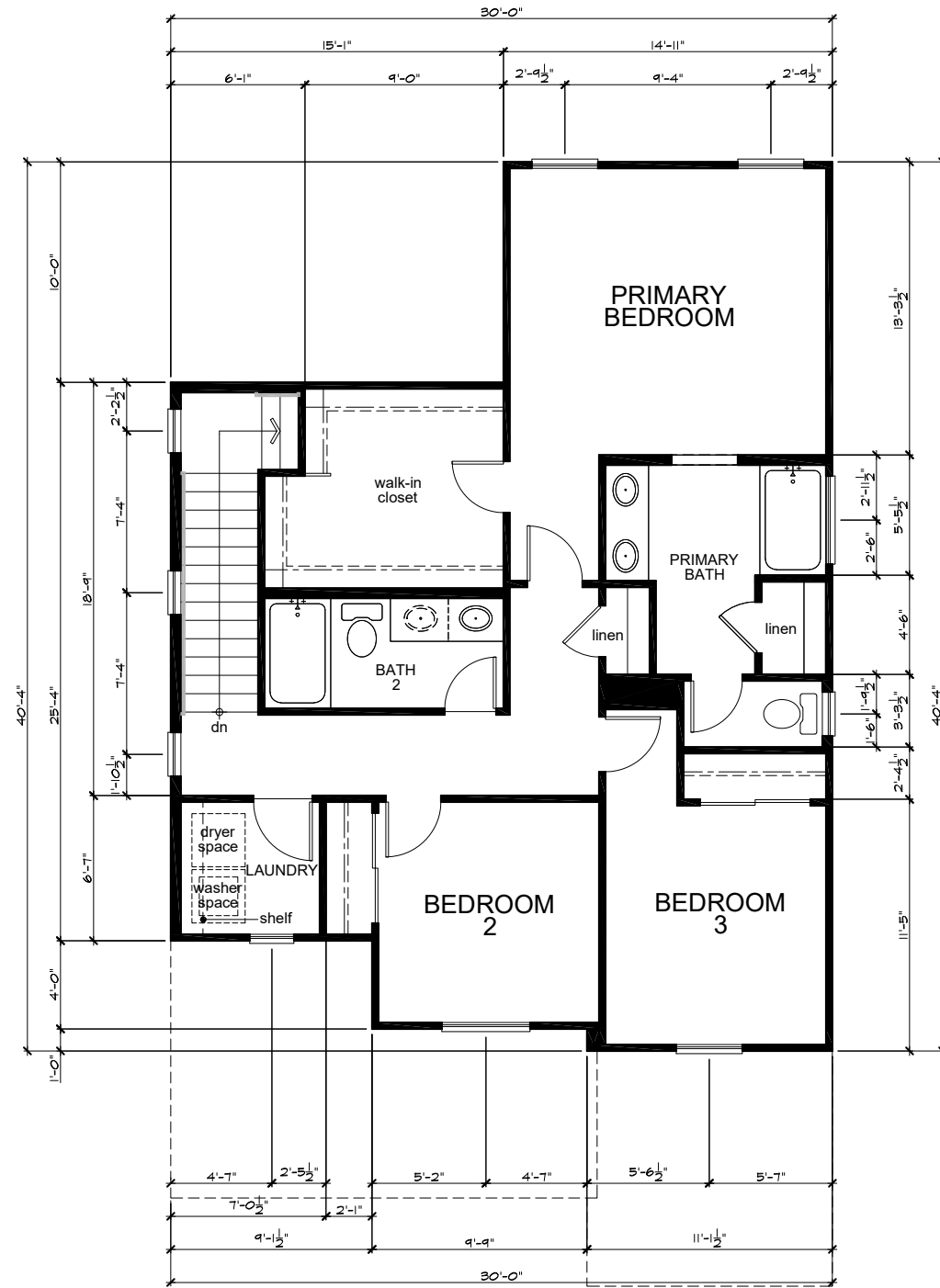


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4830 Business Center Drive Suite 150
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CITY OF VALLEJO

ROLLINGWOOD

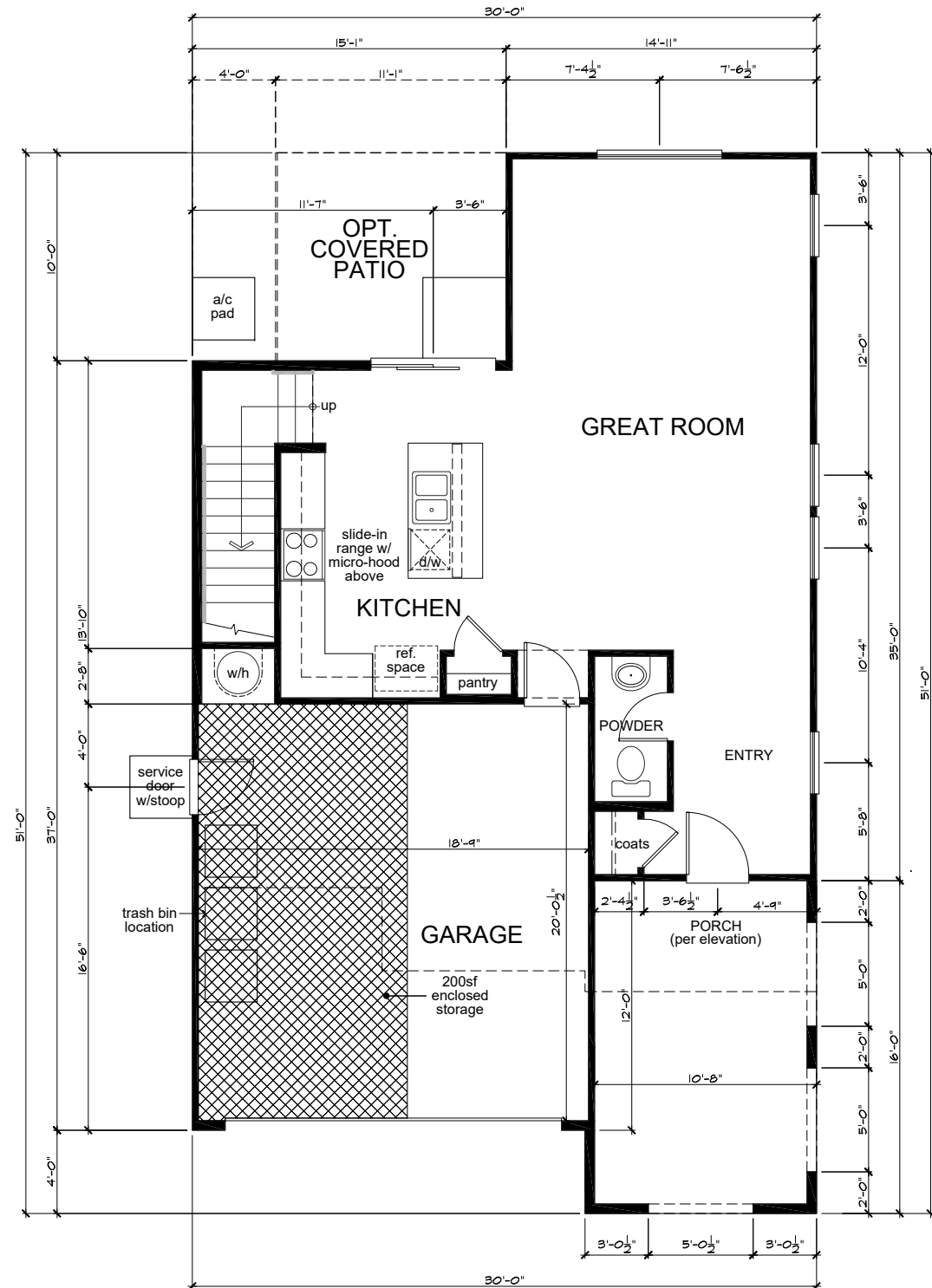


PLAN No. : 230.1664
JOB No. : 600153
STORY: Two Story
March 28, 2024

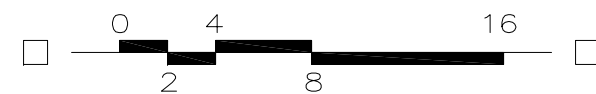


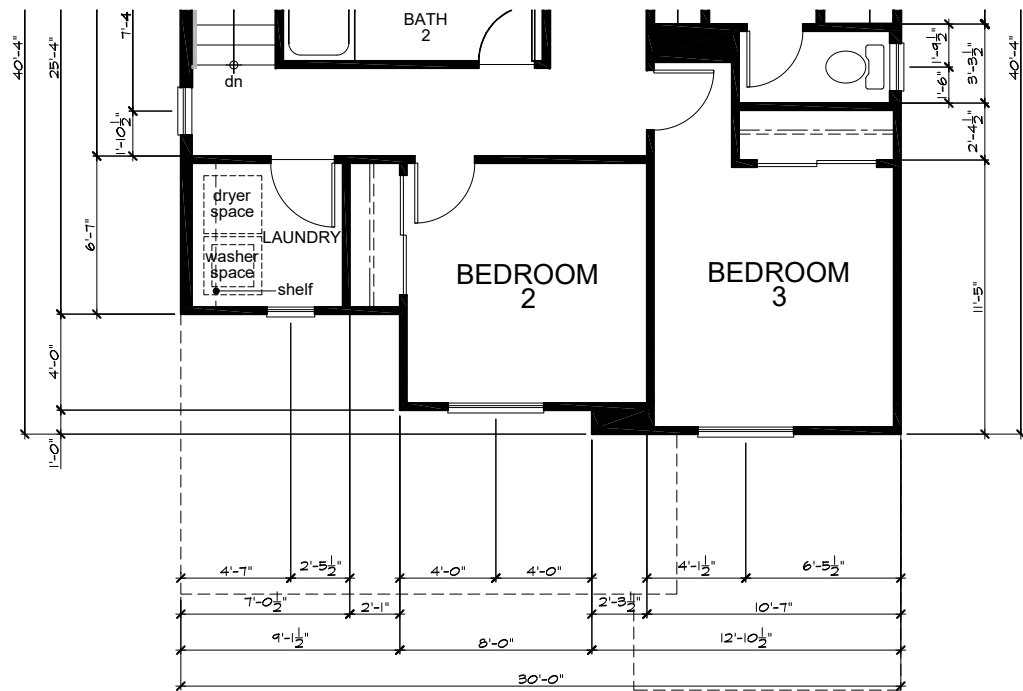
Second Floor Plan 'A'

SQUARE FOOTAGE				
PLAN 230.1664				
	'A'	'B'	'C'	
FIRST FLOOR AREA	1271	1271	1271	SQ. FT.
SECOND FLOOR AREA	487	447	487	SQ. FT.
TOTAL AREA	1664	1674	1664	SQ. FT.
GARAGE AREA	404	404	404	SQ. FT.
PORCH AREA	172	173	172	SQ. FT.
OPTIONS:				
COVERED PATIO	III	III	III	SQ. FT.



First Floor Plan 'A'

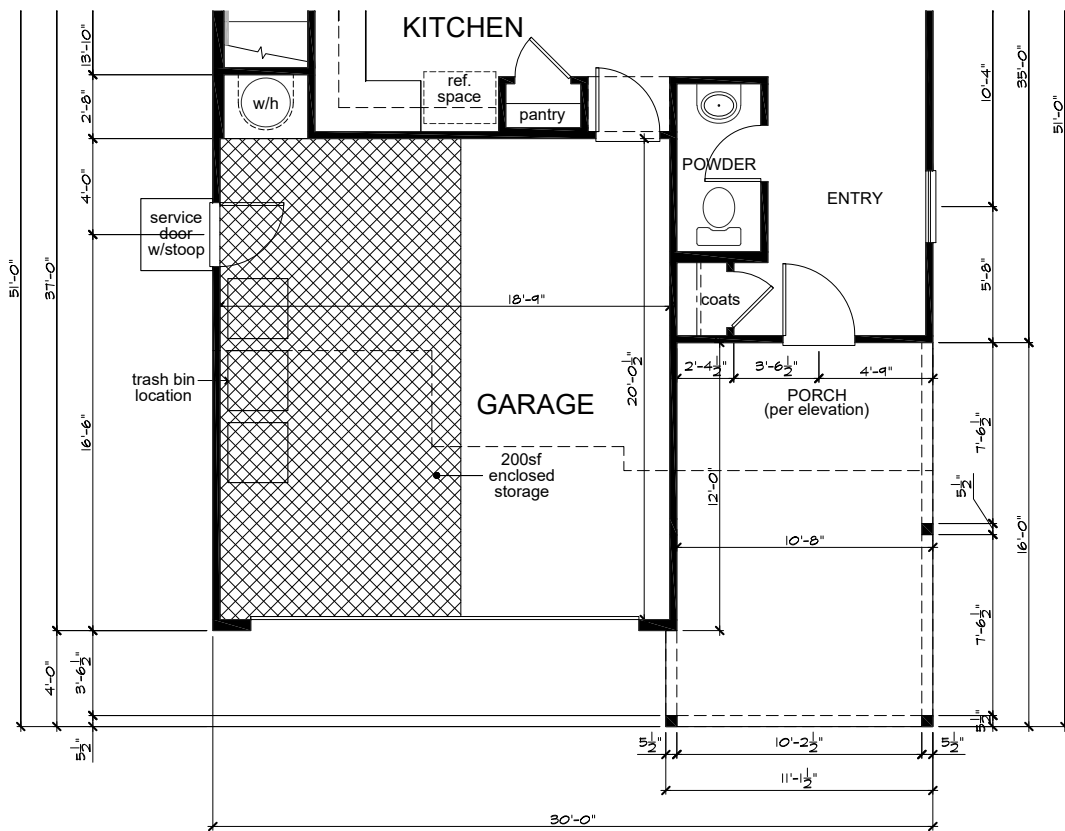




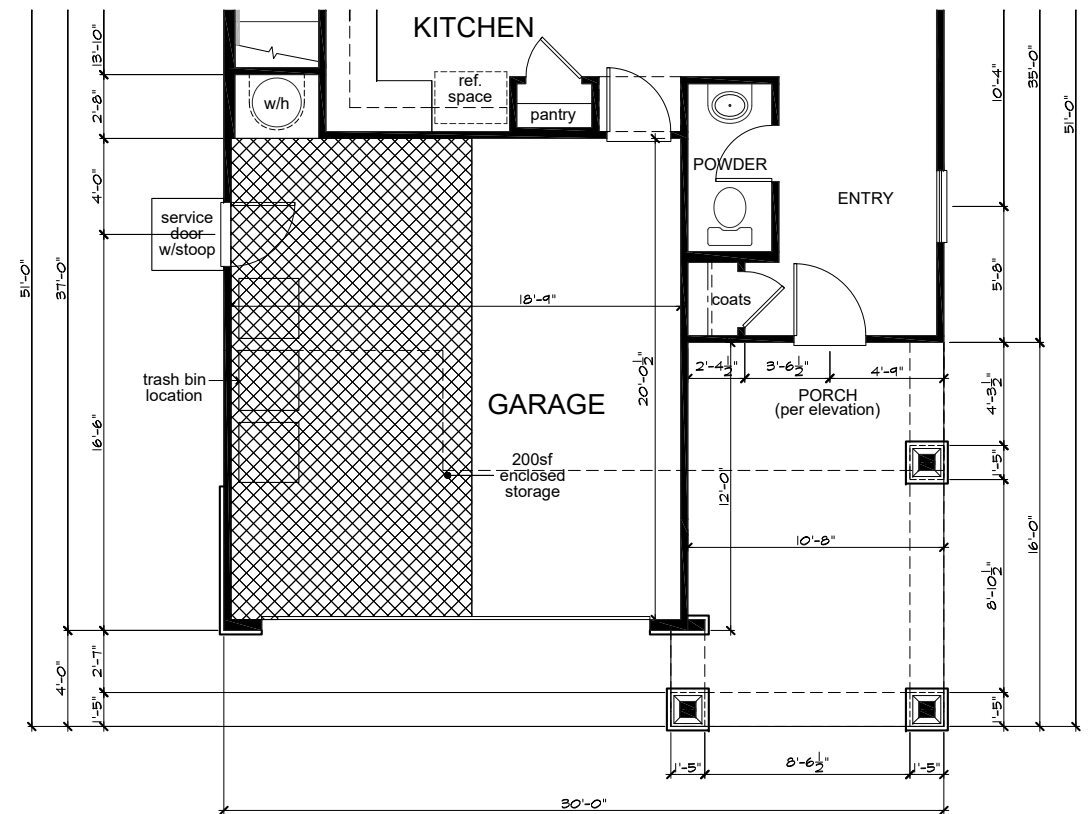
Second Floor Plan 'C'



Second Floor Plan 'B'



First Floor Plan 'C'



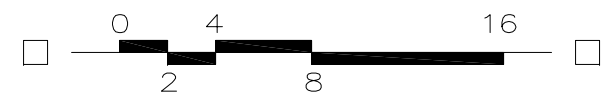
First Floor Plan 'B'



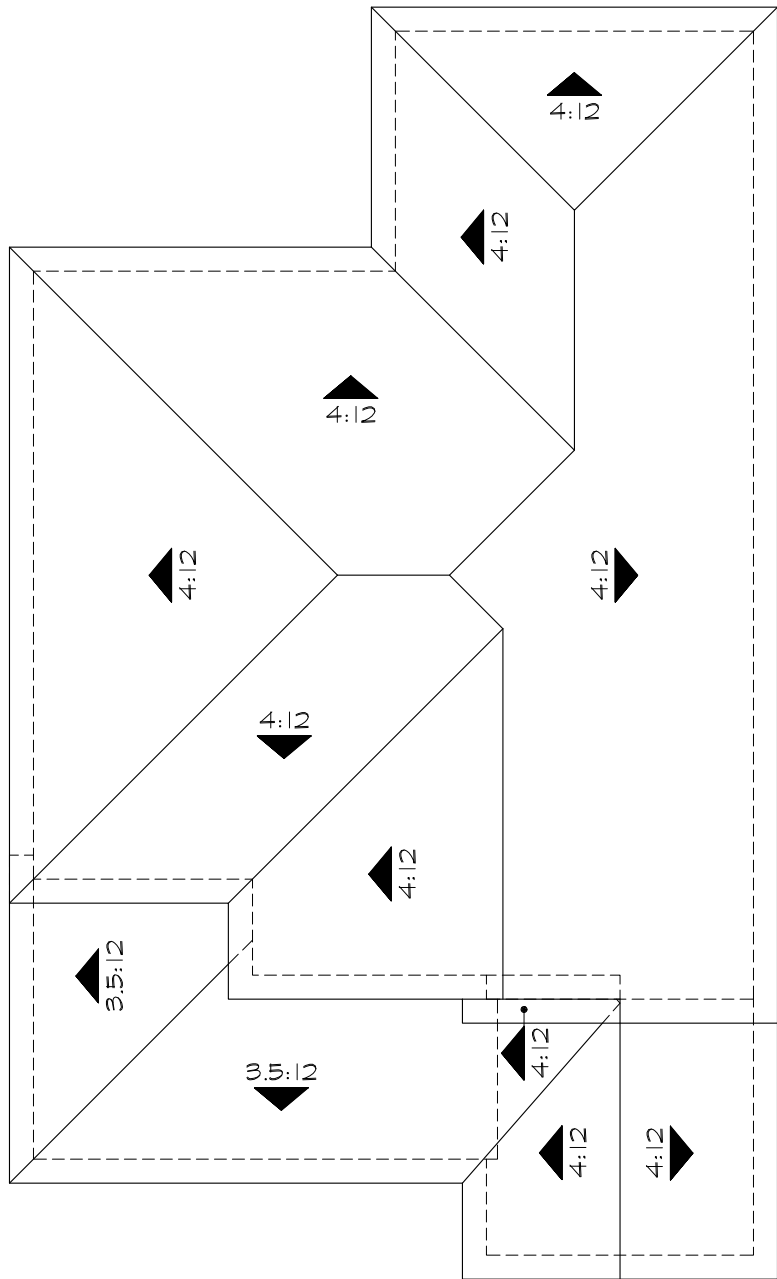
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ROLLINGWOOD

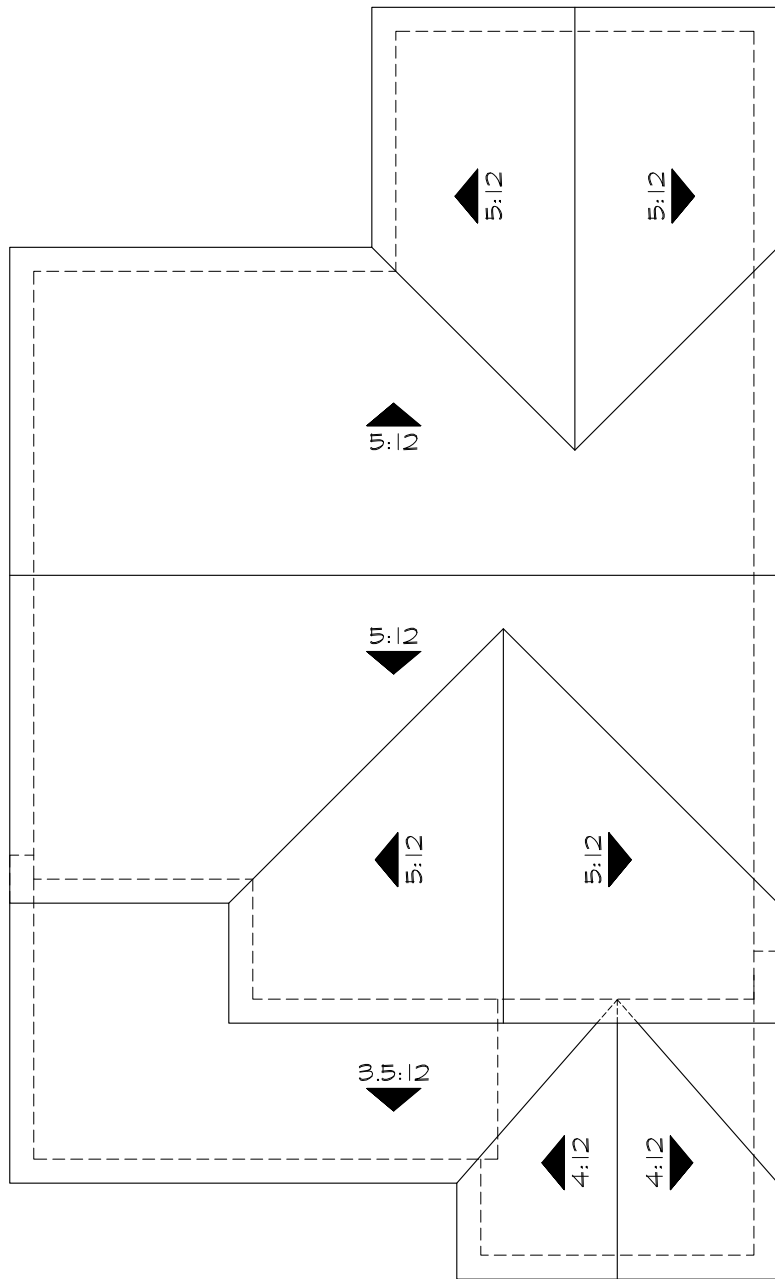


PLAN No. : 230.1664
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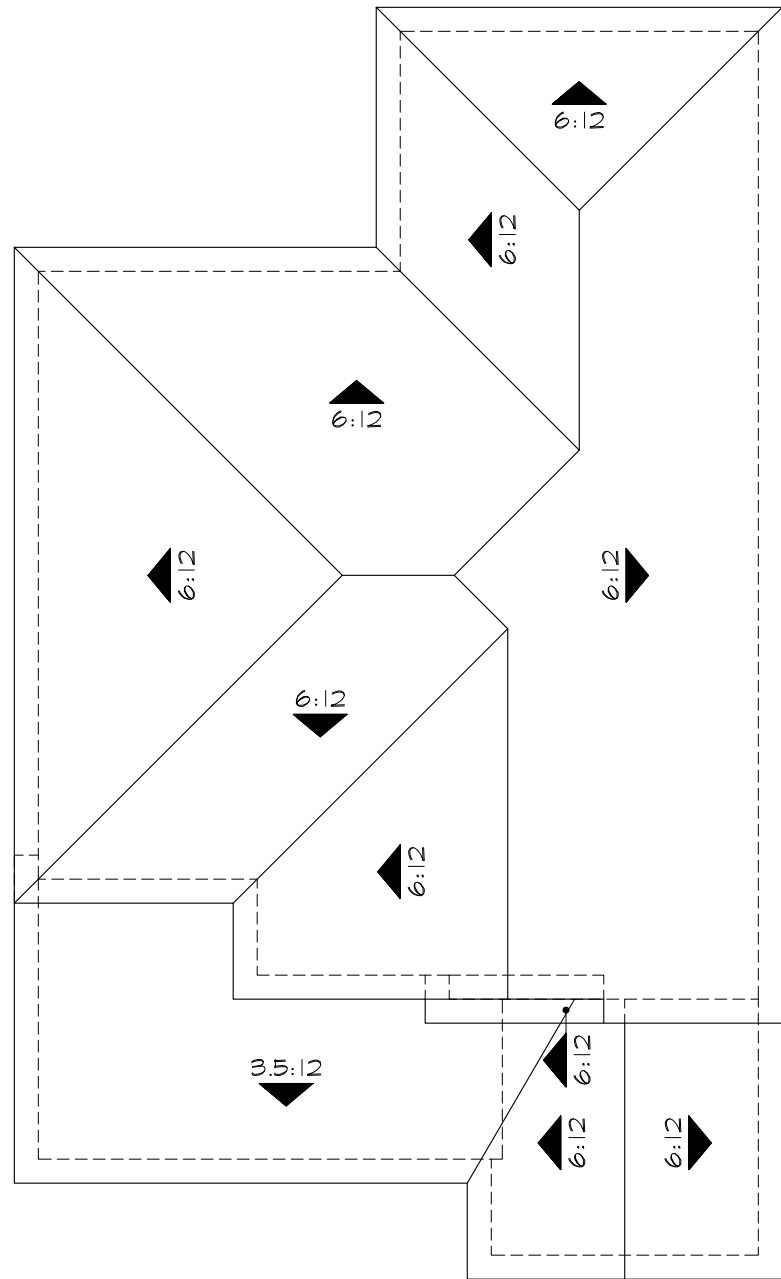
'A'

Roof Area: 1304 SF



'B'

Roof Area: 1305 SF



'C'

Roof Area: 1304 SF

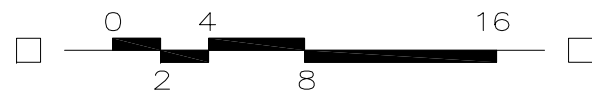
Roof Plans

ROLLINGWOOD

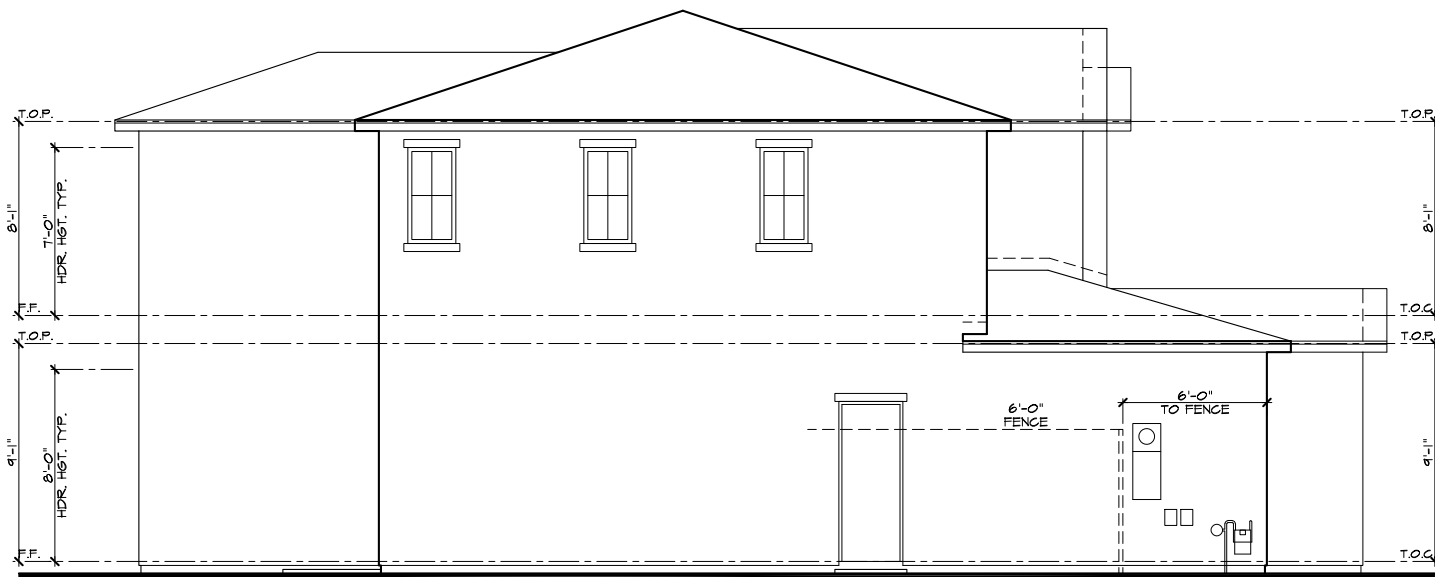


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Left Elevation 'A'



Front Elevation 'A' - Spanish

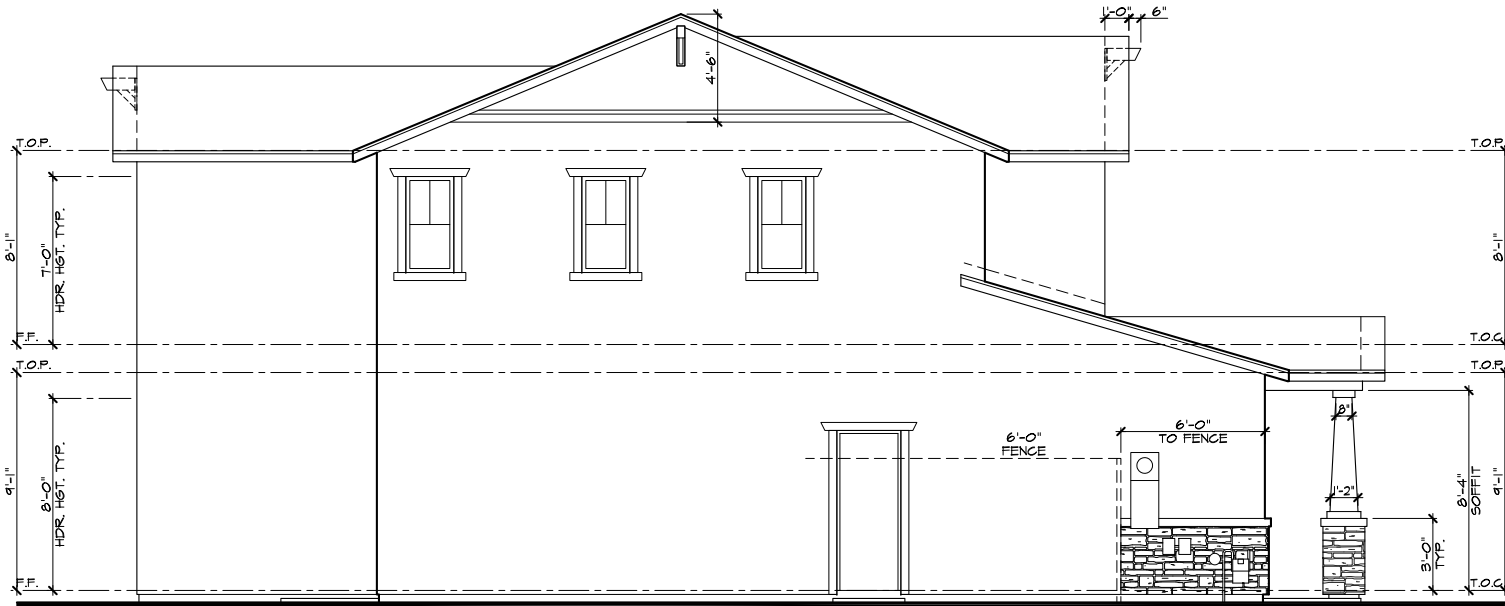


Right Elevation 'A'



Rear Elevation 'A'





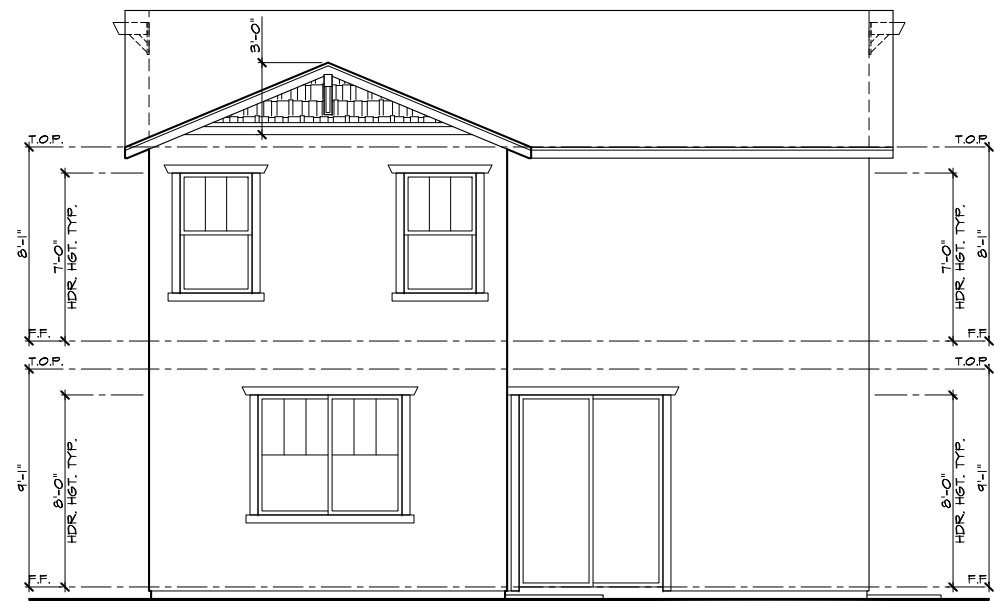
Left Elevation 'B'



Front Elevation 'B' - Craftsman



Right Elevation 'B'



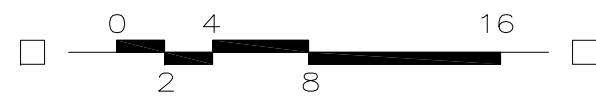
Rear Elevation 'B'



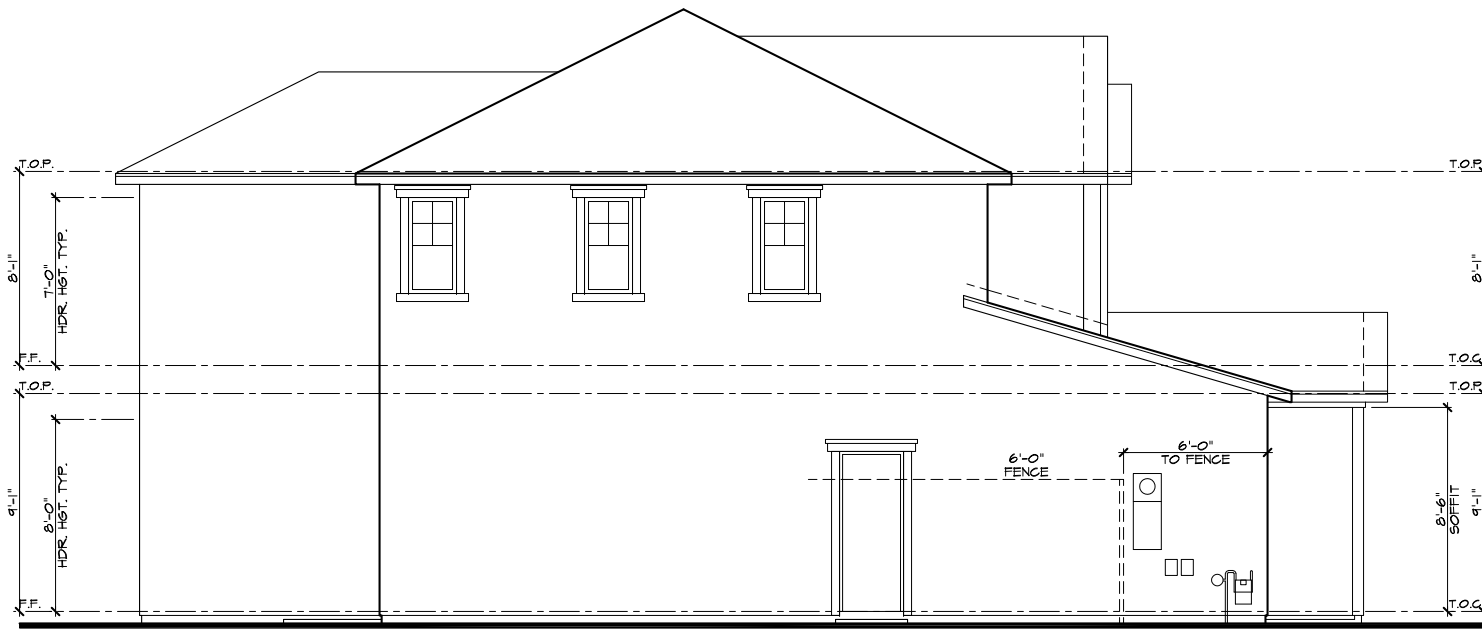
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Left Elevation 'C'



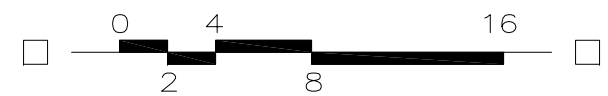
Front Elevation 'C' - Farmhouse

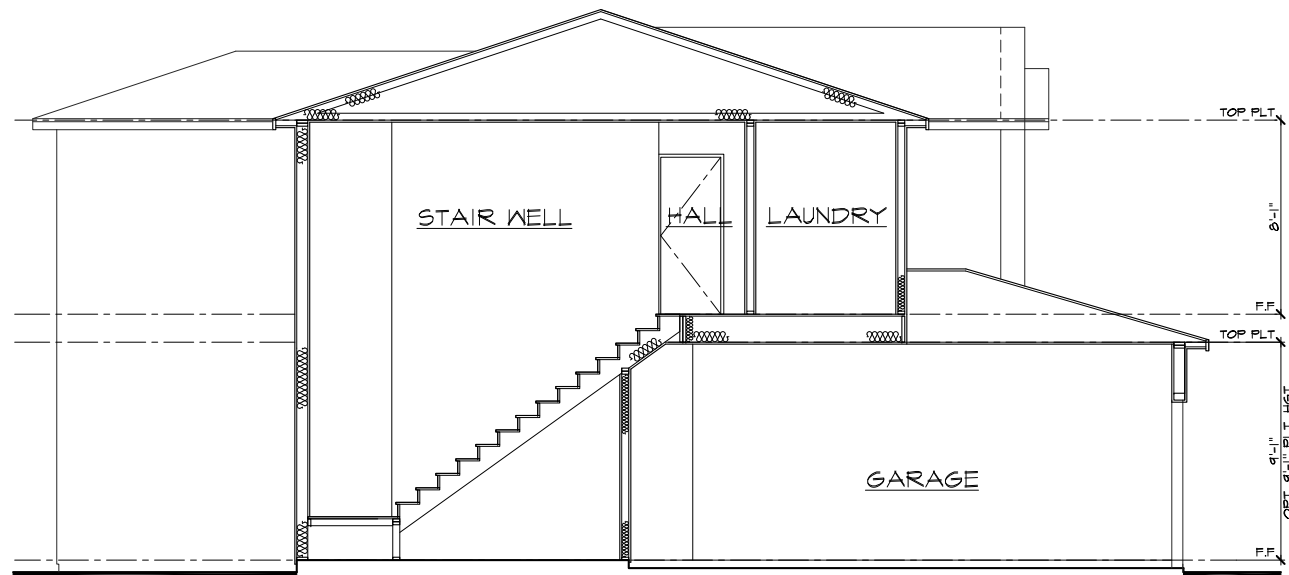


Right Elevation 'C'

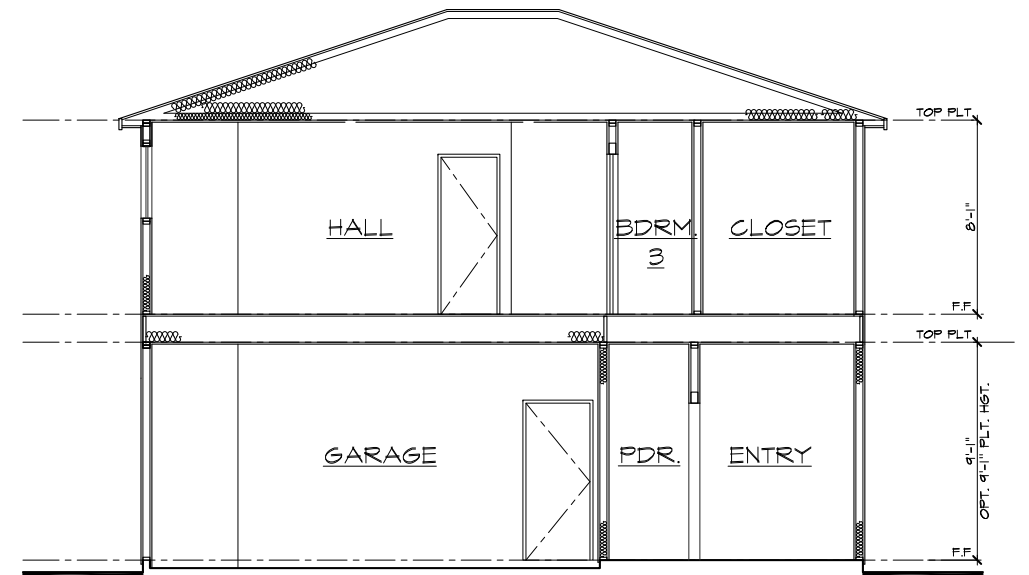


Rear Elevation 'C'





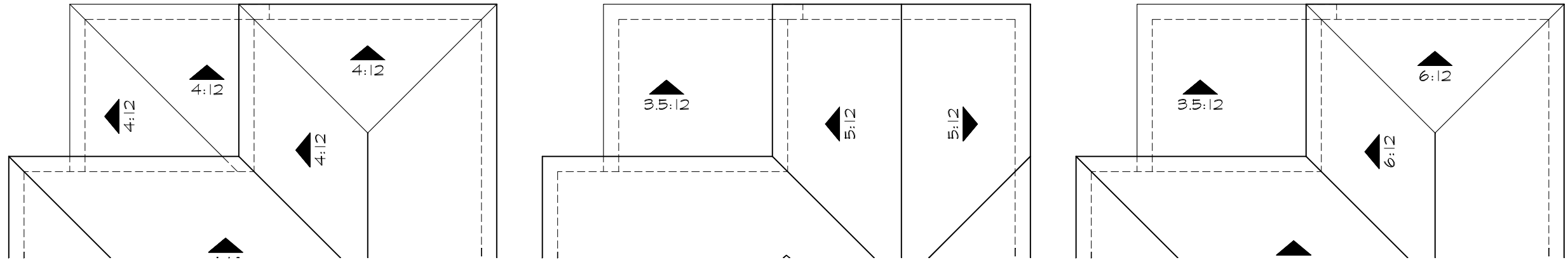
Section B



Section A

Building Sections Elevation 'A'



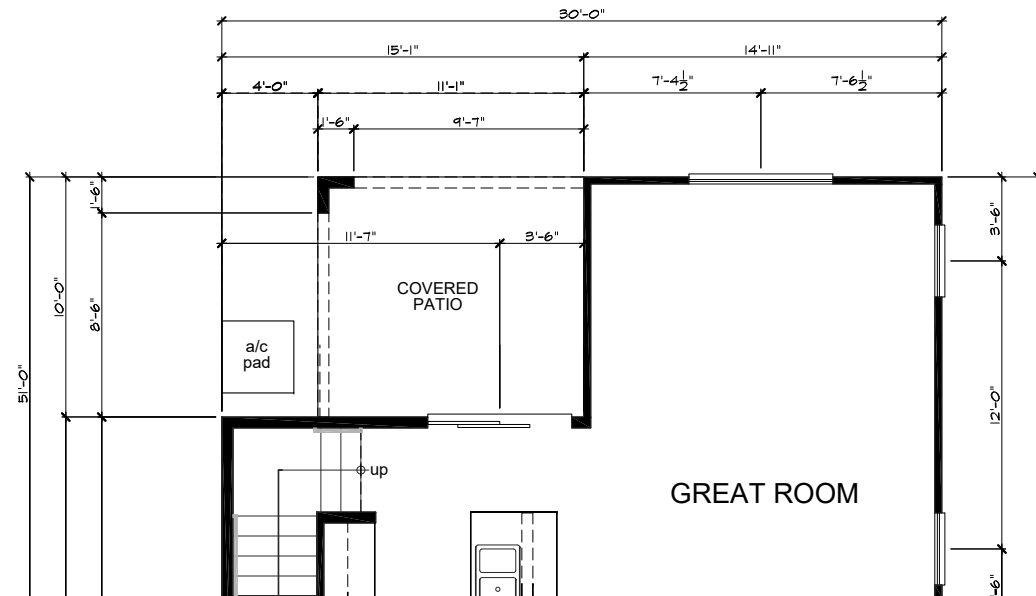


'A'

'B'

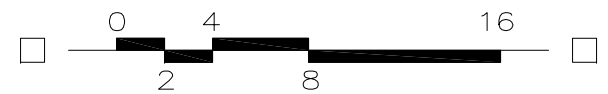
'C'

Roof Plans
at Covered Patio



Partial Floor Plan
at Covered Patio

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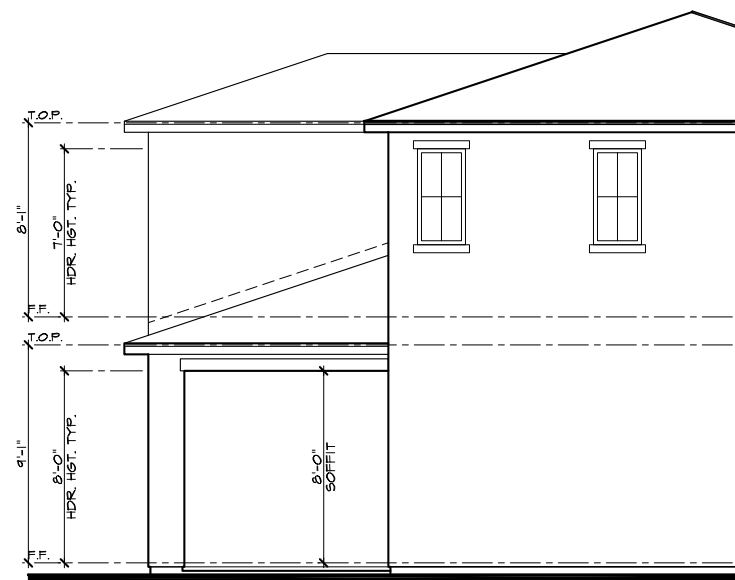


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Rear Elevation 'A'



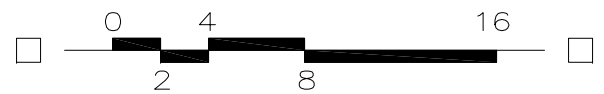
Partial Left Elevation 'A'

Elevations
at Covered Patio

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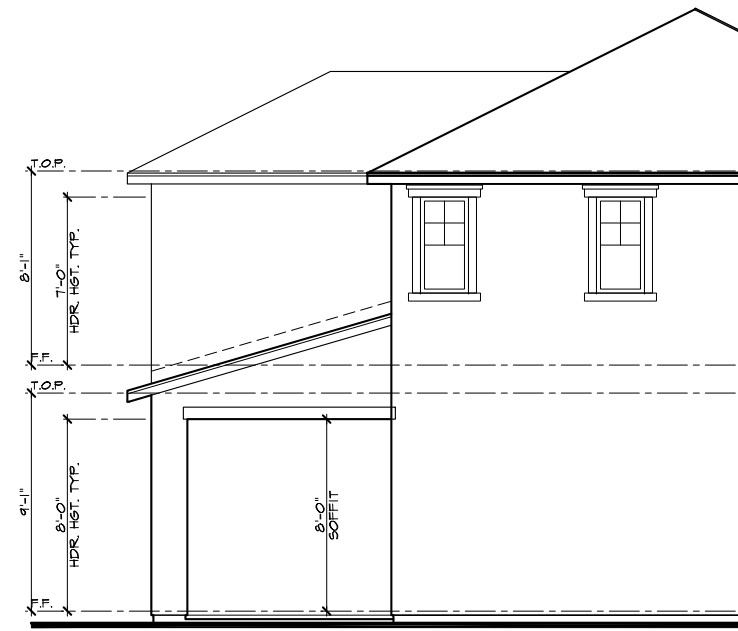
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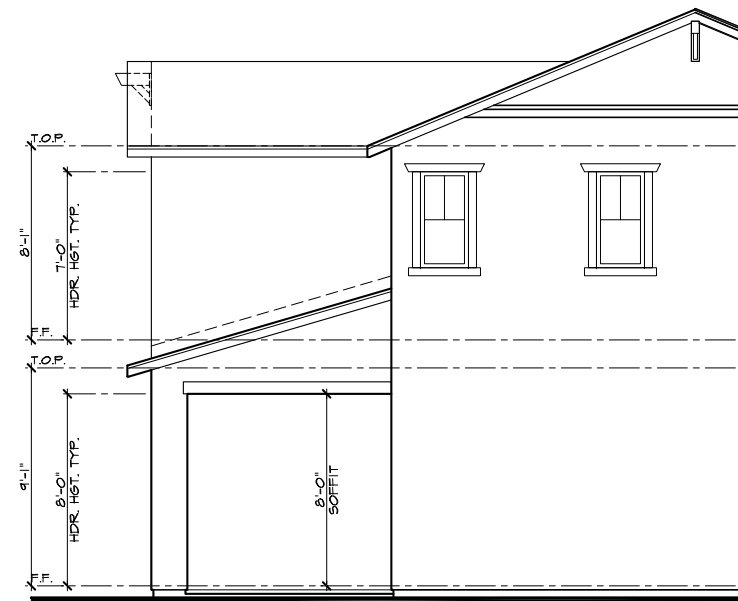
Rear Elevation 'C'



Partial Left Elevation 'C'



Rear Elevation 'B'



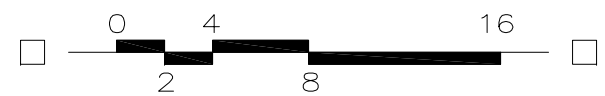
Partial Left Elevation 'B'

Elevations at Covered Patio



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JOB No. : 600153
STORY: Two Story
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ELEVATION LEGEND

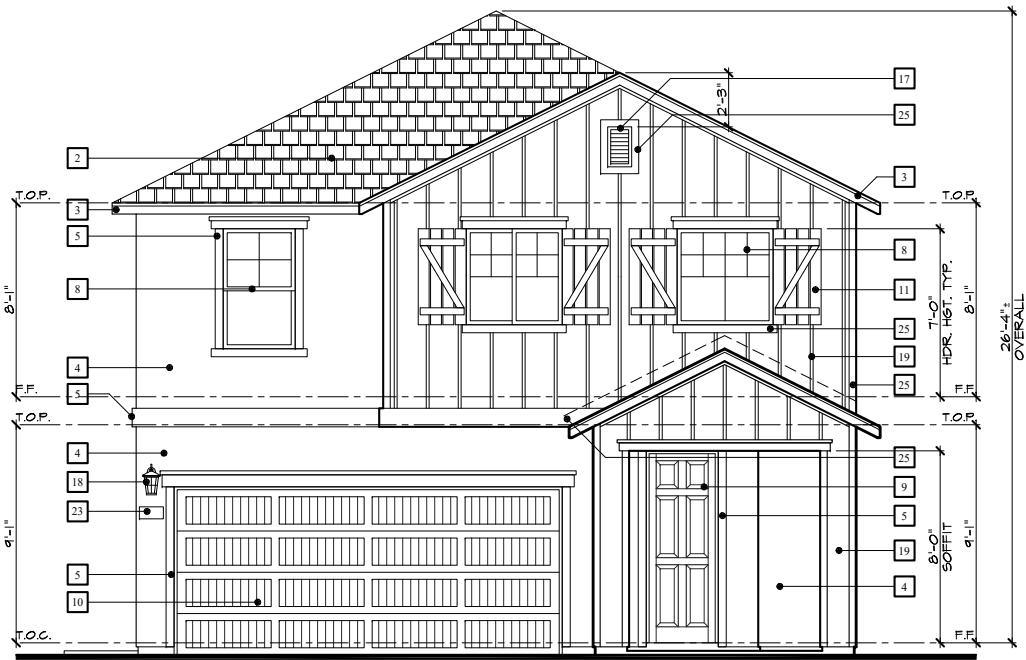
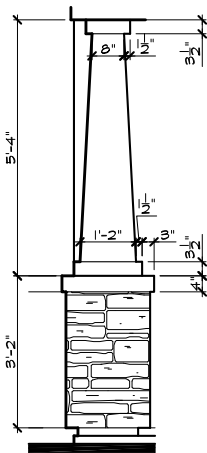
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- 2 CONCRETE FLAT TILE ROOFING
- 3 WOOD FASCIA BOARD
- 4 STUCCO FINISH
- 5 STUCCO OVER FOAM TRIM
- 6 STUCCO OVER FOAM CORBELS
- 7 DECORATIVE STUCCO COLUMNS (STUCCO OVER WOOD FRAMING)
- 8 PRE-FAB WINDOW SYSTEM
- 9 COMPOSITE ENTRY DOOR
- 10 METAL ROLL-UP GARAGE DOOR
- 11 DECORATIVE SHUTTERS
- 12 STUCCO OVER SHAPED FOAM TRIM
- 13 DECORATIVE STUCCO RECESS
- 14 CEMENT FIBER SIDING
- 15 DECORATIVE CLAY PIPE
- 16 STONE VENEER
- 17 DECORATIVE FOAM VENTS
- 18 COACH LIGHT
- 19 DECORATIVE BOARD & BATTEN
- 20 WOOD POST
- 21 BRICK VENEER
- 22 FIBER CEMENT CORBEL
- 23 ILLUMINATED ADDRESS SIGN
- 24 DECORATIVE OUTLOOKER WITH KNEEBRACE
- 25 FIBER CEMENT TRIM



Elevation 'A' - Spanish



Elevation 'B' - Craftsman



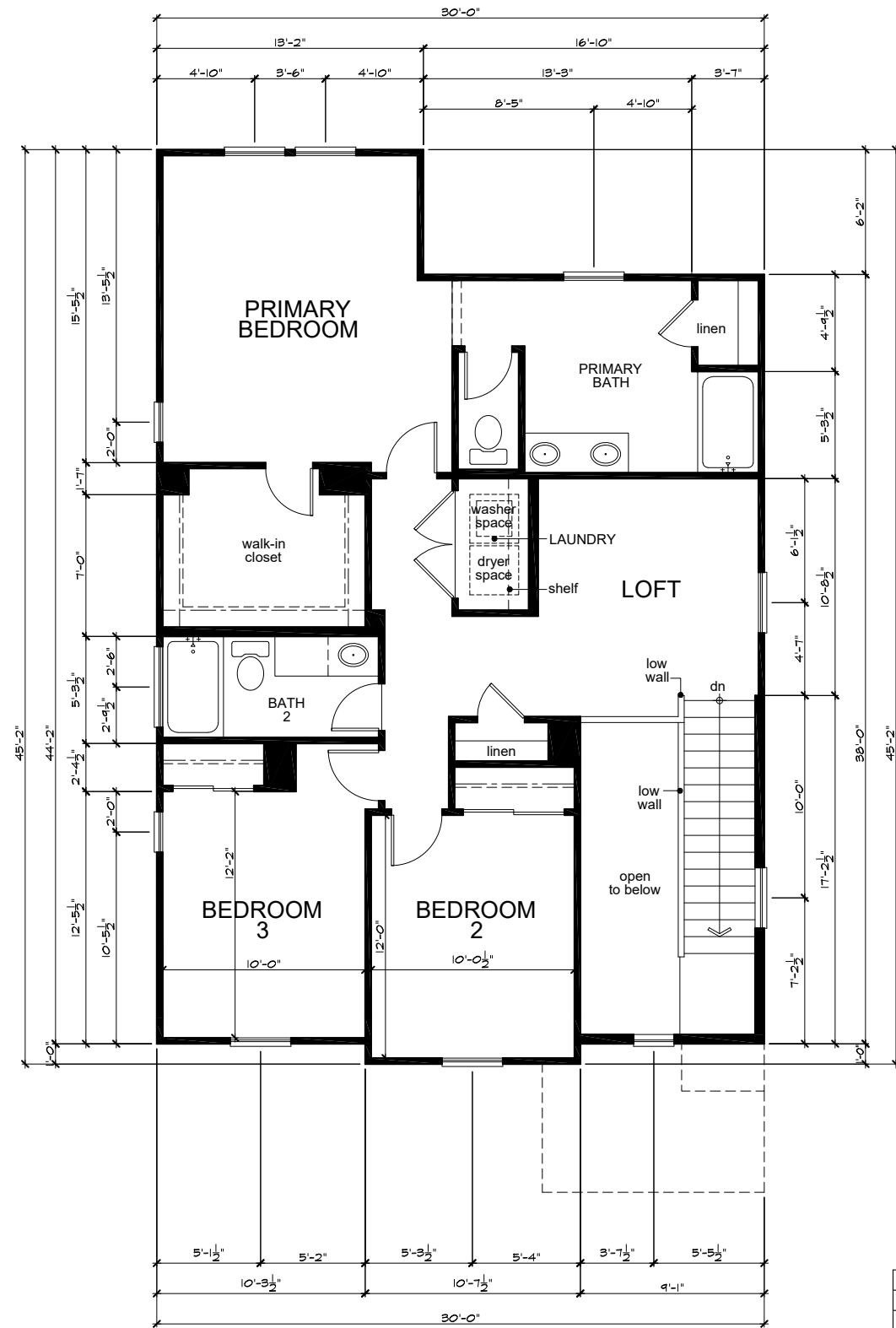
Elevation 'C' - Farmhouse



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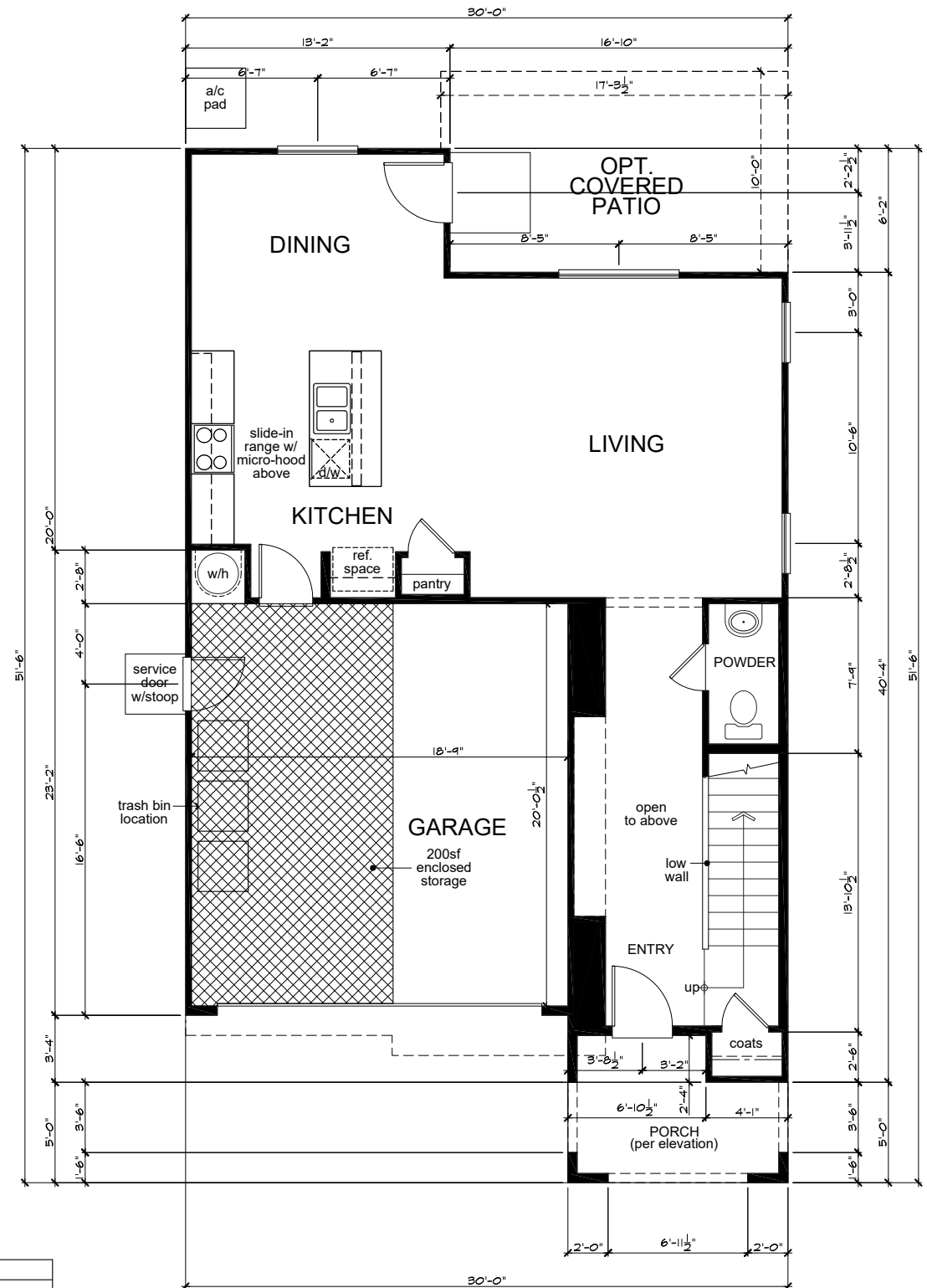
ROLLINGWOOD





Second Floor Plan 'A'

SQUARE FOOTAGE				
PLAN 230.1870				
	'A'	'B'	'C'	SQ. FT.
FIRST FLOOR AREA	807	807	807	SQ. FT.
SECOND FLOOR AREA	1083	1083	1083	SQ. FT.
TOTAL AREA	1891	1870	1870	SQ. FT.
GARAGE AREA	404	404	404	SQ. FT.
PORCH AREA	71	71	71	SQ. FT.
OPTIONS:				
COVERED PATIO	170	170	170	SQ. FT.

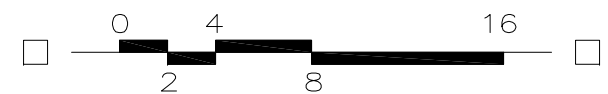


First Floor Plan 'A'

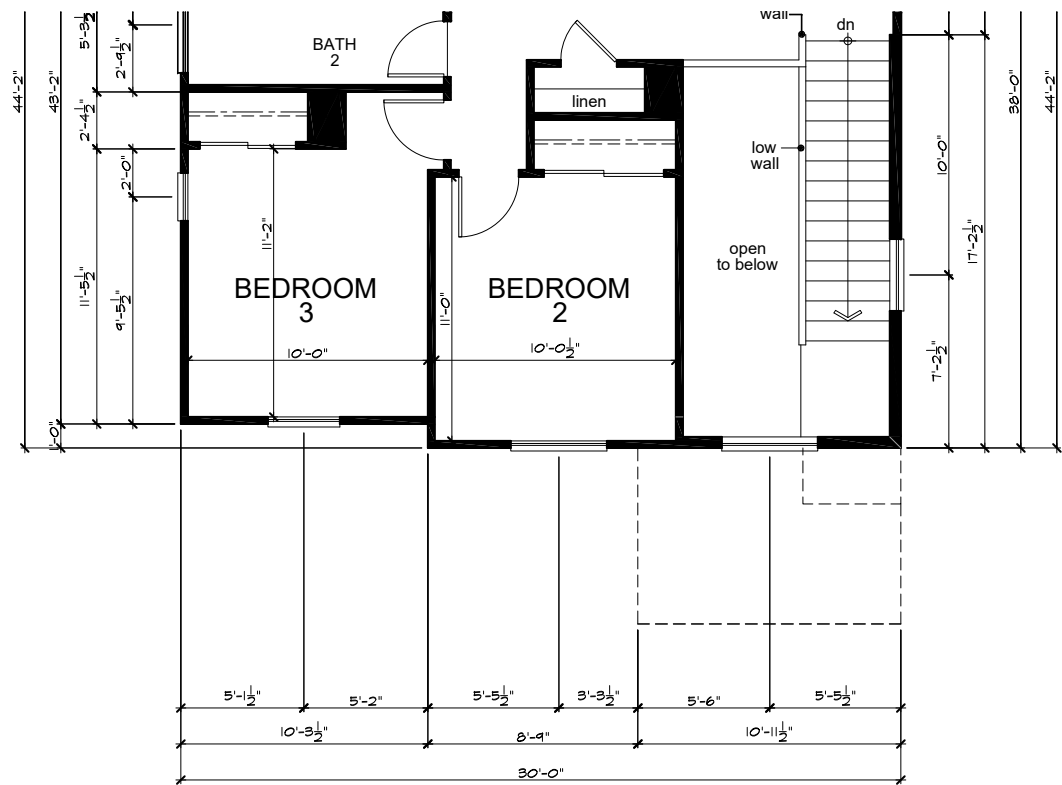


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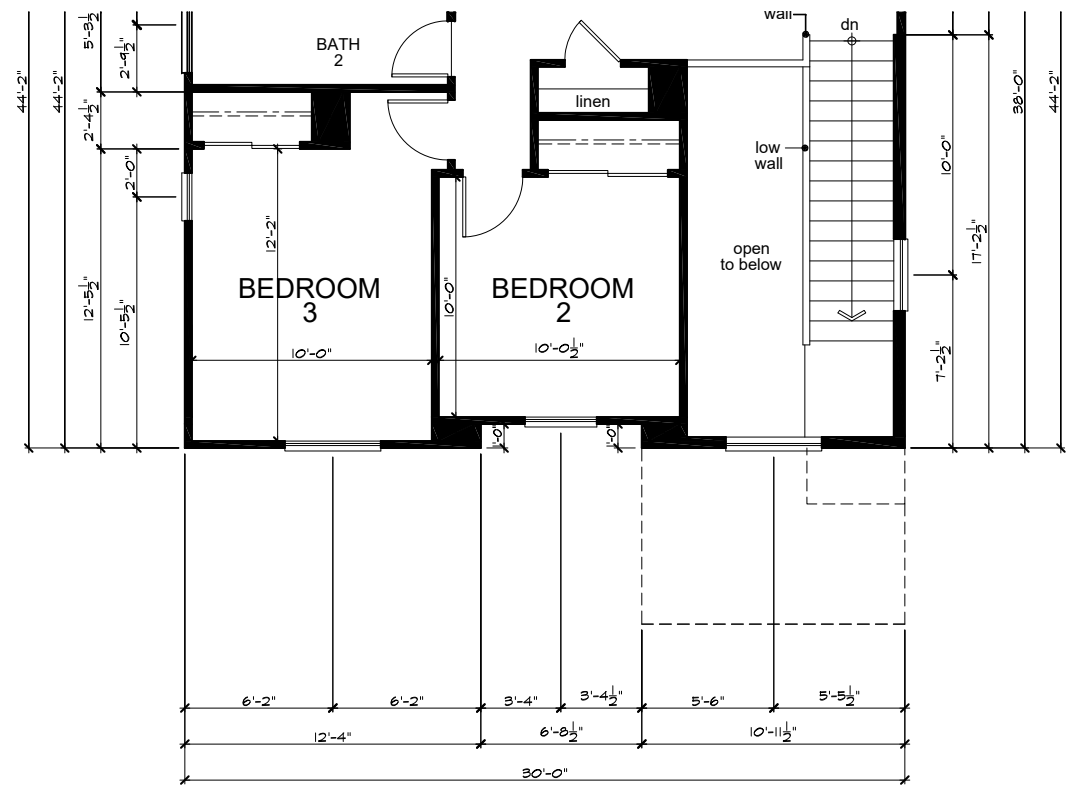
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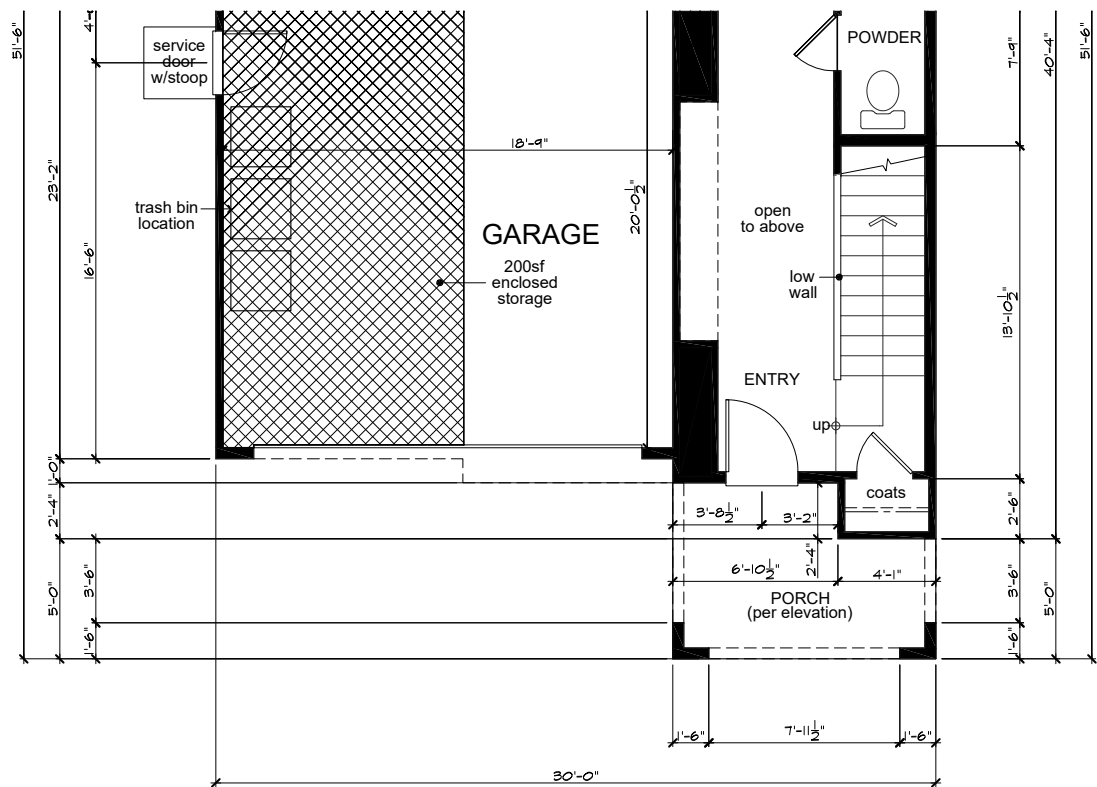
PLAN No. : 230.1870
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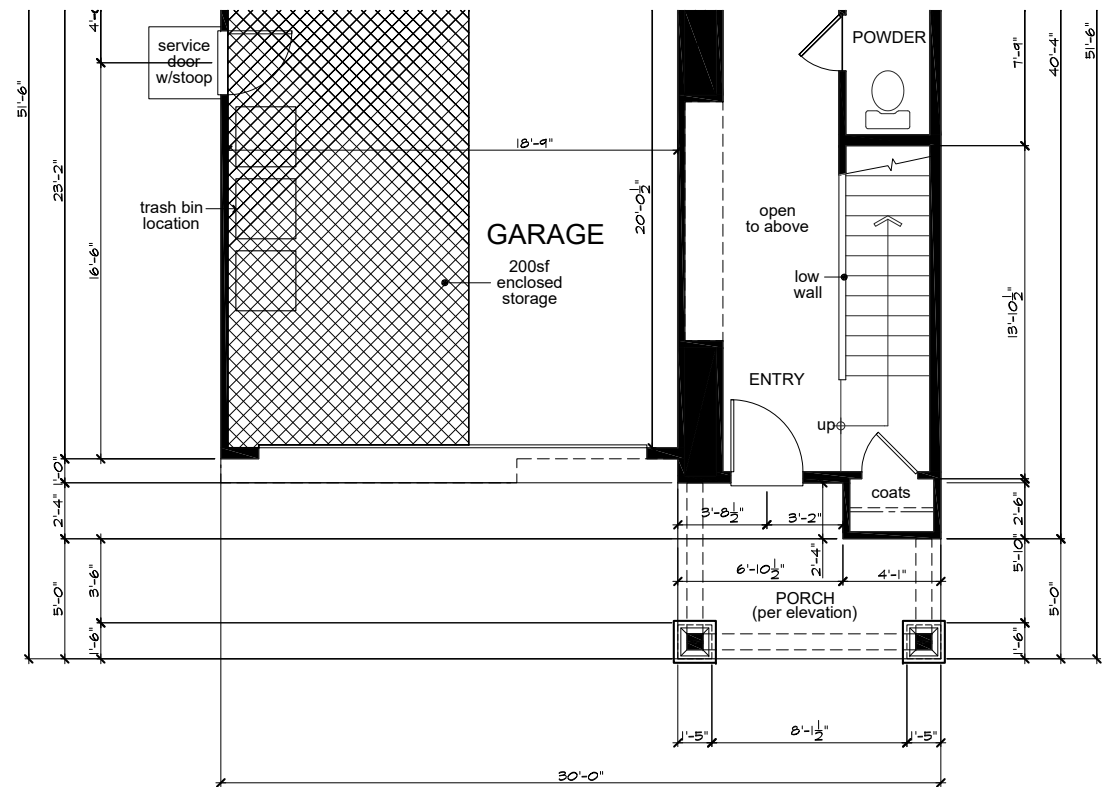
Second Floor Plan 'C'



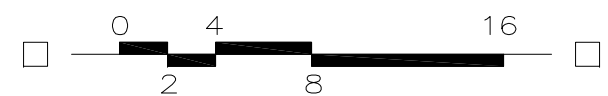
Second Floor Plan 'B'

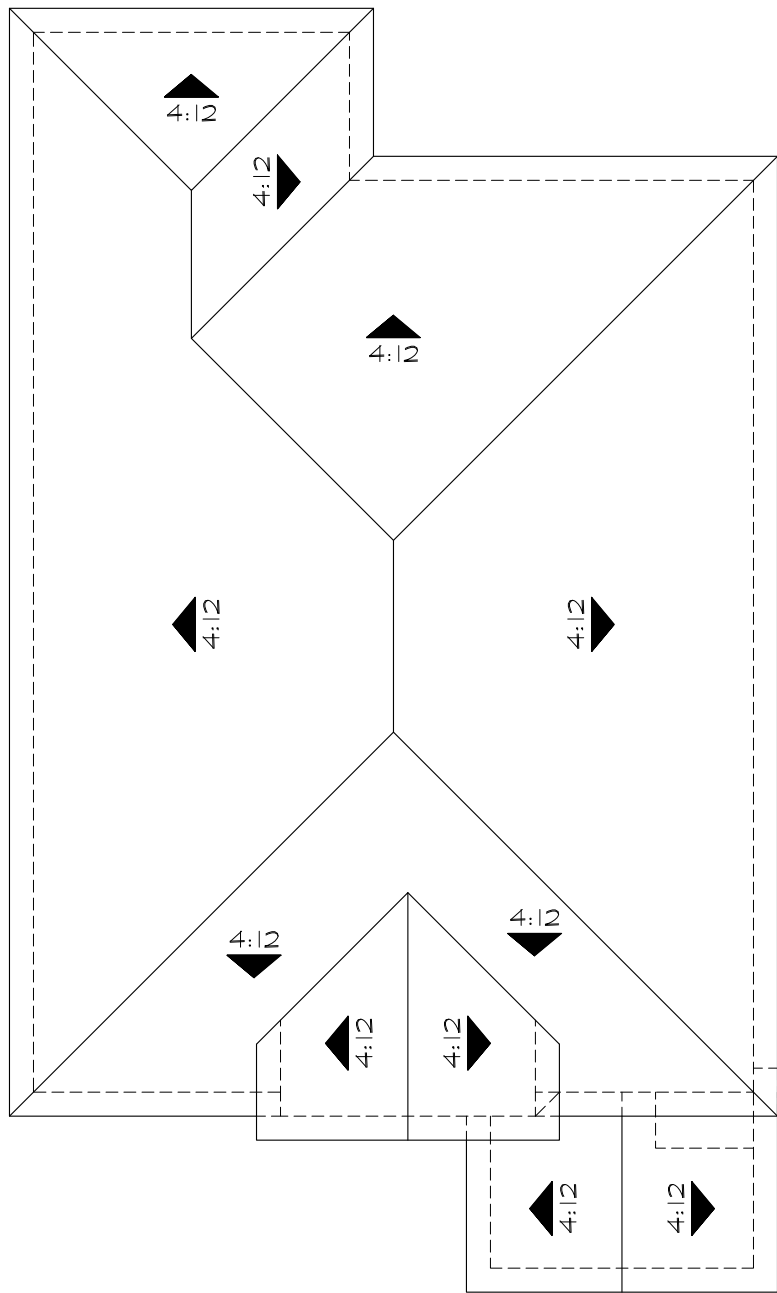


First Floor Plan 'C'

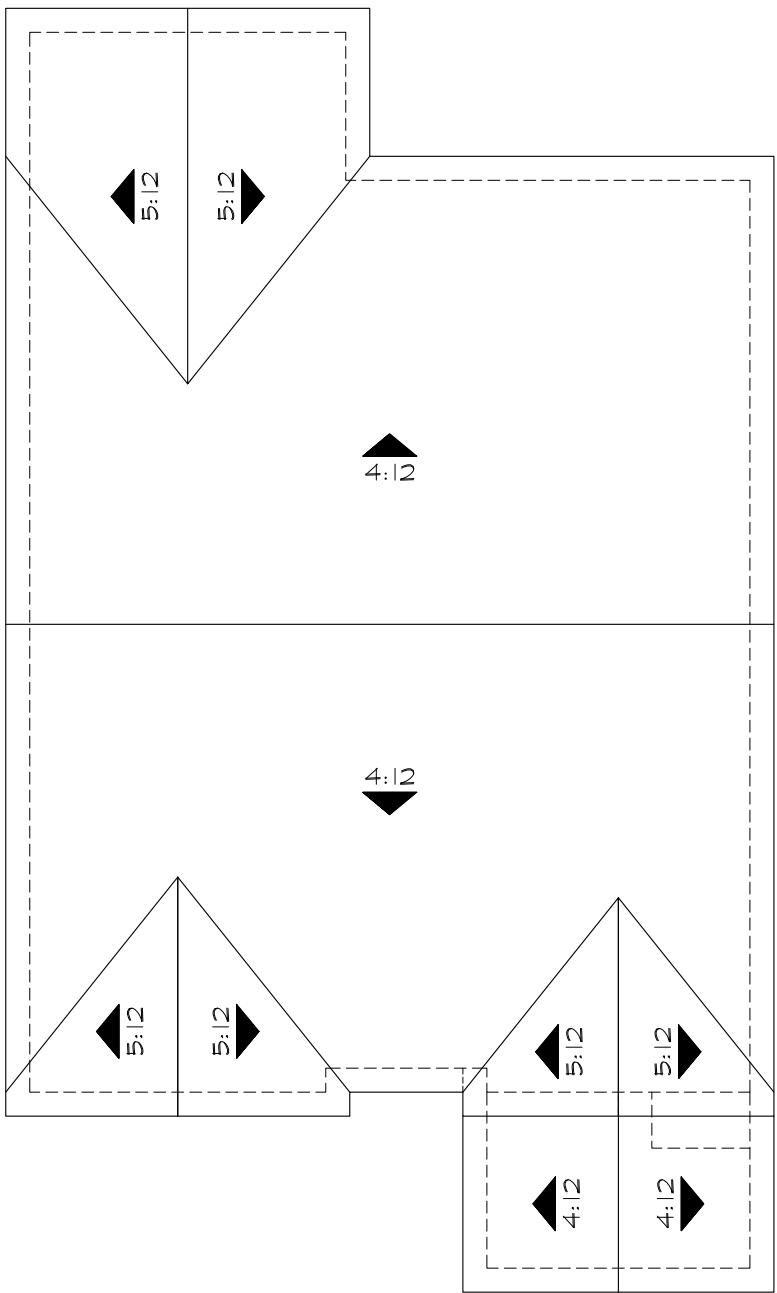


First Floor Plan 'B'

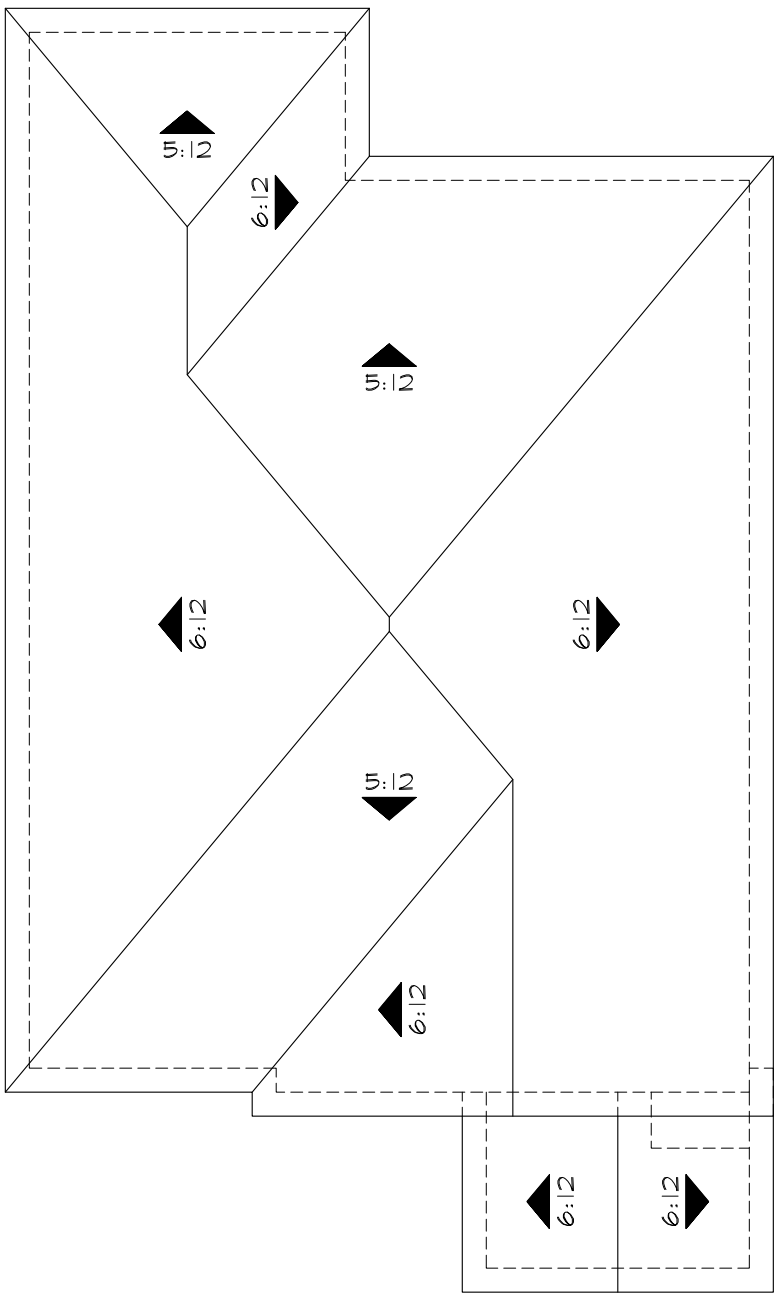




'A'
Roof Area: 1310 SF



'B'
Roof Area: 1295 SF



'C'
Roof Area: 1291 SF

Roof Plans

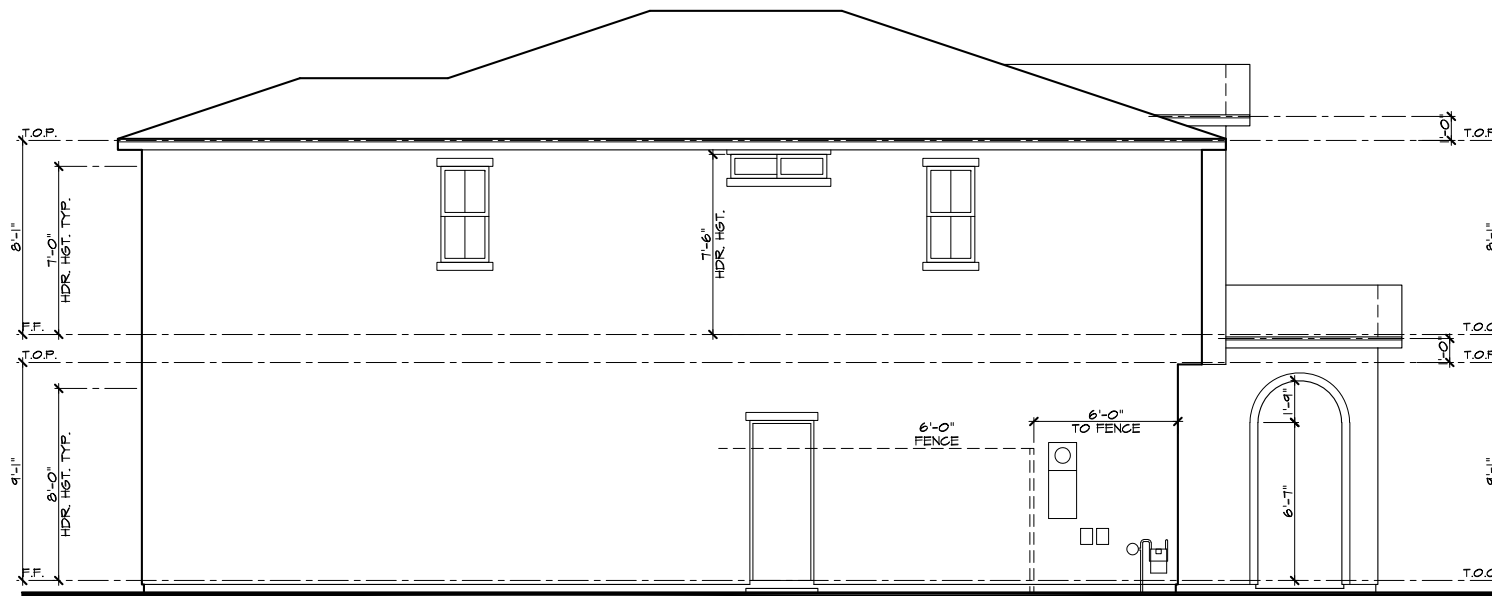
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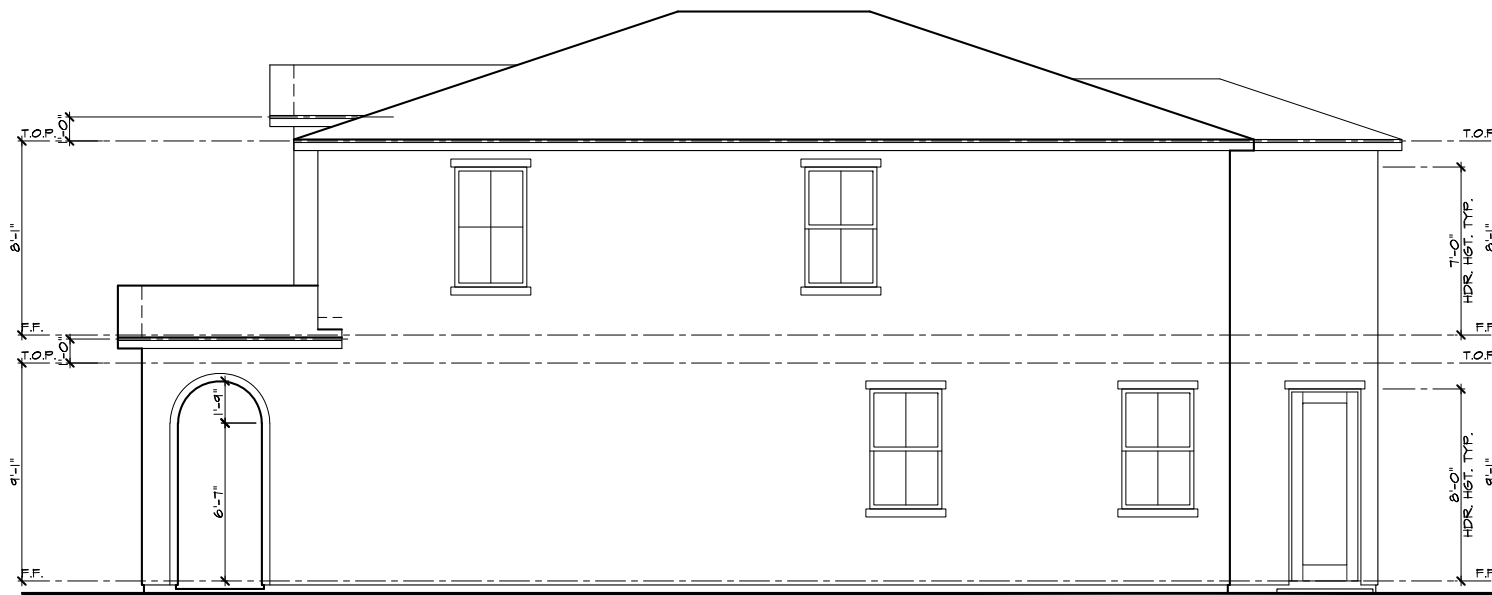
PLAN No. : 230.1870
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Left Elevation 'A'



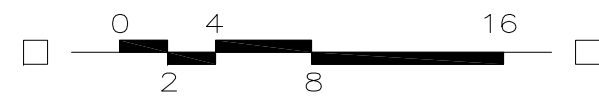
Front Elevation 'A' - Spanish

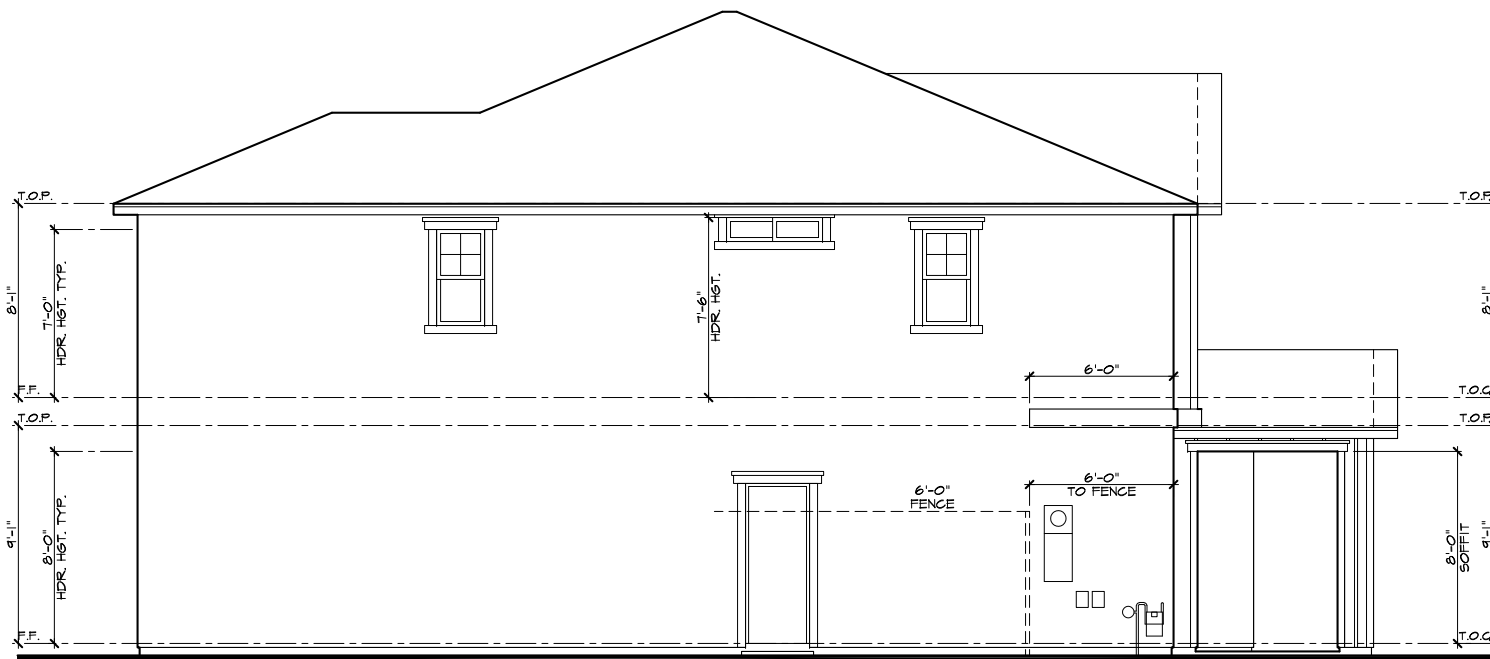


Right Elevation 'A'



Rear Elevation 'A'





Left Elevation 'C'



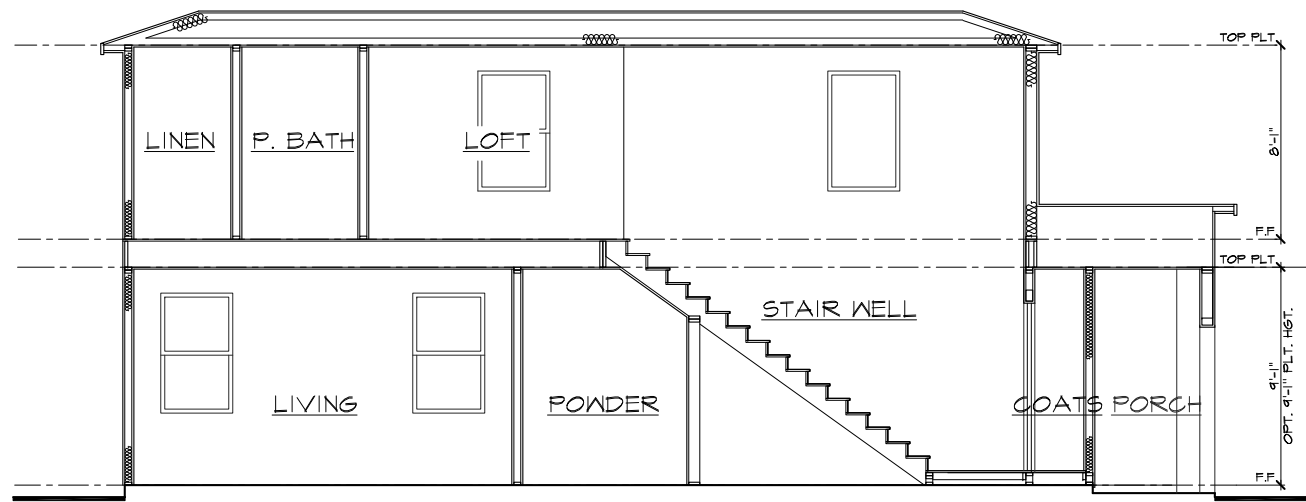
Right Elevation 'C'



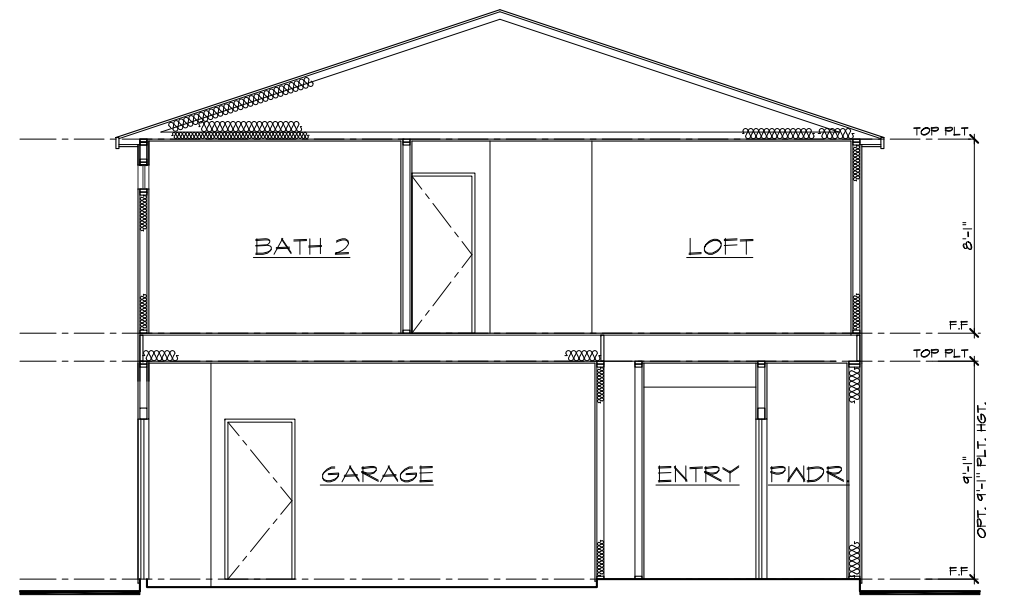
Front Elevation 'C' - Farmhouse



Rear Elevation 'C'



Section B



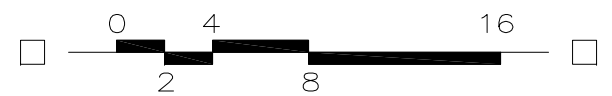
Section A

Building Sections Elevation 'A'

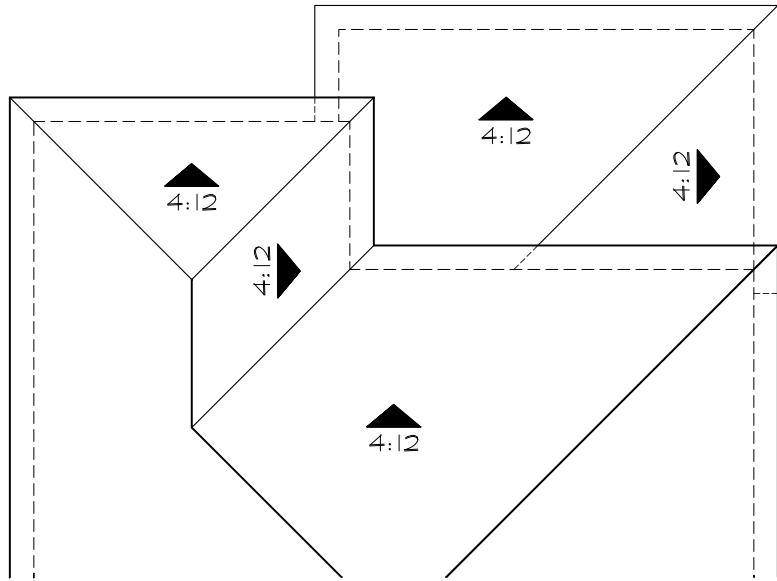


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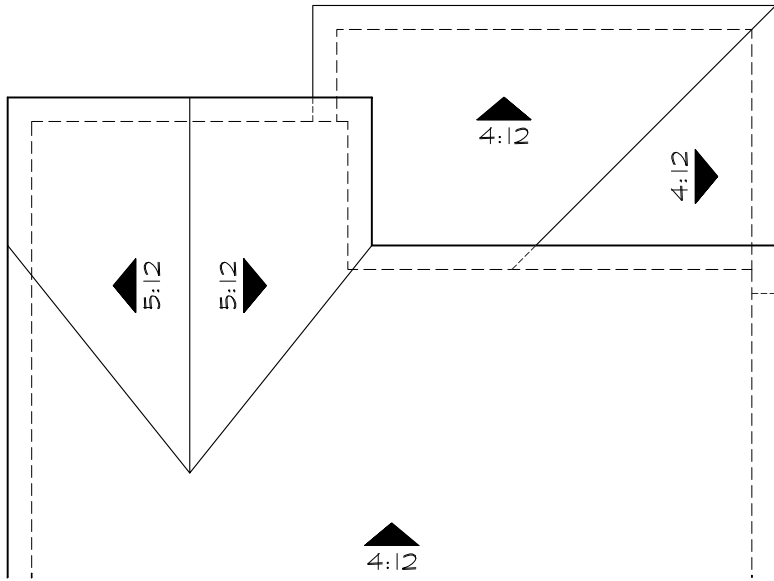
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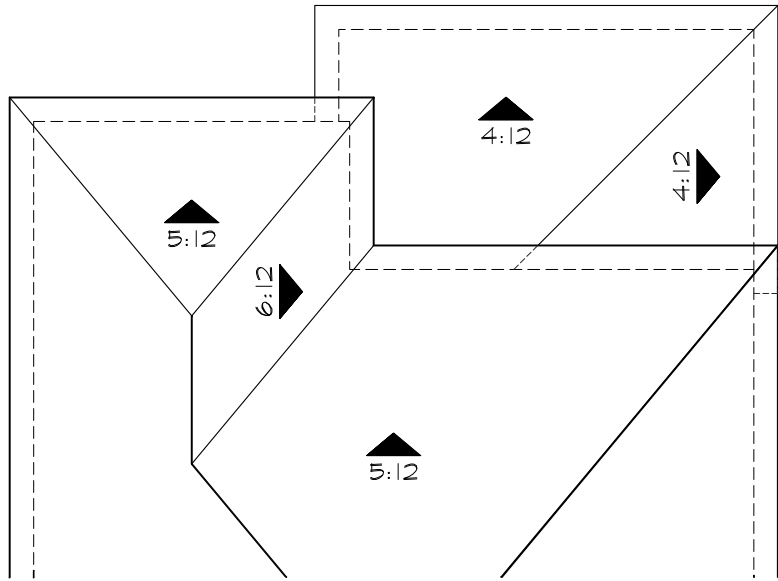
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'A'

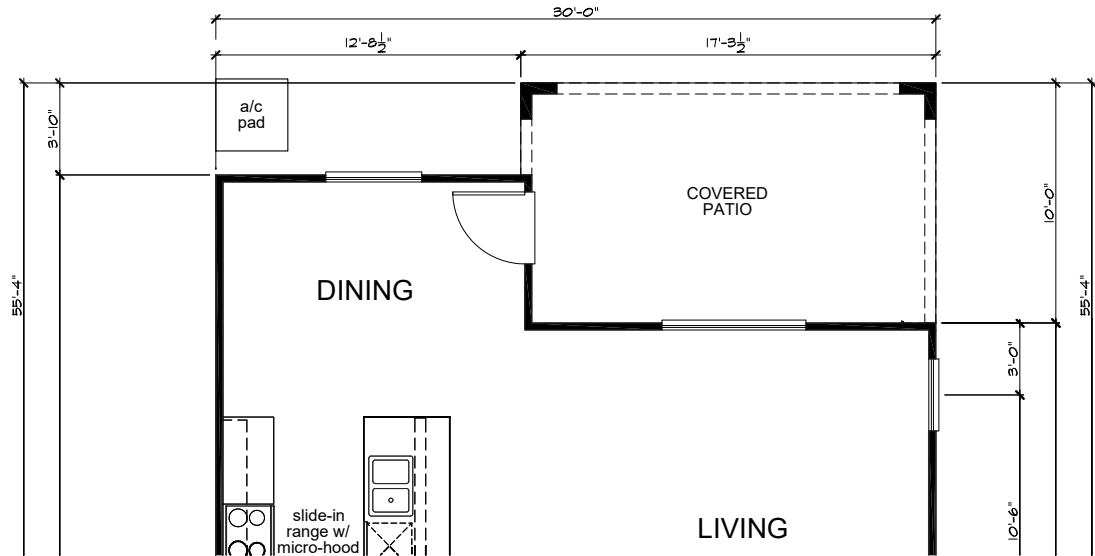


'B'



'C'

Roof Plans
at Covered Patio



Partial Floor Plan
at Covered Patio

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Rear Elevation 'A'



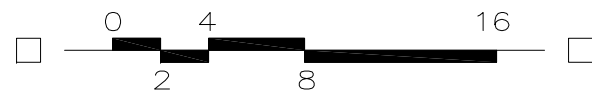
Partial Right Elevation 'A'

Elevations
at Covered Patio

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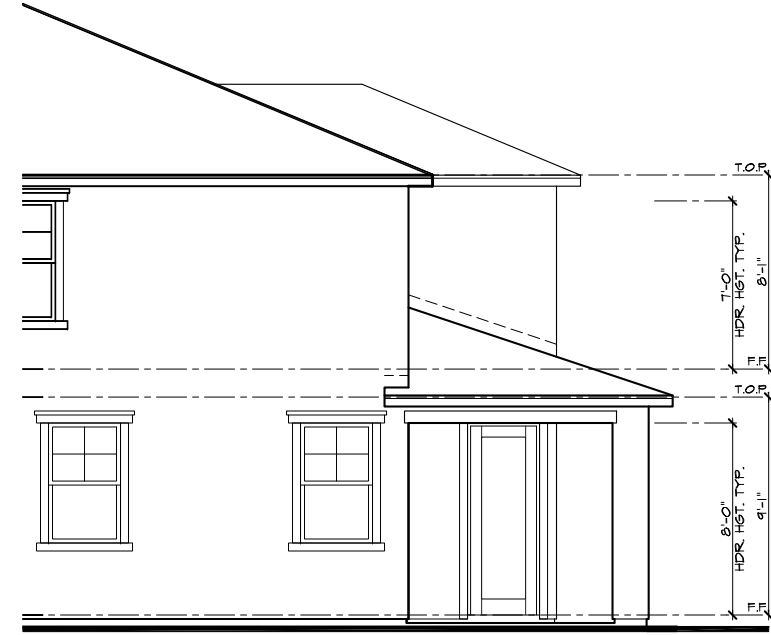
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STORY: Two Story
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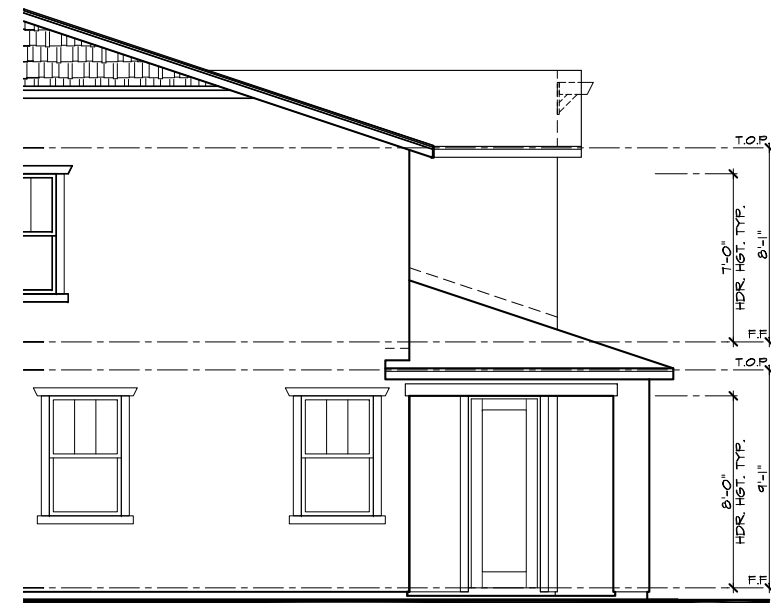
Rear Elevation 'C'



Partial Right Elevation 'C'



Rear Elevation 'B'



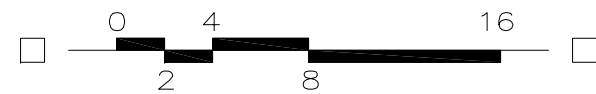
Partial Right Elevation 'B'

Elevations
at Covered Patio

ROLLINGWOOD



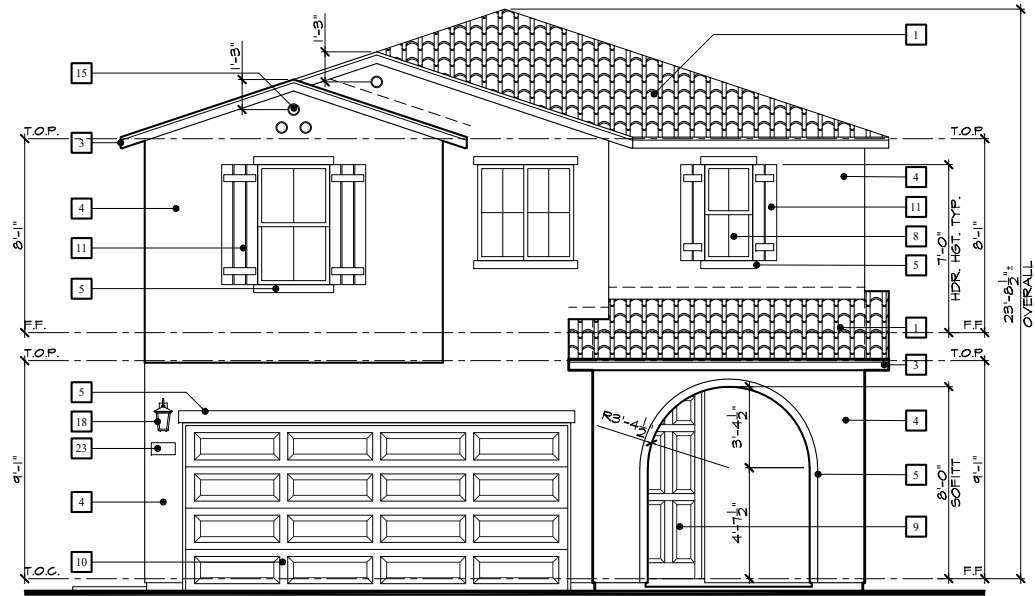
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PLAN No. : 230.1870
JOB No. : 600153
STORY: Two Story
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ELEVATION LEGEND

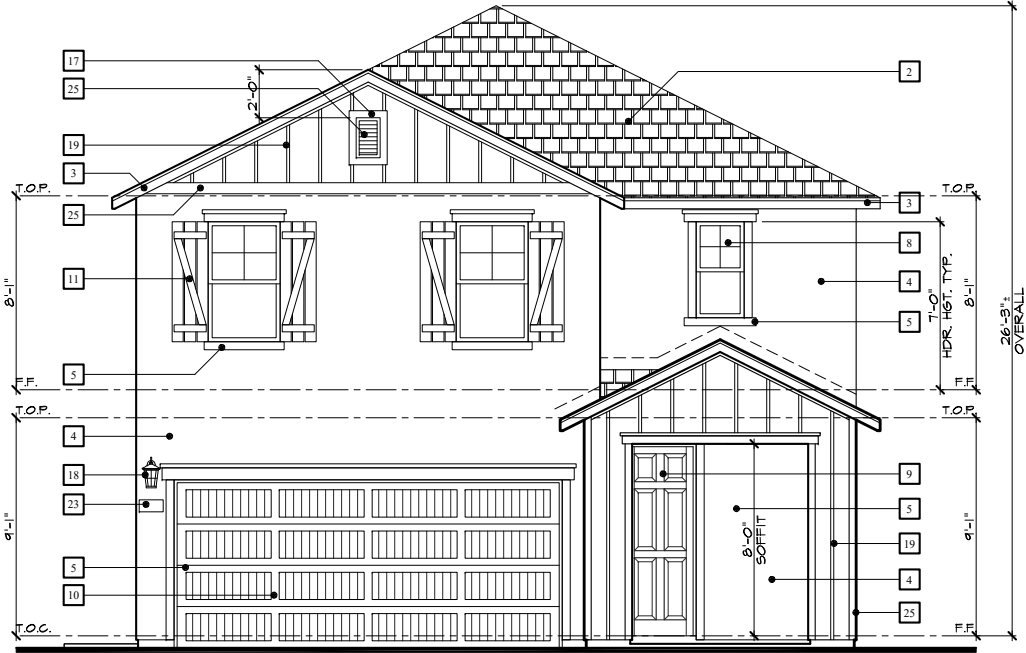
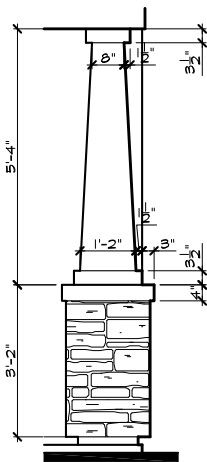
- 1 CONCRETE 'S' TILE ROOFING
- 2 CONCRETE FLAT TILE ROOFING
- 3 WOOD FASCIA BOARD
- 4 STUCCO FINISH
- 5 STUCCO OVER FOAM TRIM
- 6 STUCCO OVER FOAM CORBELS
- 7 DECORATIVE STUCCO COLUMNS (STUCCO OVER WOOD FRAMING)
- 8 PRE-FAB WINDOW SYSTEM
- 9 COMPOSITE ENTRY DOOR
- 10 METAL ROLL-UP GARAGE DOOR
- 11 DECORATIVE SHUTTERS
- 12 STUCCO OVER SHAPED FOAM TRIM
- 13 DECORATIVE STUCCO RECESS
- 14 CEMENT FIBER SIDING
- 15 DECORATIVE CLAY PIPE
- 16 STONE VENEER
- 17 DECORATIVE FOAM VENTS
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- 20 WOOD POST
- 21 BRICK VENEER
- 22 FIBER CEMENT CORBEL
- 23 ILLUMINATED ADDRESS SIGN
- 24 DECORATIVE OUTLOOKER WITH KNEEBRACE
- 25 FIBER CEMENT TRIM



Elevation 'A' - Spanish



Elevation 'B' - Craftsman



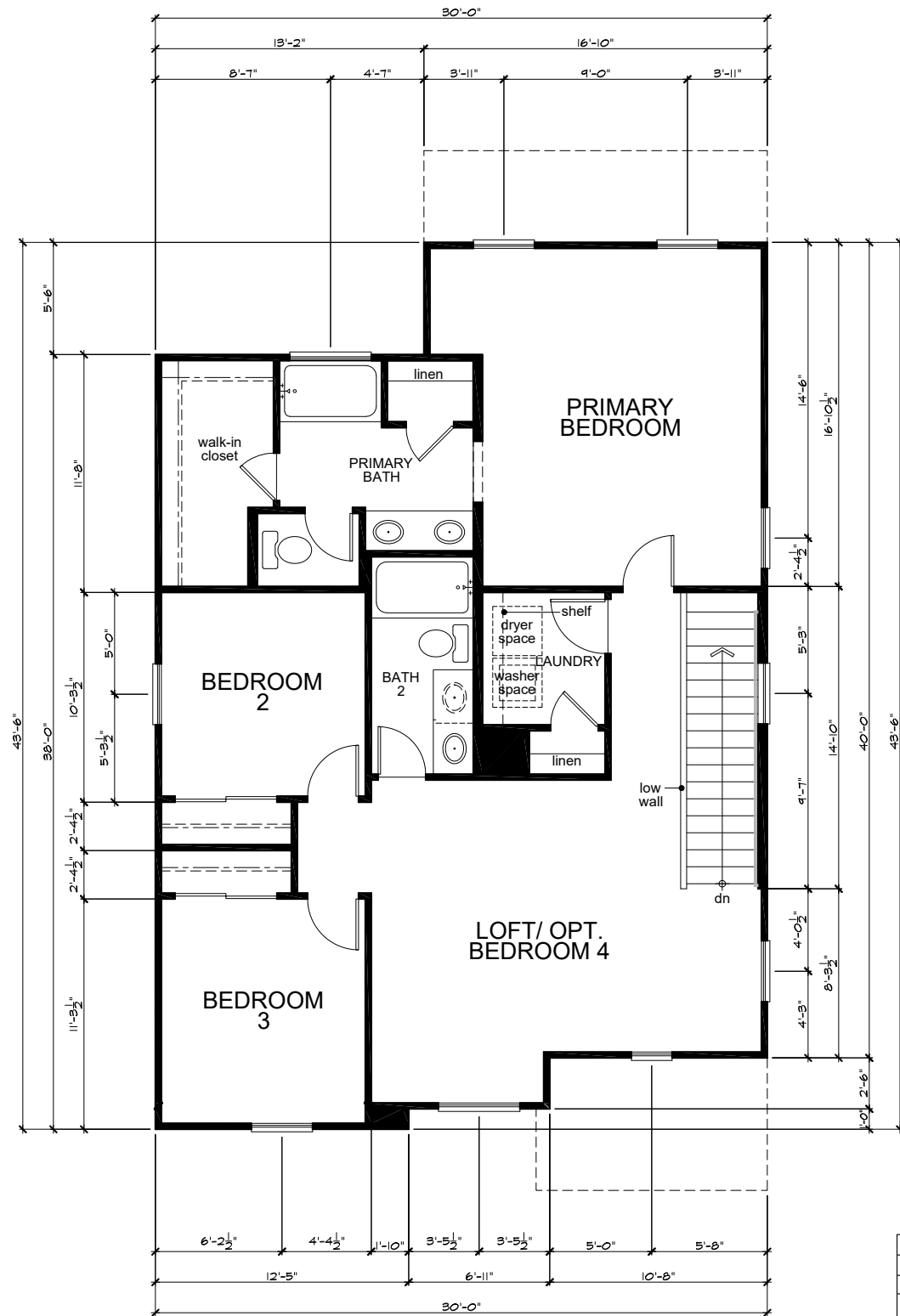
Elevation 'C' - Farmhouse



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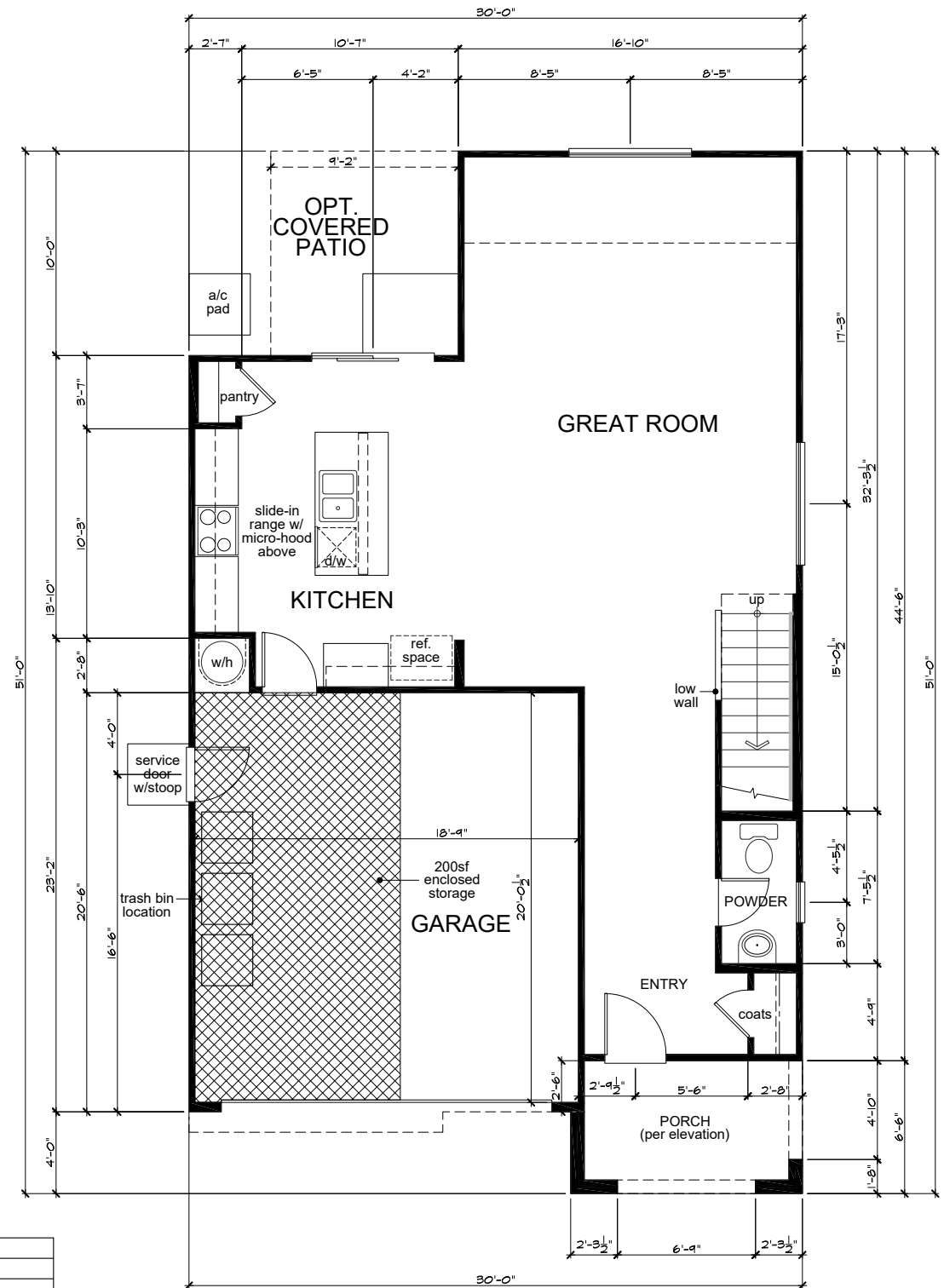
ROLLINGWOOD





Second Floor Plan 'A'

SQUARE FOOTAGE				
PLAN 230.1972				
	'A'	'B'	'C'	
FIRST FLOOR AREA	853	853	853	SQ. FT.
SECOND FLOOR AREA	1130	1130	1114	SQ. FT.
TOTAL AREA	1983	1983	1967	SQ. FT.
GARAGE AREA	399	399	399	SQ. FT.
PORCH AREA	12	12	12	SQ. FT.
OPTIONS:				
COVERED PATIO	42	42	42	SQ. FT.



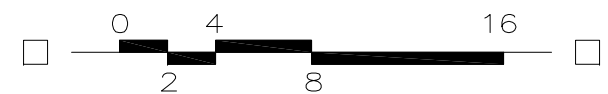
First Floor Plan 'A'



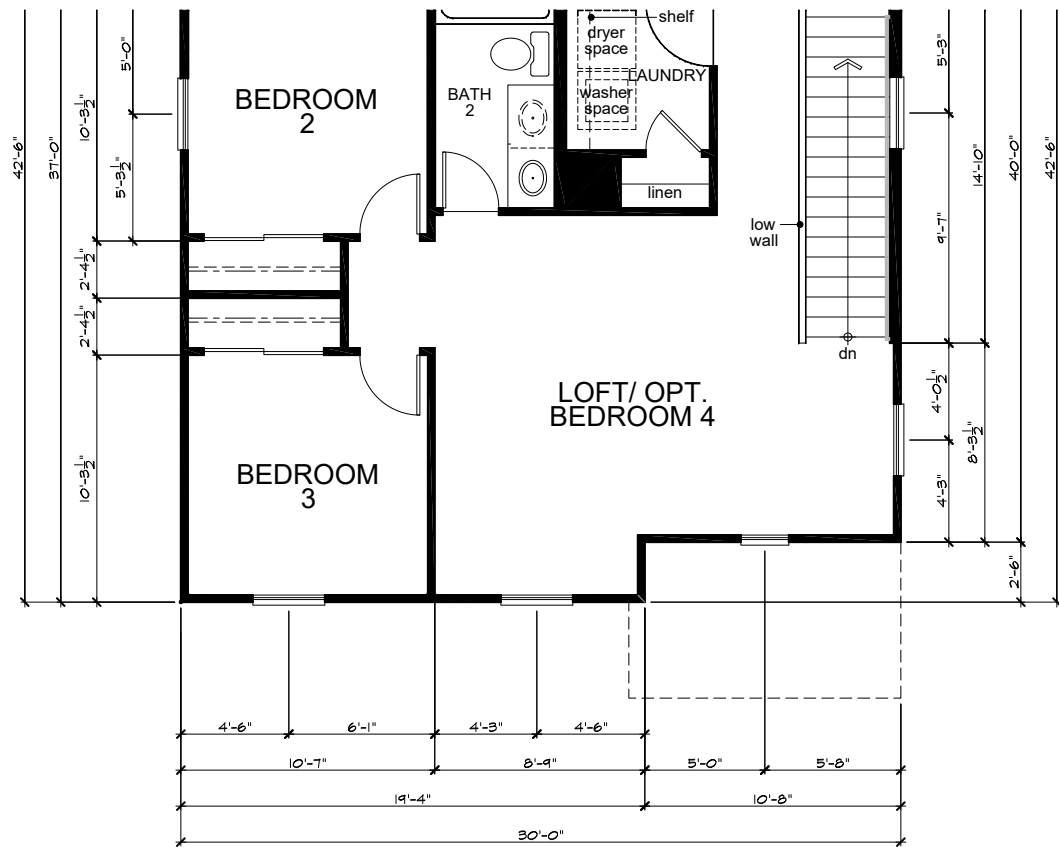
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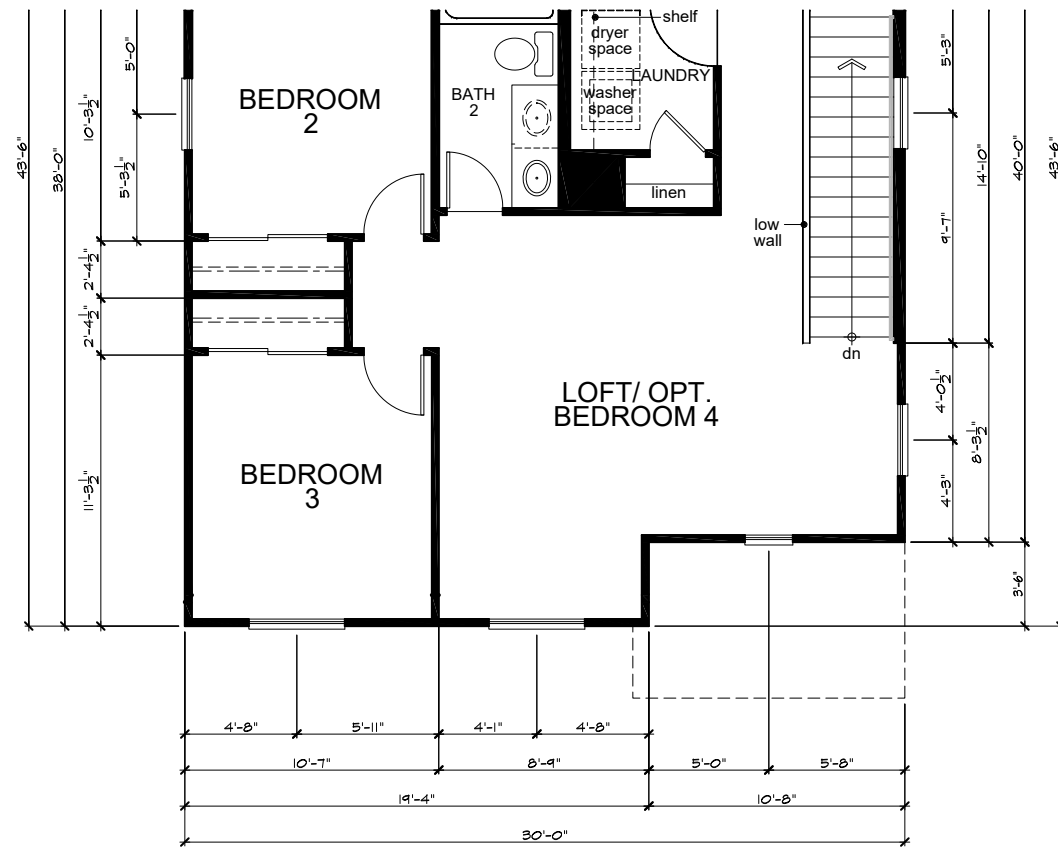
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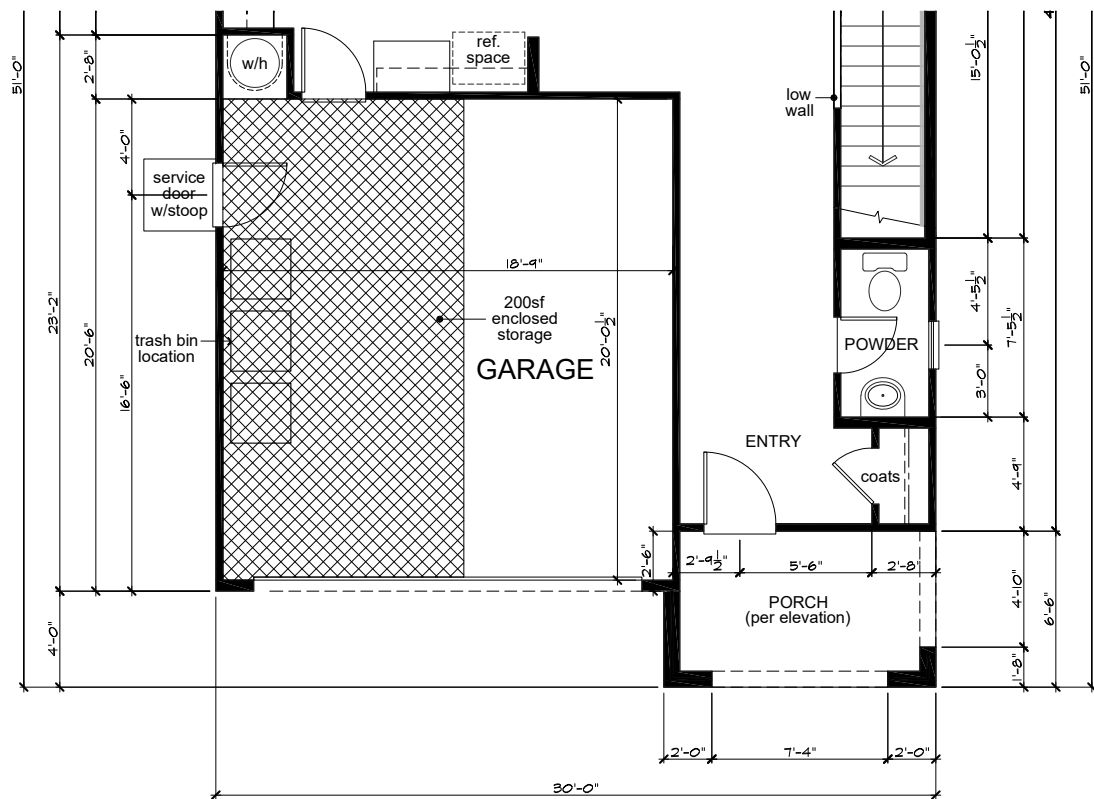
PLAN No. : 230.1972
JOB No. : 600153
STORY: Two Story
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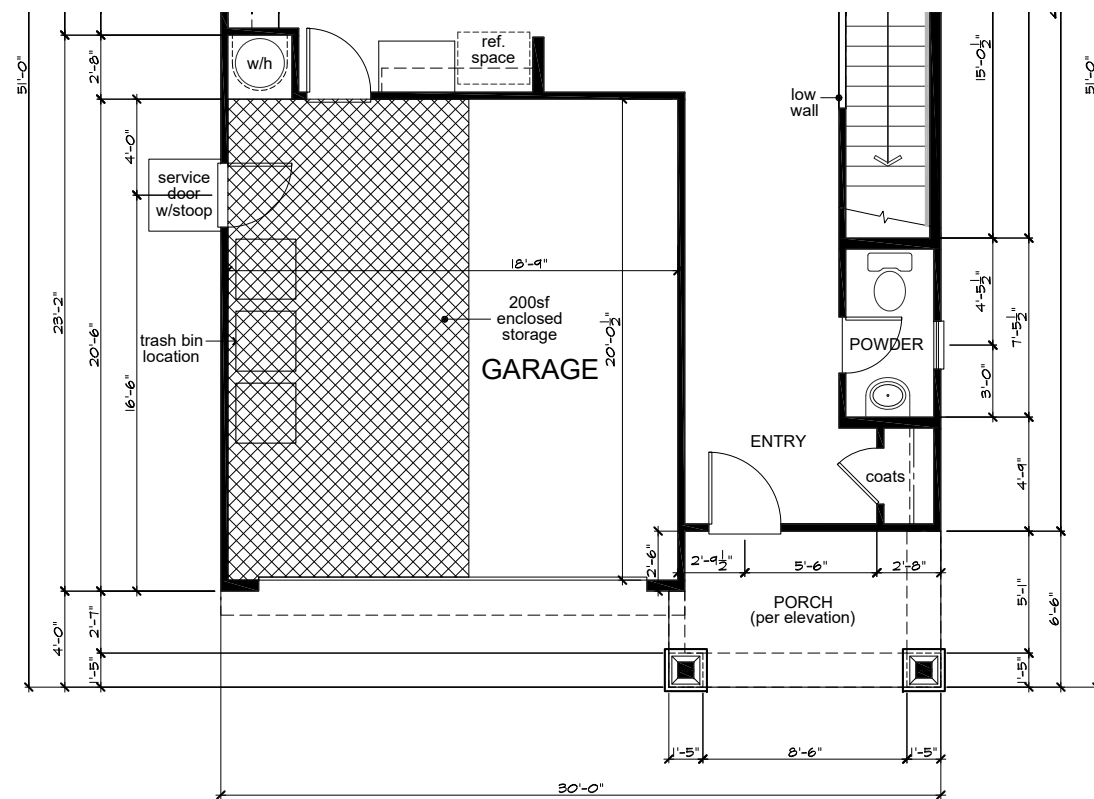
Second Floor Plan 'C'



Second Floor Plan 'B'



First Floor Plan 'C'



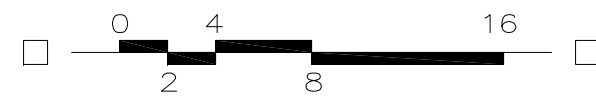
First Floor Plan 'B'



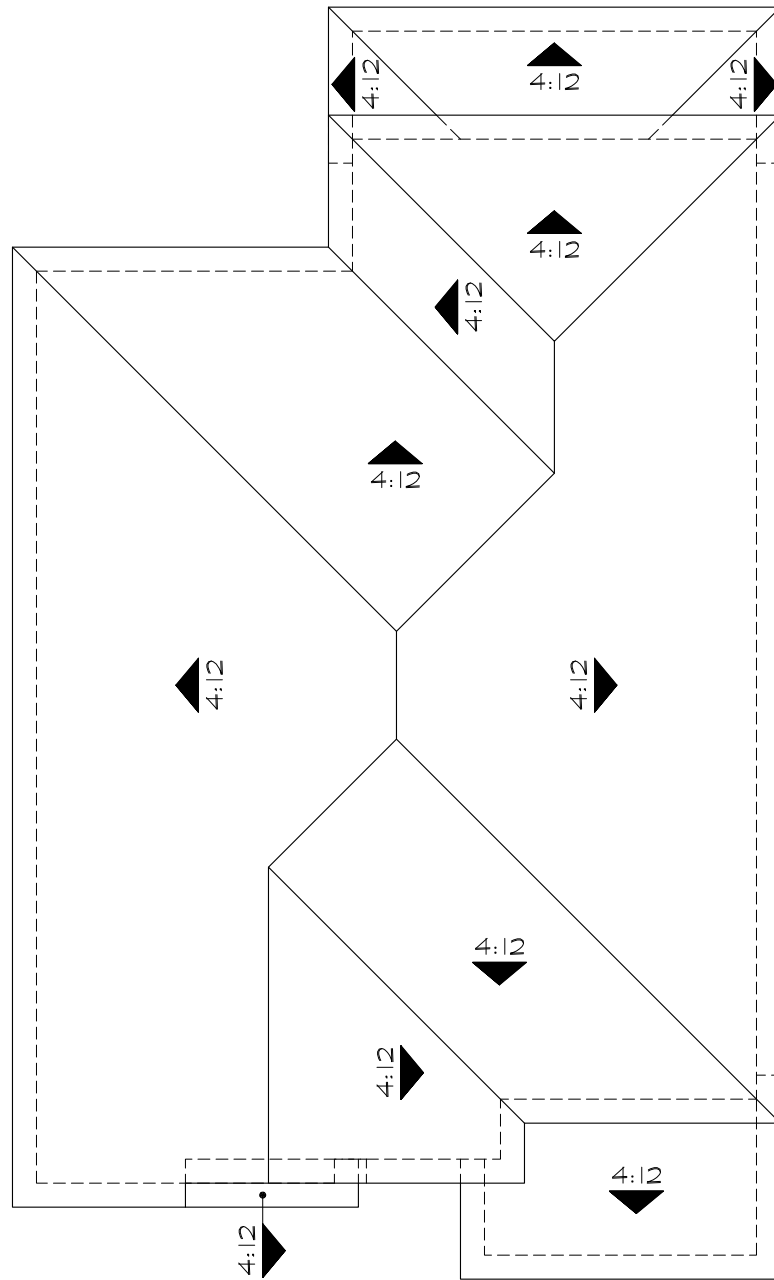
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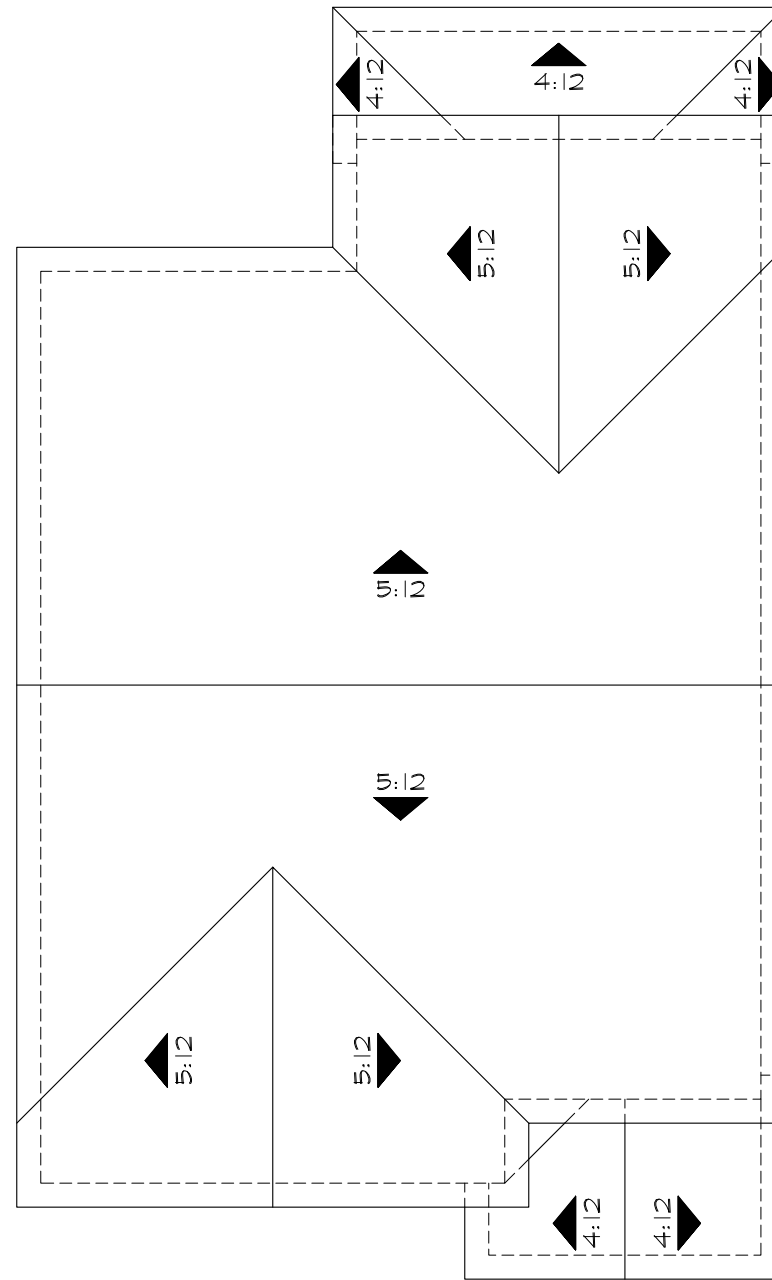


PLAN No. : 230.1972
JOB No. : 600153
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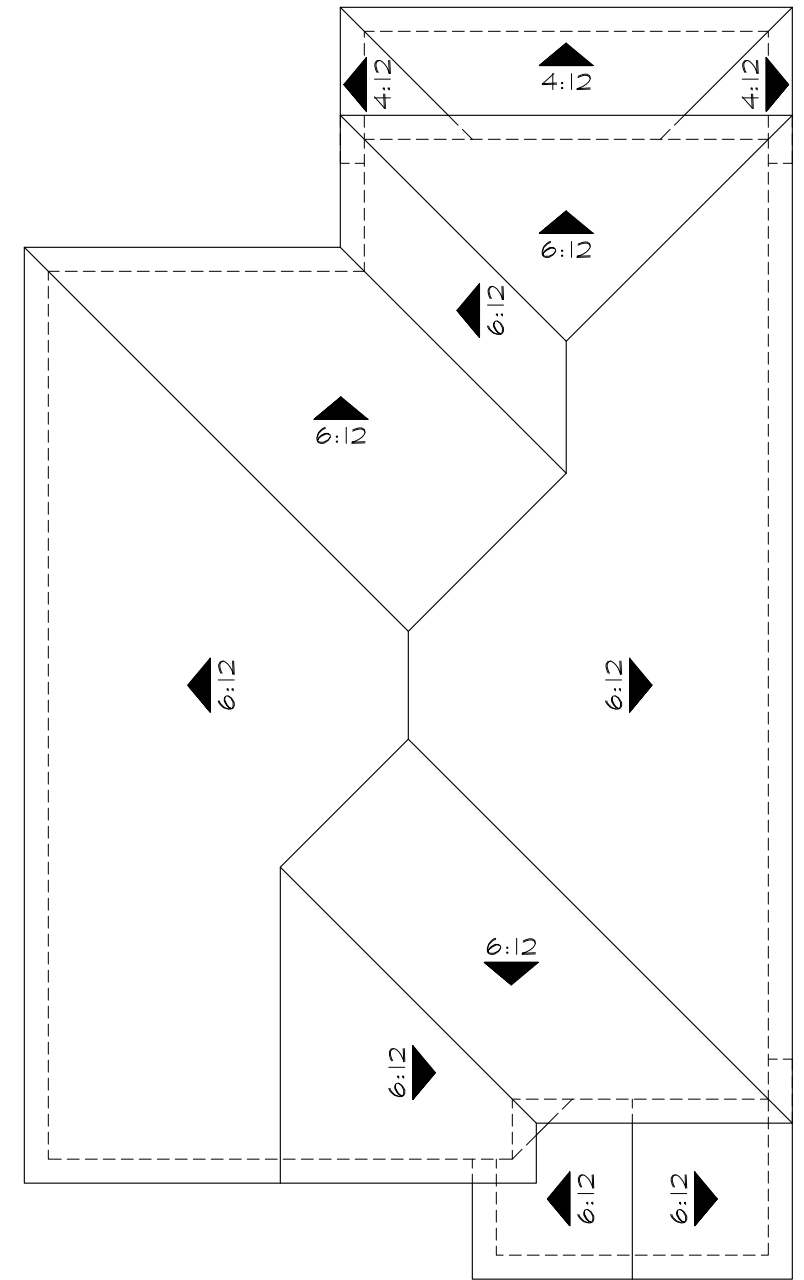
'A'

Roof Area: 1336 SF



'B'

Roof Area: 1342 SF



'C'

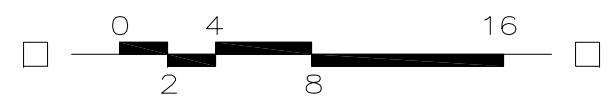
Roof Area: 1324 SF

Roof Plans

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Left Elevation 'A'



Right Elevation 'A'

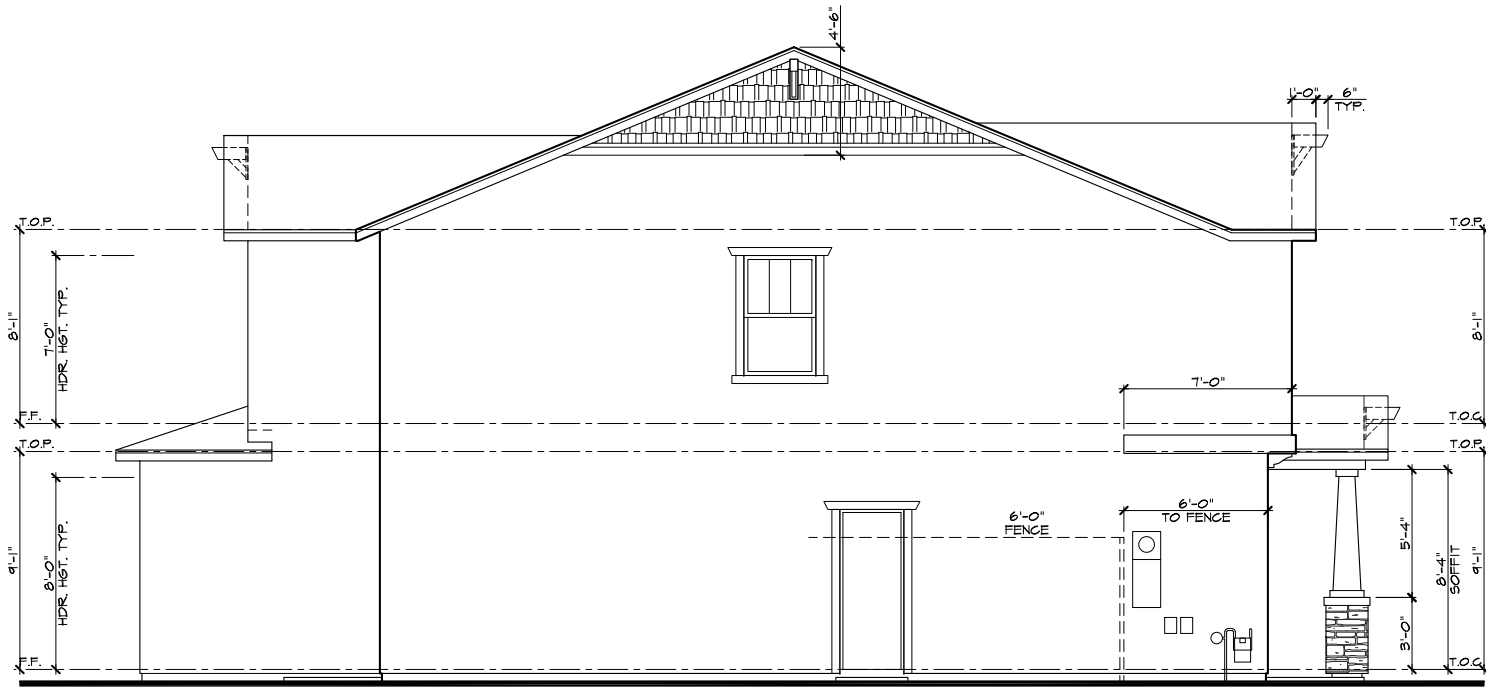


Front Elevation 'A' - Spanish

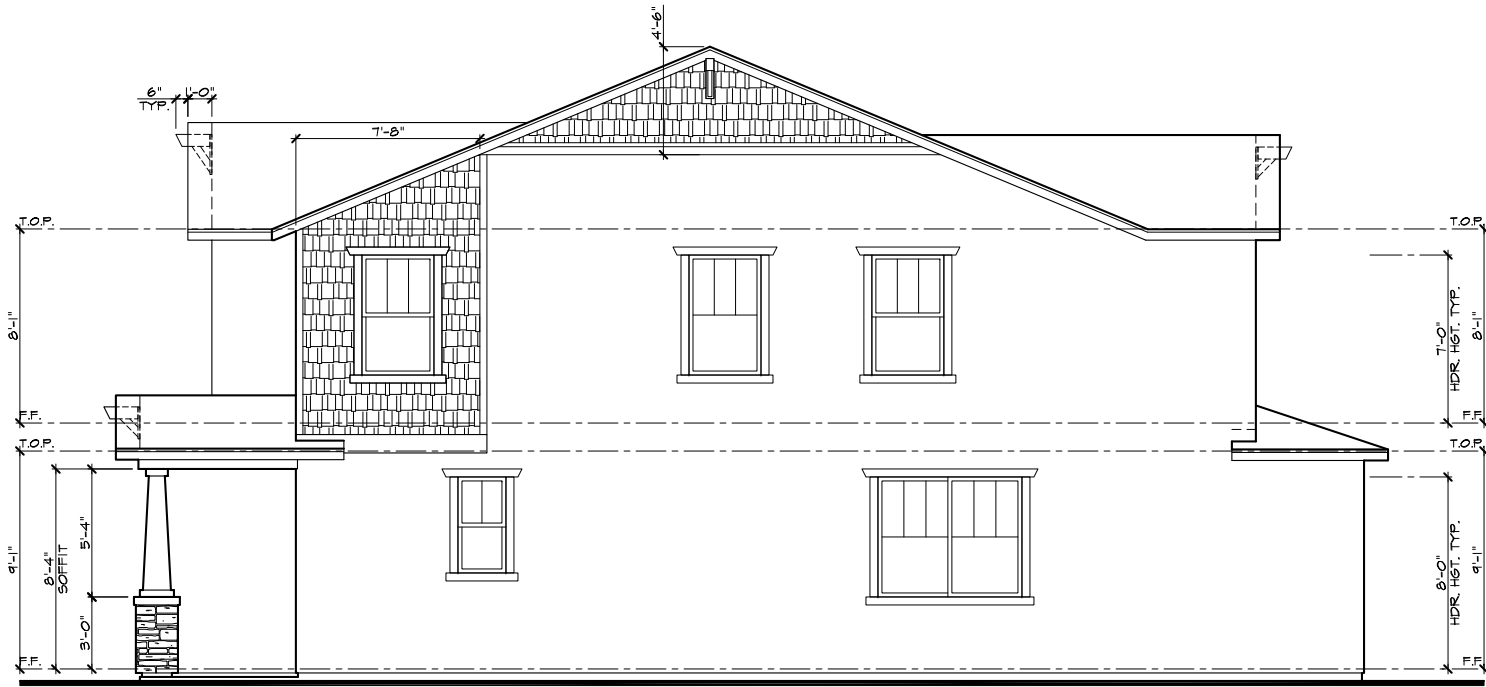


Rear Elevation 'A'





Left Elevation 'B'



Right Elevation 'B'

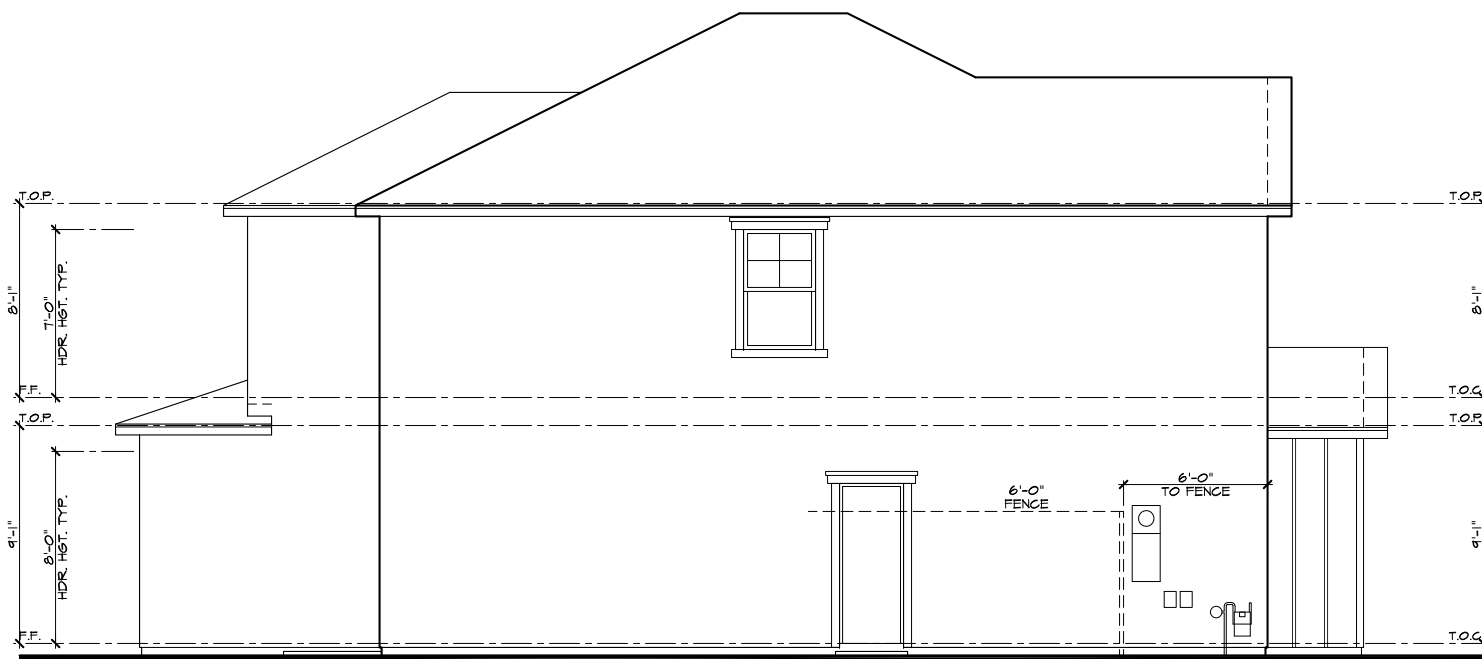


Front Elevation 'B' - Craftsman



Rear Elevation 'B'





Left Elevation 'C'



Right Elevation 'C'



Front Elevation 'C' - Farmhouse



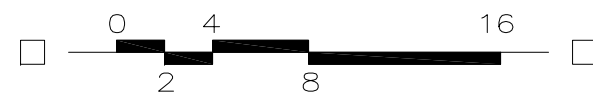
Rear Elevation 'C'



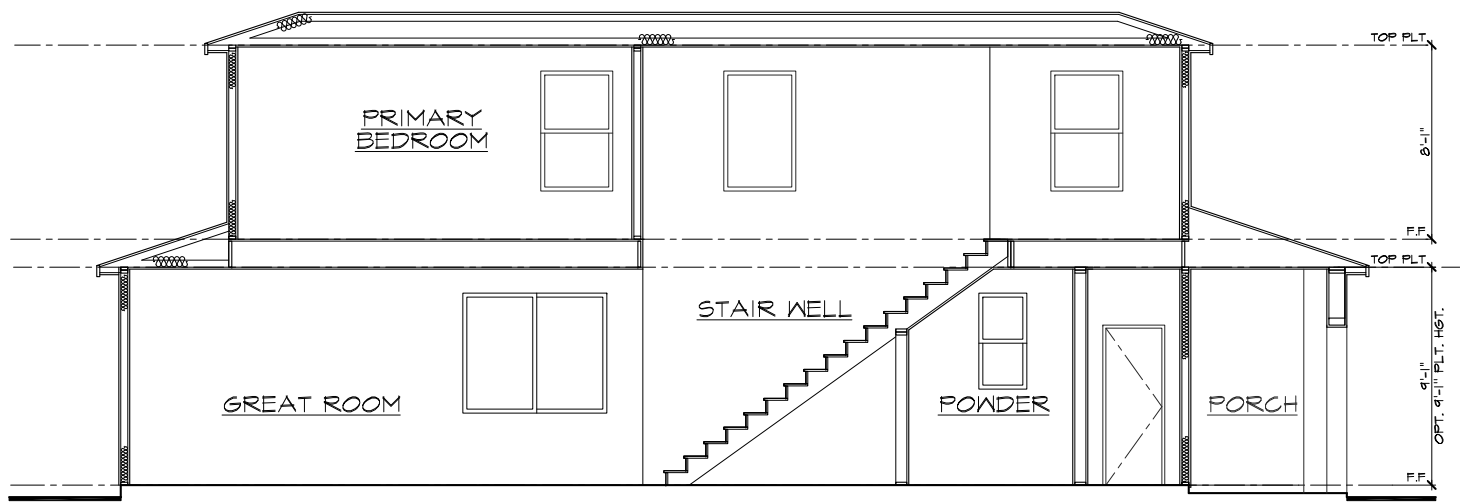
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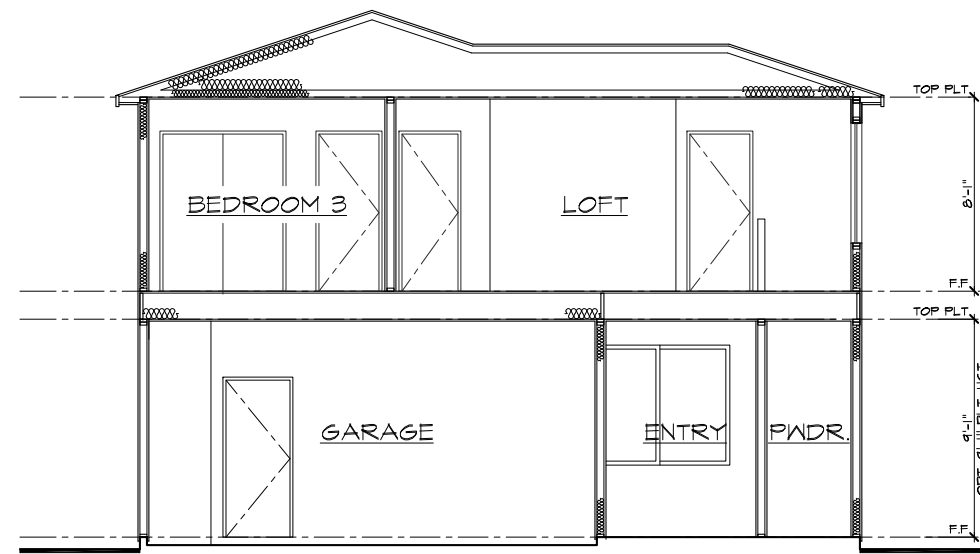
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PLAN No. : 230.1972
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Section B



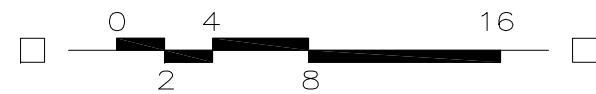
Section A

Building Sections Elevation 'A'

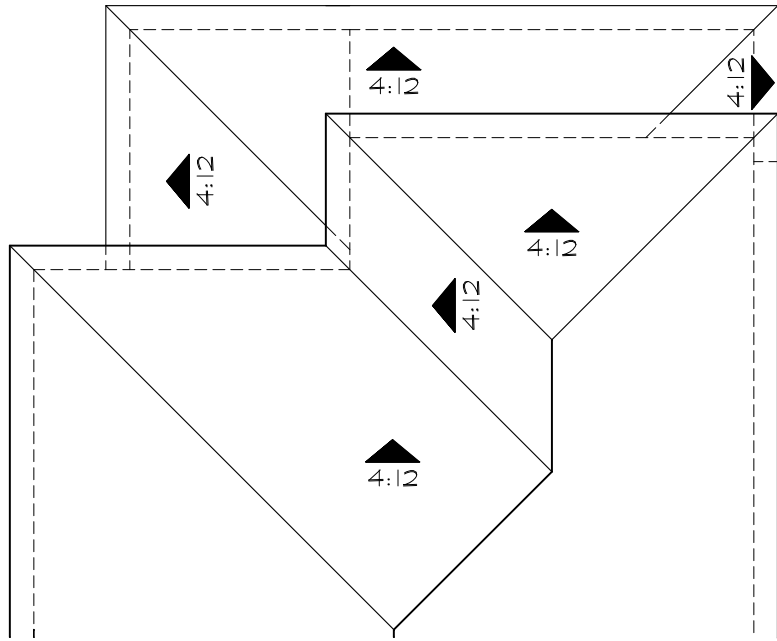


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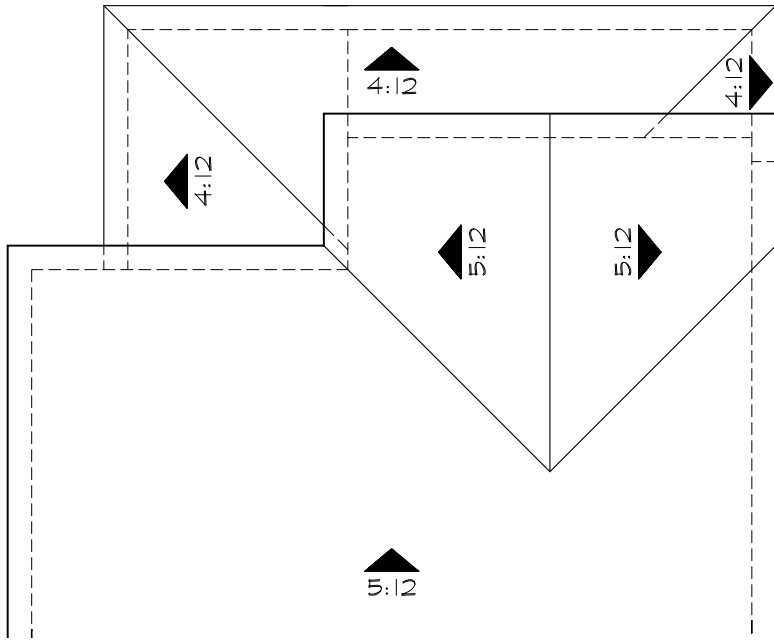
ROLLINGWOOD



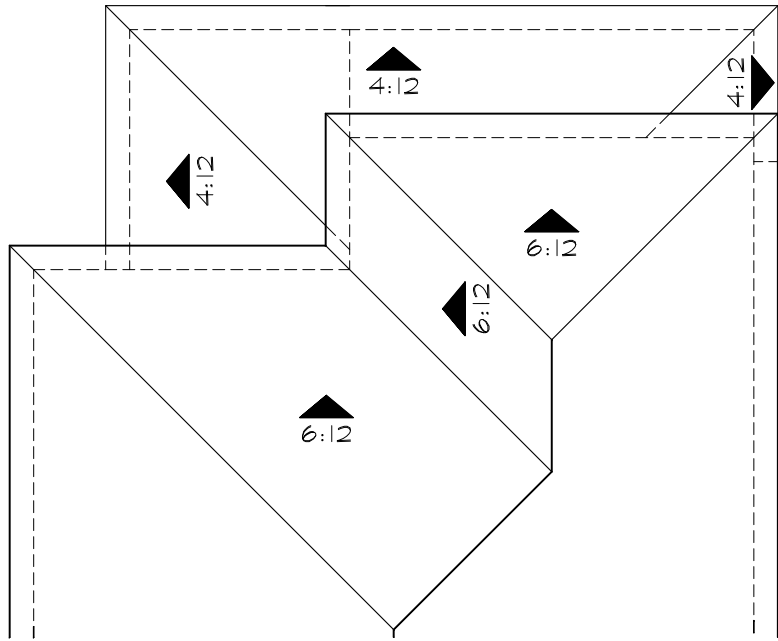
PLAN No. : 230.1972
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'A'

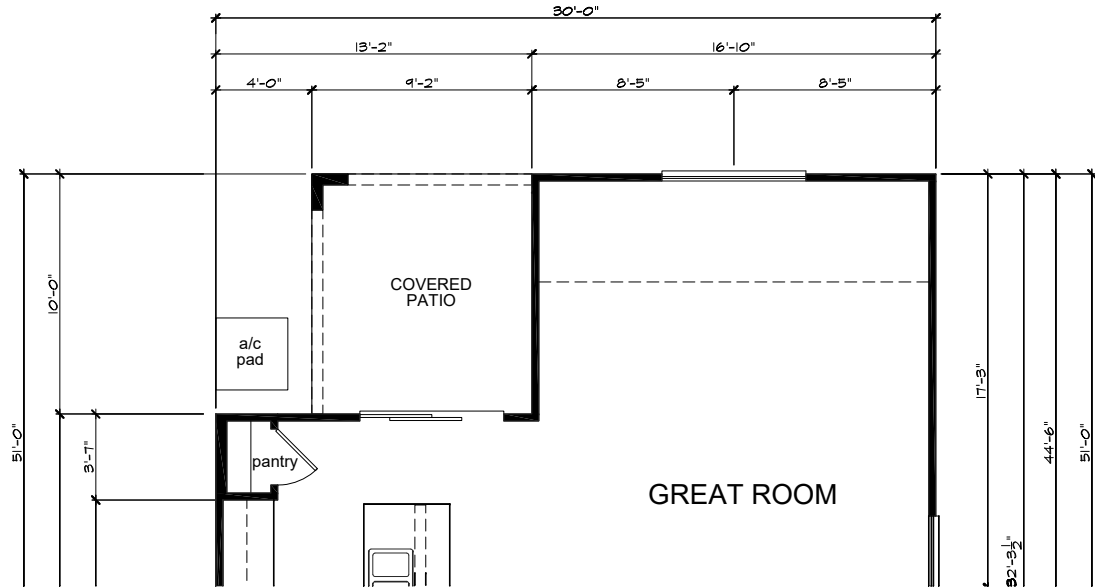


'B'



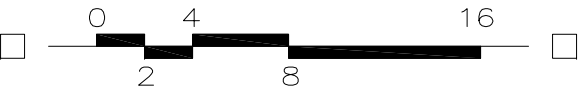
'C'

Roof Plans
at Covered Patio



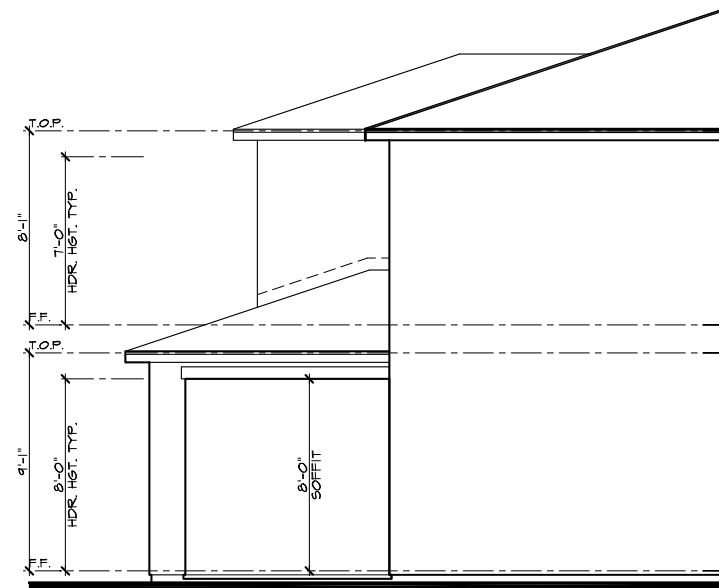
Partial Floor Plan
at Covered Patio

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Rear Elevation 'A'



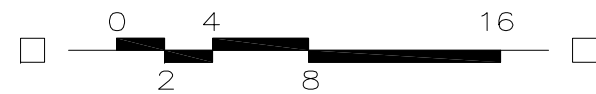
Partial Left Elevation 'A'

Elevations
at Covered Patio

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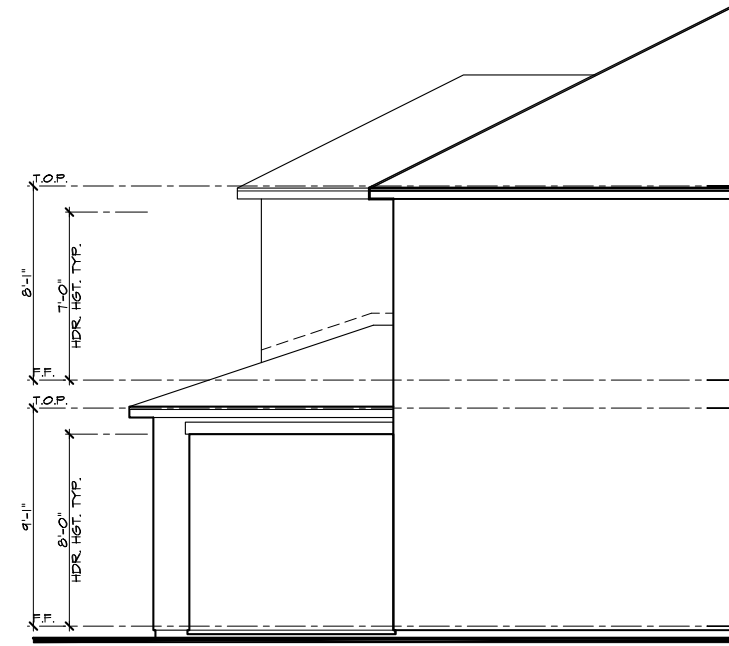
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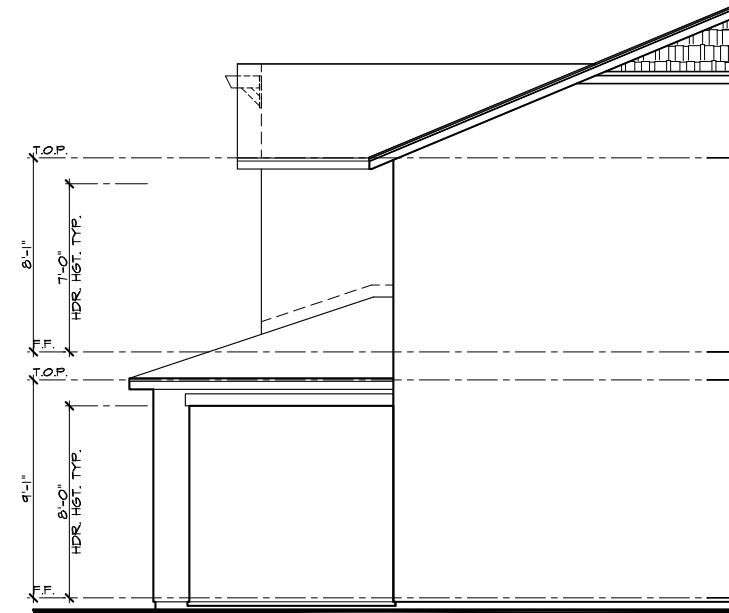
Rear Elevation 'C'



Partial Left Elevation 'C'



Rear Elevation 'B'



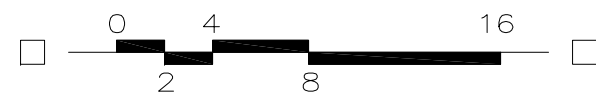
Partial Left Elevation 'B'

Elevations
at Covered Patio



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JOB No. : 600153
STORY: Two Story
March 28, 2024

ELEVATION LEGEND

- 1 CONCRETE 'S' TILE ROOFING
- 2 CONCRETE FLAT TILE ROOFING
- 3 WOOD FASCIA BOARD
- 4 STUCCO FINISH
- 5 STUCCO OVER FOAM TRIM
- 6 STUCCO OVER FOAM CORBELS
- 7 DECORATIVE STUCCO COLUMNS (STUCCO OVER WOOD FRAMING)
- 8 PRE-FAB WINDOW SYSTEM
- 9 COMPOSITE ENTRY DOOR
- 10 METAL ROLL-UP GARAGE DOOR
- 11 DECORATIVE SHUTTERS
- 12 STUCCO OVER SHAPED FOAM TRIM
- 13 DECORATIVE STUCCO RECESS
- 14 CEMENT FIBER SIDING
- 15 DECORATIVE CLAY PIPE
- 16 STONE VENEER
- 17 DECORATIVE FOAM VENTS
- 18 COACH LIGHT
- 19 DECORATIVE BOARD & BATTEN
- 20 WOOD POST
- 21 BRICK VENEER
- 22 FIBER CEMENT CORBEL
- 23 ILLUMINATED ADDRESS SIGN
- 24 DECORATIVE OUTLOOKER WITH KNEEBRACE
- 25 FIBER CEMENT TRIM



Elevation 'A' - Spanish



Elevation 'B' - Craftsman



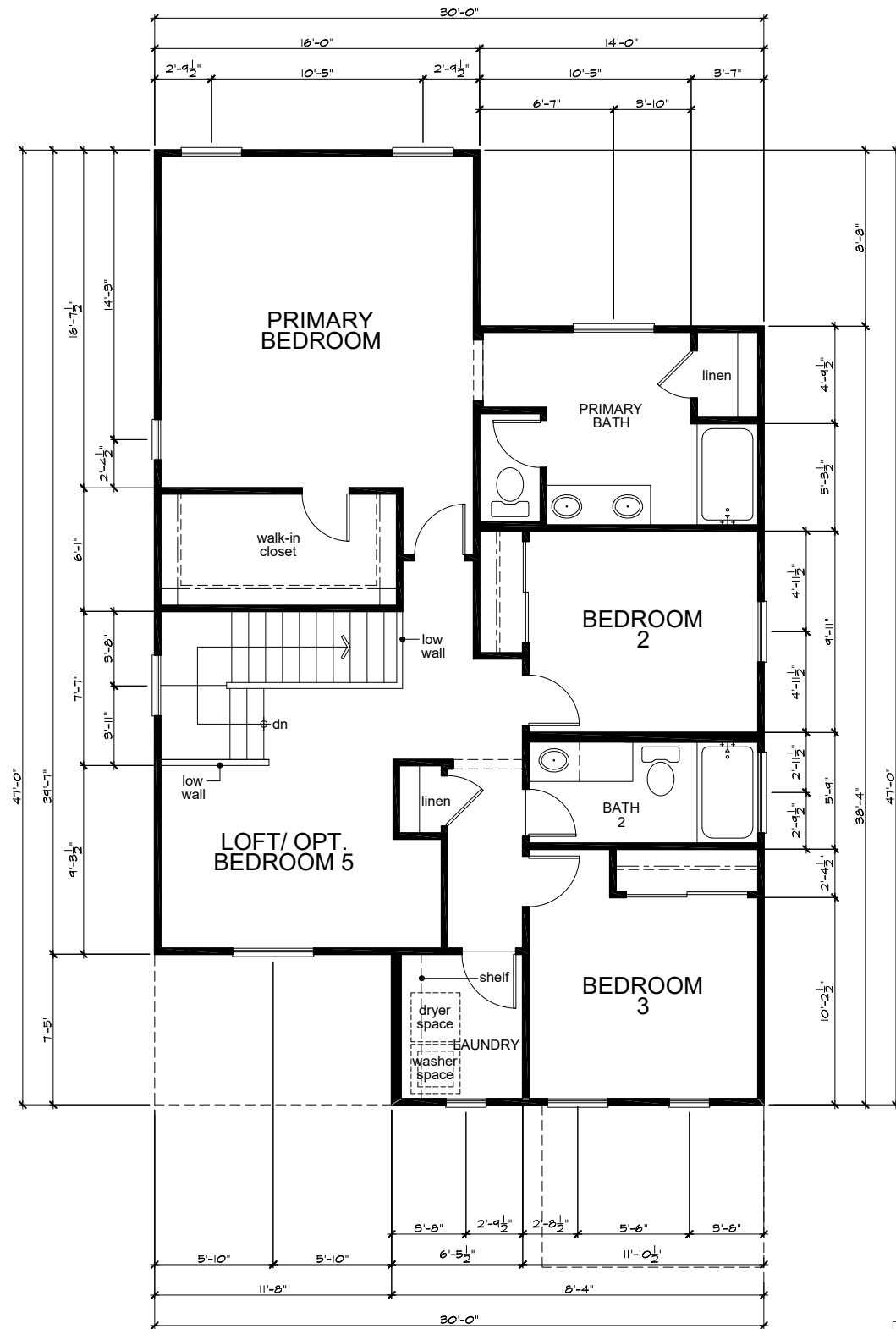
Elevation 'C' - Farmhouse



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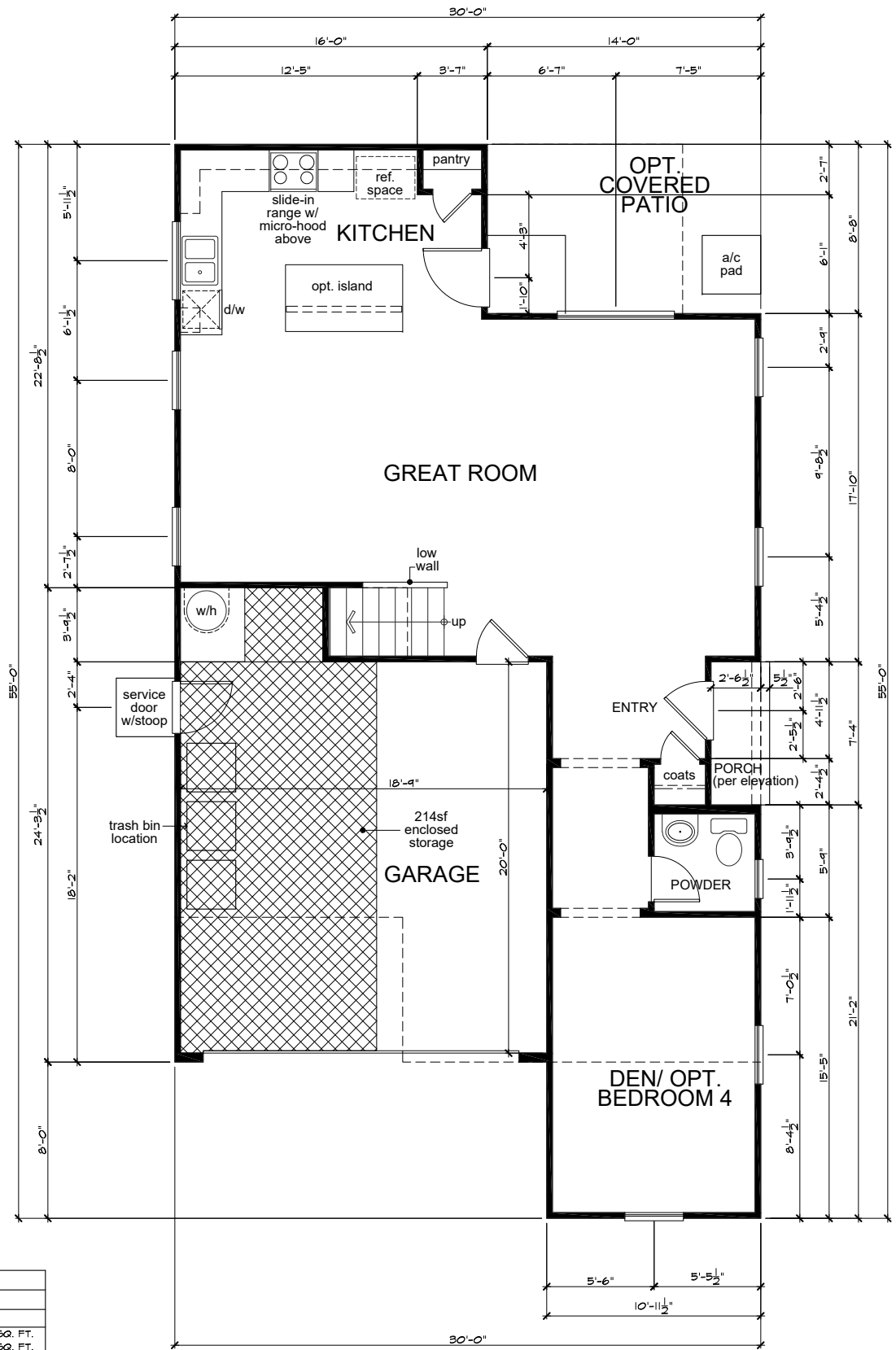
ROLLINGWOOD





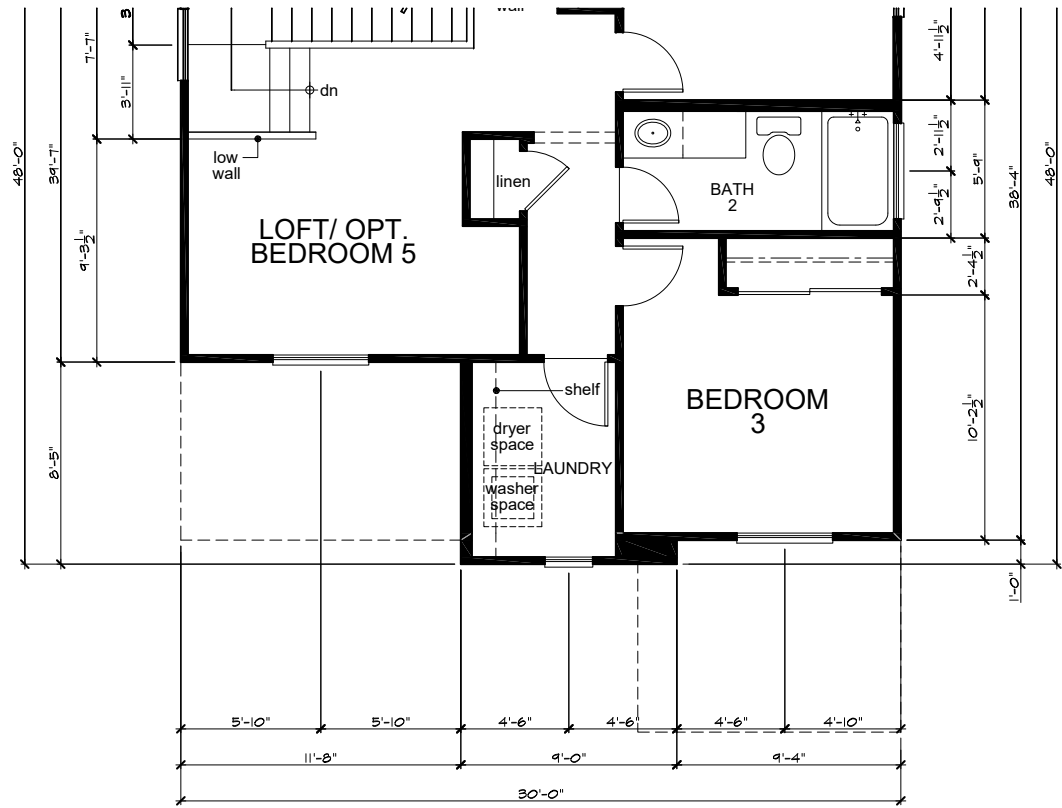
Second Floor Plan 'A'

SQUARE FOOTAGE				
PLAN 230.2124				
	'A'	'B'	'C'	SQ. FT.
FIRST FLOOR AREA	451	451	451	SQ. FT.
SECOND FLOOR AREA	1187	1198	1194	SQ. FT.
TOTAL AREA	2124	2135	2131	SQ. FT.
GARAGE AREA	420	420	420	SQ. FT.
PORCH AREA	22	22	22	SQ. FT.
OPTIONS:				
COVERED PATIO	81	81	81	SQ. FT.

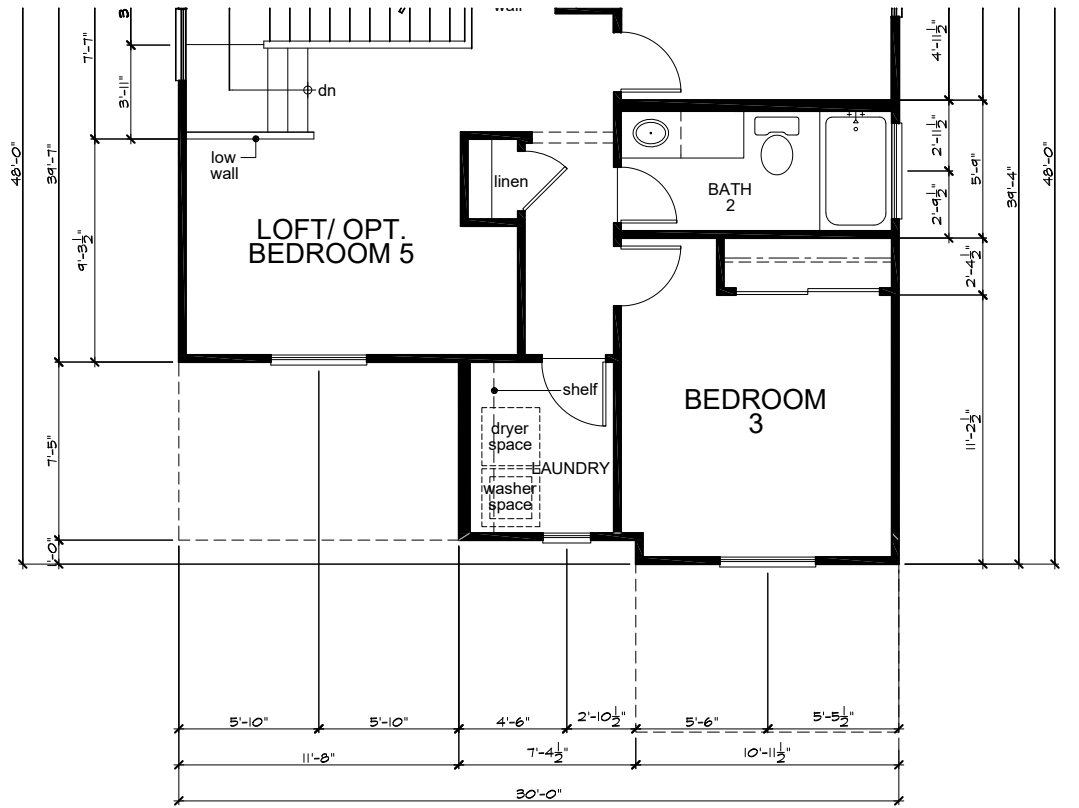


First Floor Plan 'A'

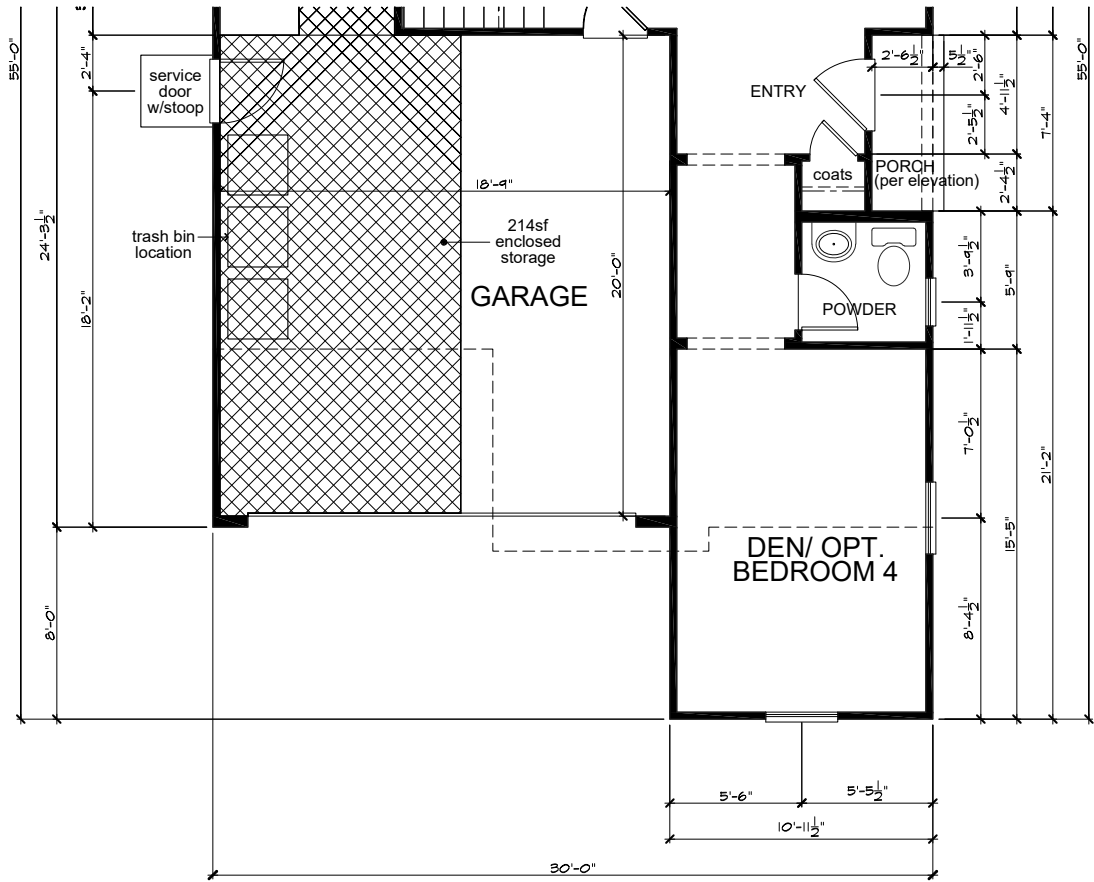




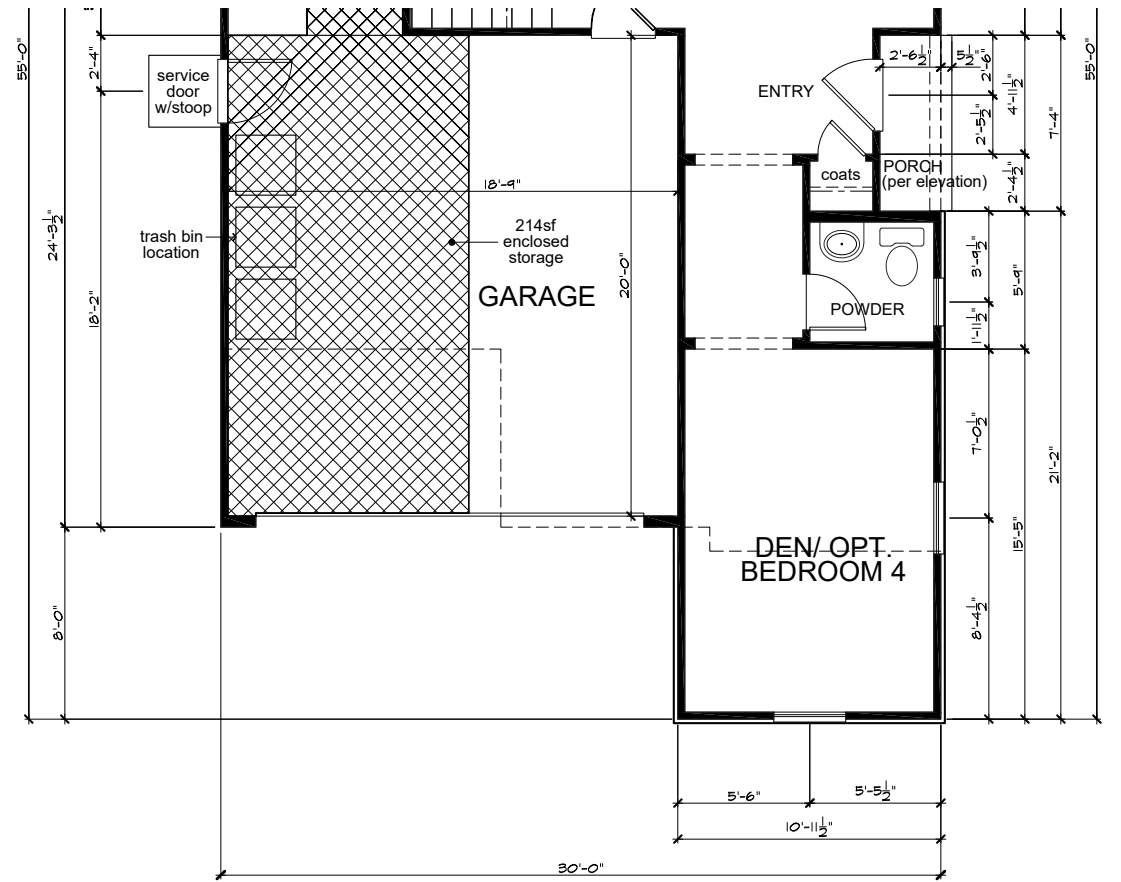
Second Floor Plan 'C'



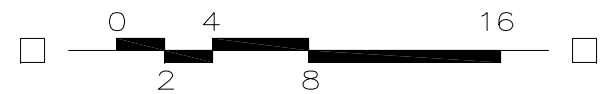
Second Floor Plan 'B'

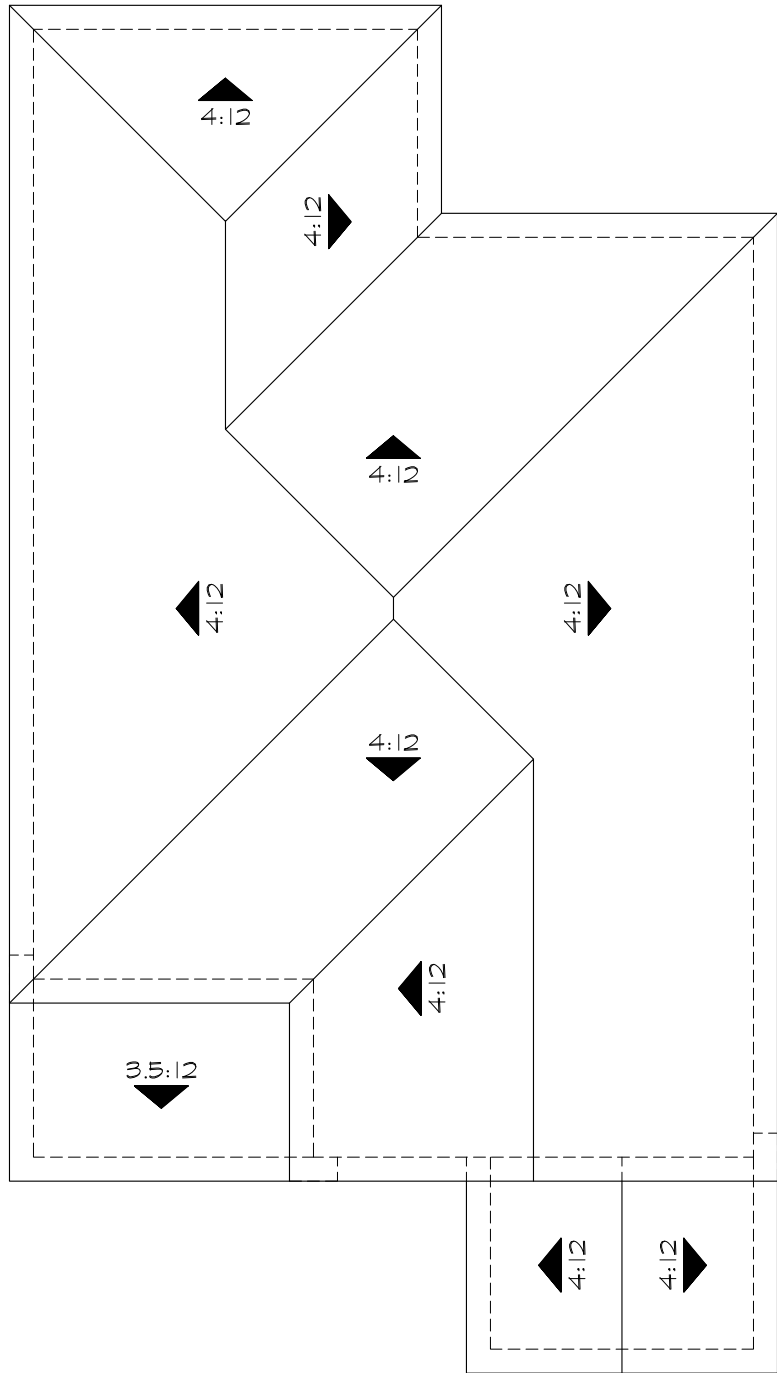


First Floor Plan 'C'



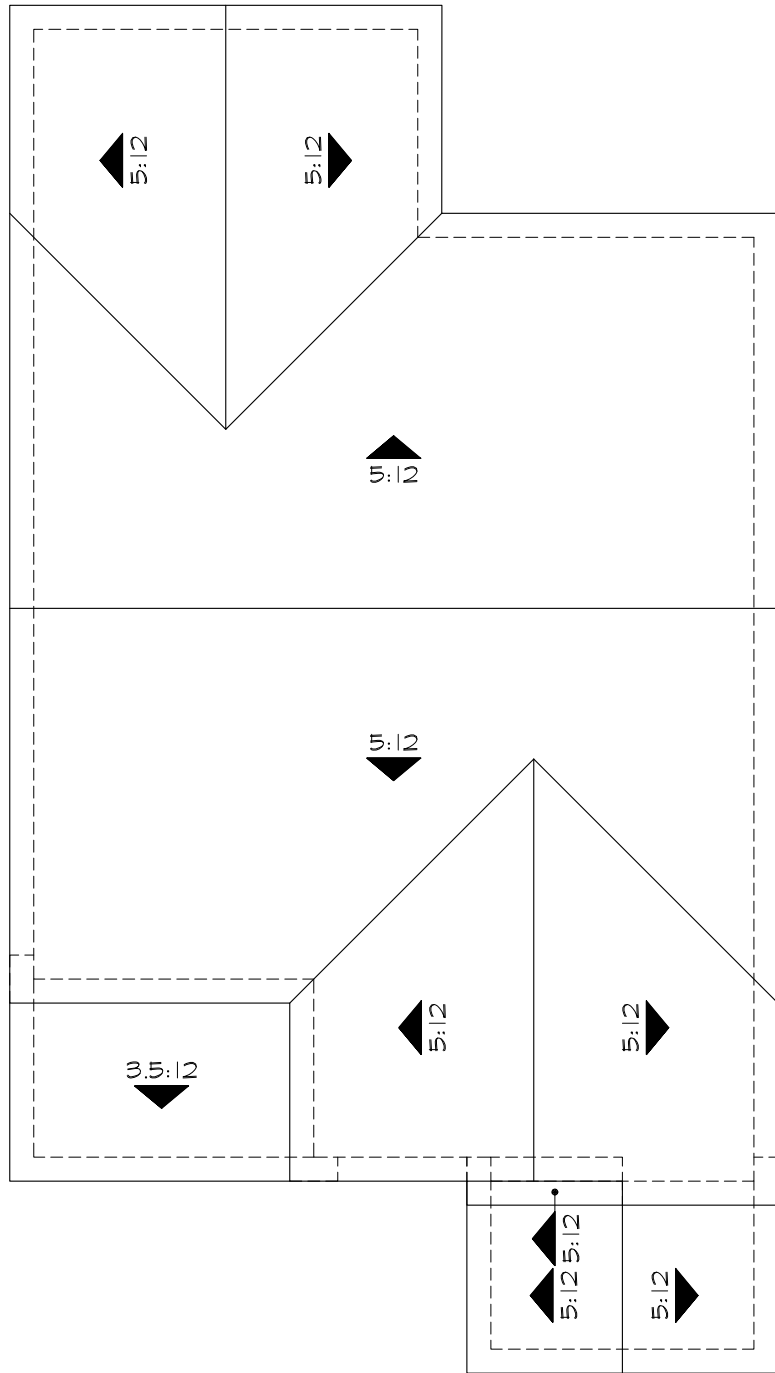
First Floor Plan 'B'





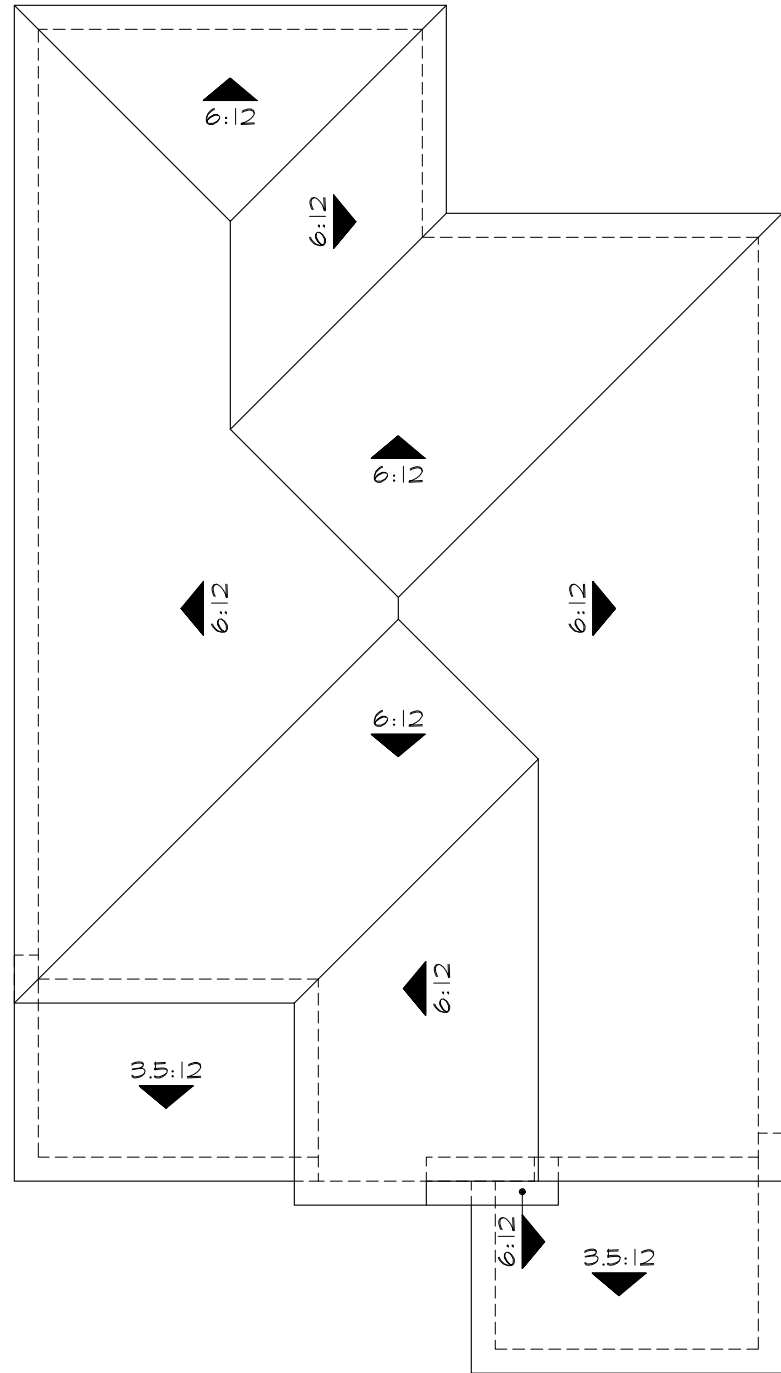
'A'

Roof Area: 1376 SF



'B'

Roof Area: 1376 SF



'C'

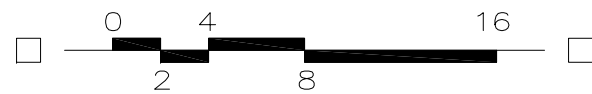
Roof Area: 1384 SF

Roof Plans

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PLAN No. : 230.2124
JOB No. : 600153
STORY: Two Story
March 28, 2024



Left Elevation 'A'



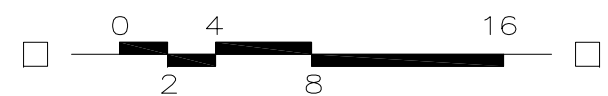
Front Elevation 'A' - Spanish

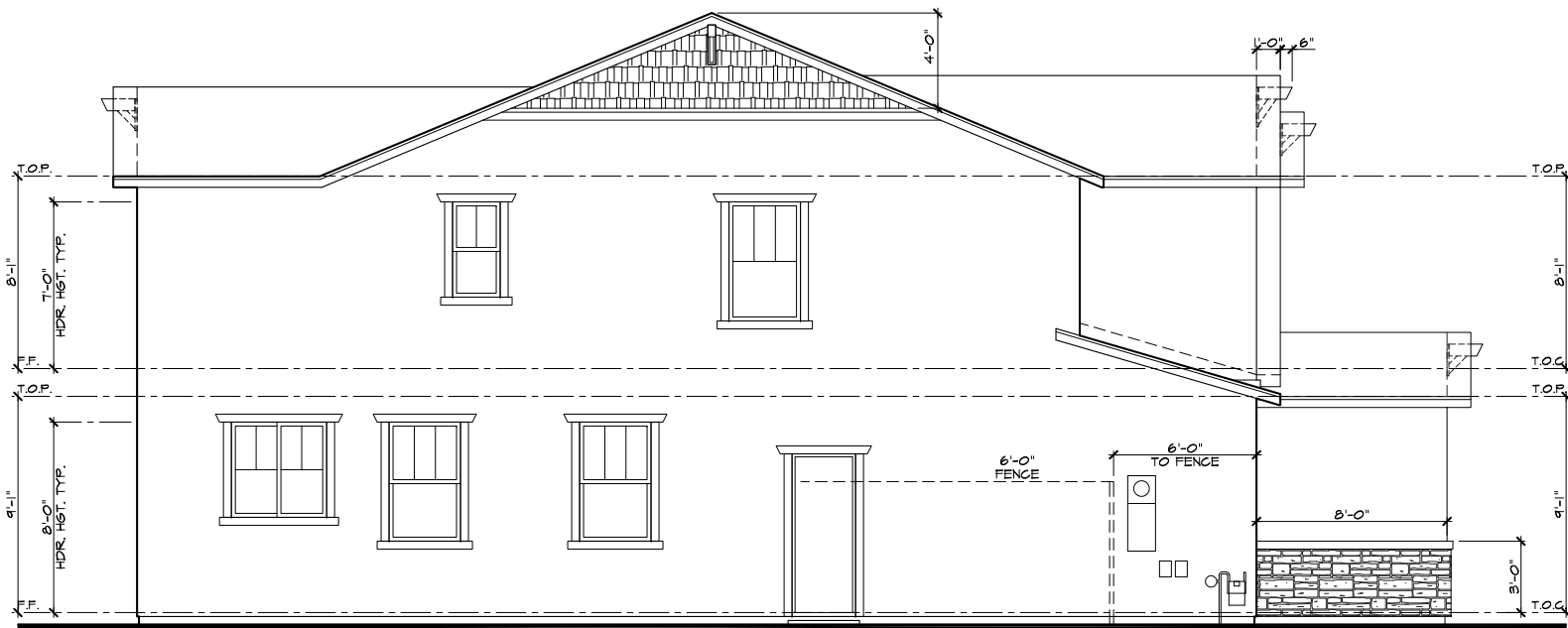


Right Elevation 'A'



Rear Elevation 'A'





Left Elevation 'B'



Front Elevation 'B' - Craftsman



Right Elevation 'B'



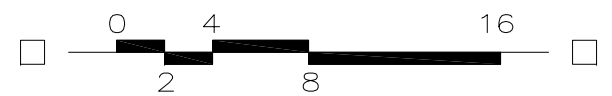
Rear Elevation 'B'



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PLAN No. : 230.2124
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March 28, 2024



Left Elevation 'C'



Right Elevation 'C'



Front Elevation 'C' - Farmhouse



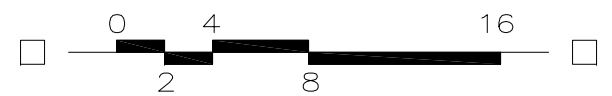
Rear Elevation 'C'



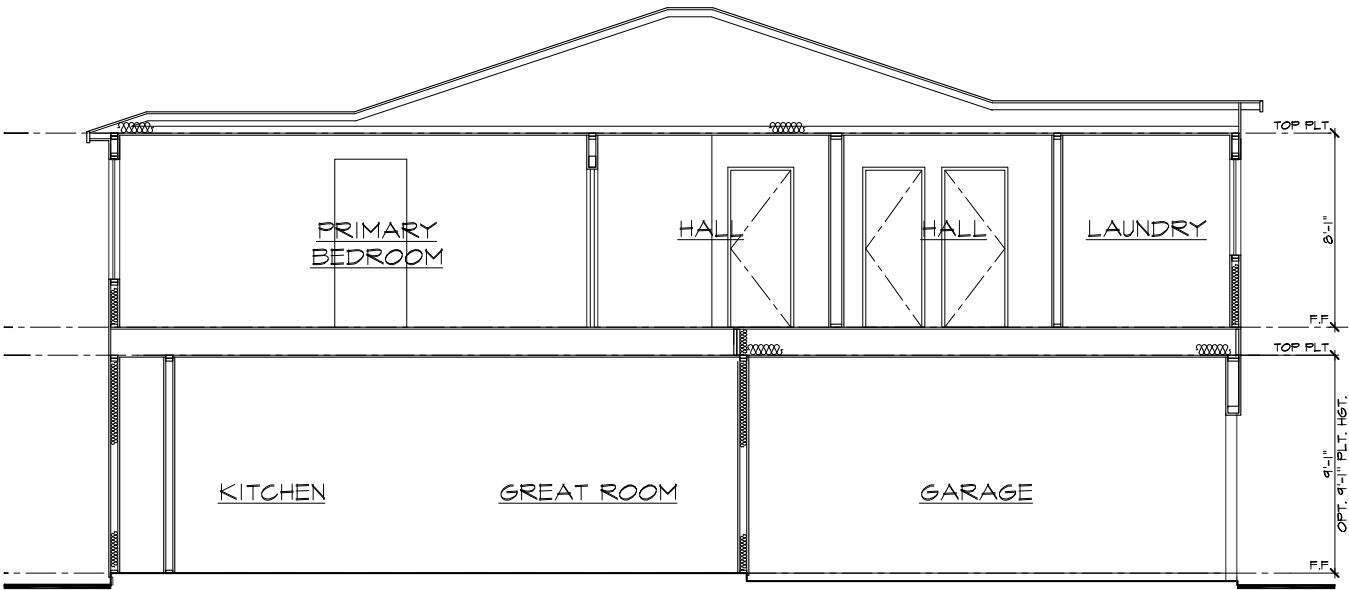
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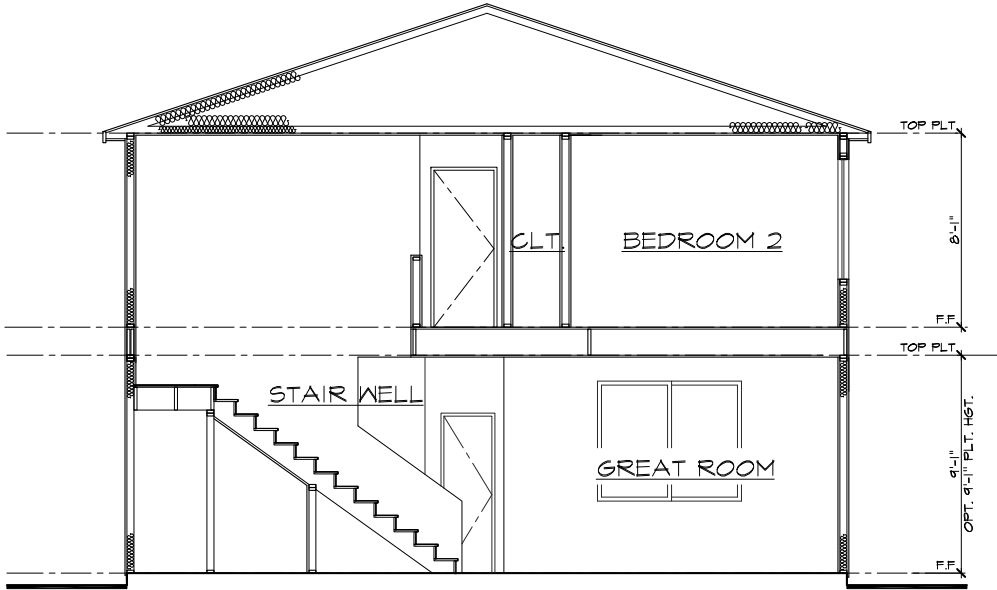
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PLAN No. : 230.2124
JOB No. : 600153
STORY: Two Story
March 28, 2024



Section B



Section A

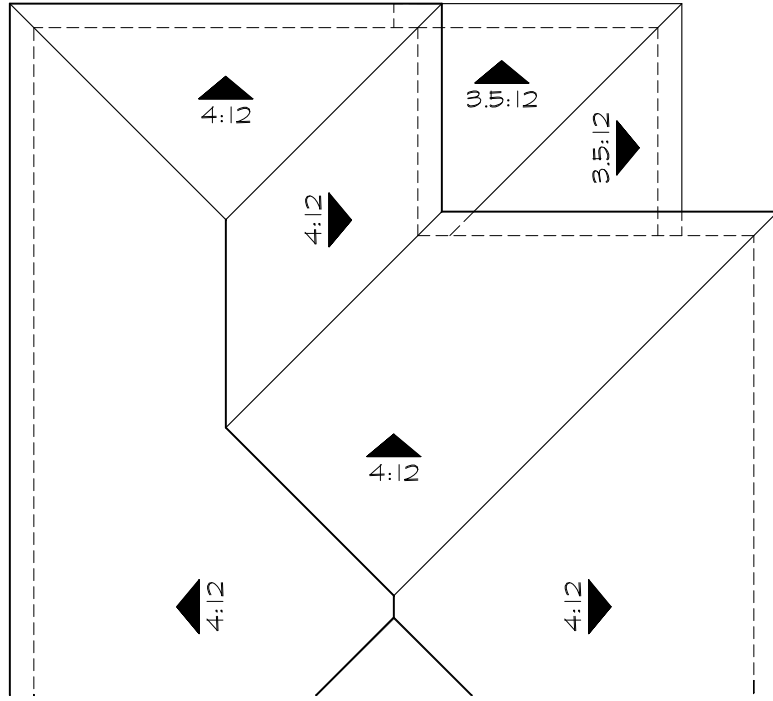
Building Sections Elevation 'A'



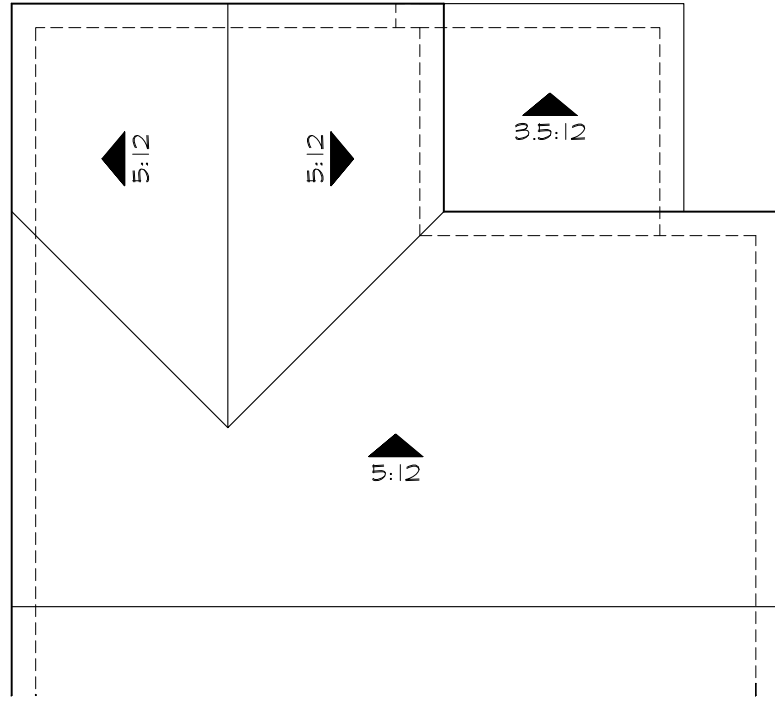
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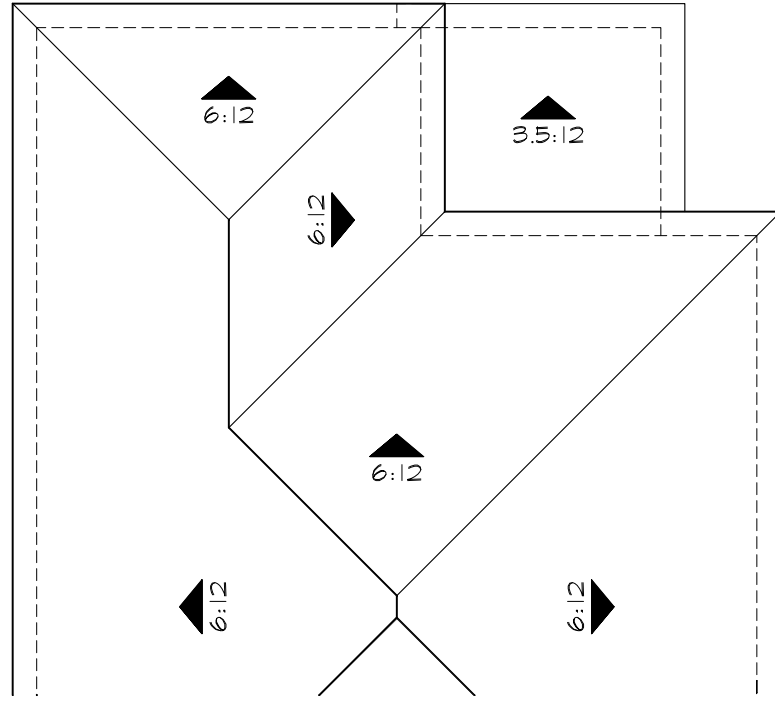




'A'

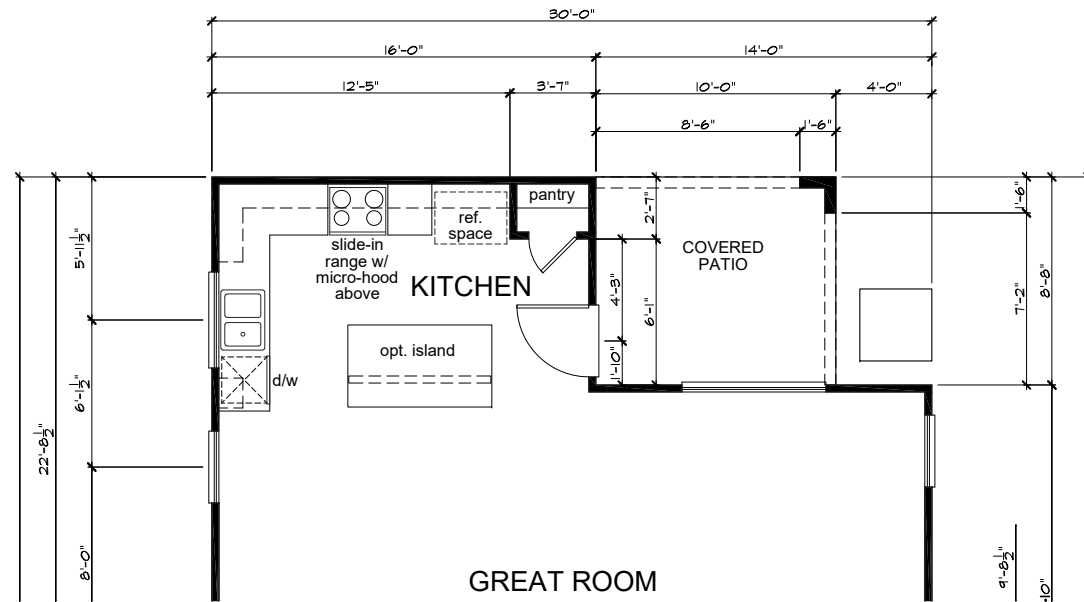


'B'



'C'

Roof Plans
at Covered Patio



Partial Floor Plan
at Covered Patio

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Rear Elevation 'A'



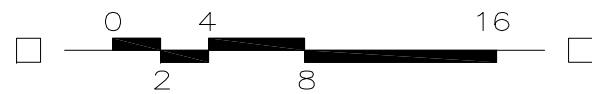
Partial Right Elevation 'A'

Elevations
at Covered Patio

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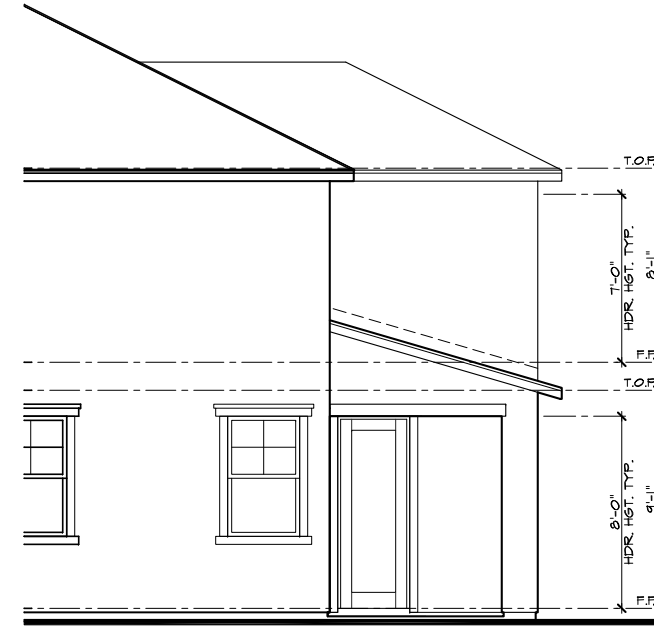
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PLAN No. : 230.2124
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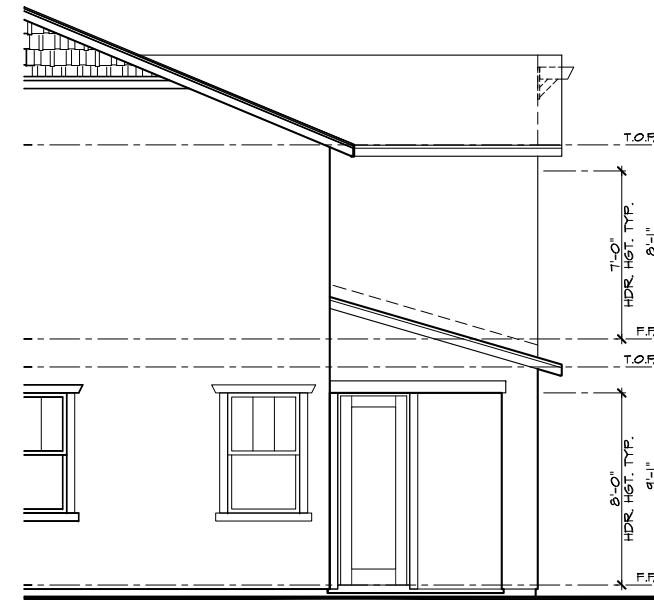
Rear Elevation 'C'



Partial Right Elevation 'C'



Rear Elevation 'B'



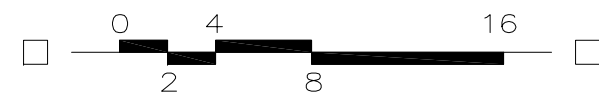
Partial Right Elevation 'B'

Elevations
at Covered Patio

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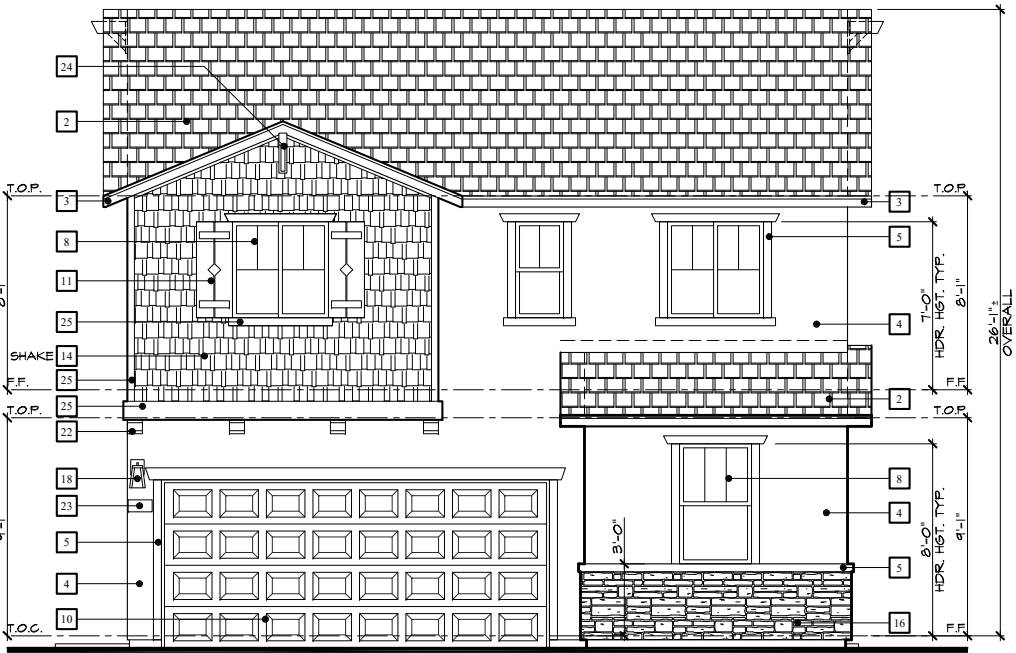
PLAN No. : 230.2124
JOB No. : 600153
STORY: Two Story
March 28, 2024

ELEVATION LEGEND

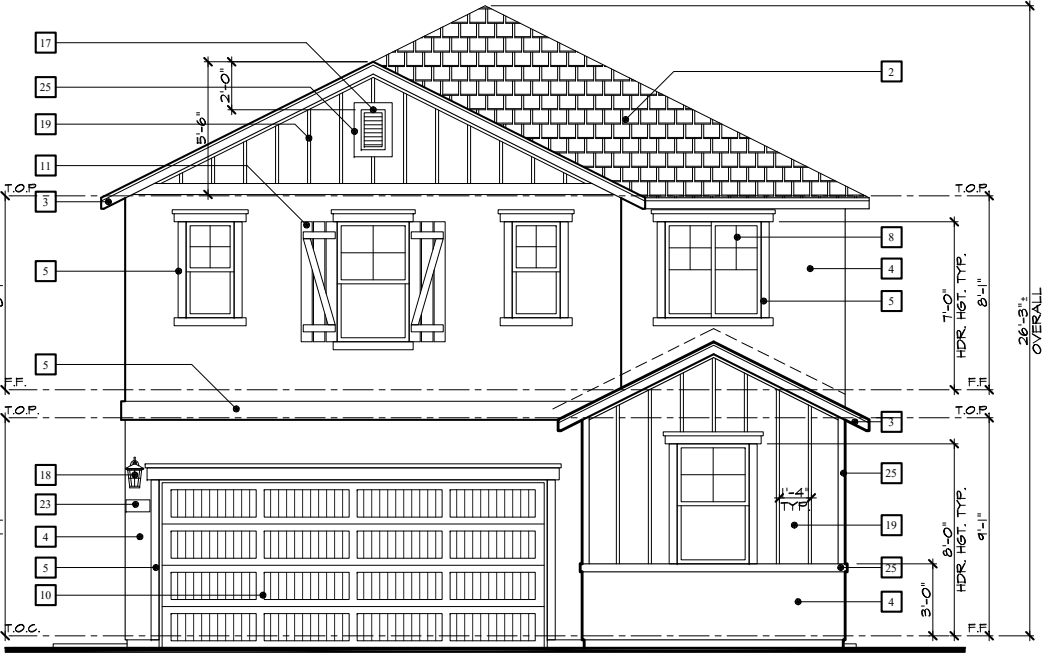
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- 2 CONCRETE FLAT TILE ROOFING
- 3 WOOD FASCIA BOARD
- 4 STUCCO FINISH
- 5 STUCCO OVER FOAM TRIM
- 6 STUCCO OVER FOAM CORBELS
- 7 DECORATIVE STUCCO COLUMNS (STUCCO OVER WOOD FRAMING)
- 8 PRE-FAB WINDOW SYSTEM
- 9 COMPOSITE ENTRY DOOR
- 10 METAL ROLL-UP GARAGE DOOR
- 11 DECORATIVE SHUTTERS
- 12 STUCCO OVER SHAPED FOAM TRIM
- 13 DECORATIVE STUCCO RECESS
- 14 CEMENT FIBER SIDING
- 15 DECORATIVE CLAY PIPE
- 16 STONE VENEER
- 17 DECORATIVE FOAM VENTS
- 18 COACH LIGHT
- 19 DECORATIVE BOARD & BATTEN
- 20 WOOD POST
- 21 BRICK VENEER
- 22 FIBER CEMENT CORBEL
- 23 ILLUMINATED ADDRESS SIGN
- 24 DECORATIVE OUTLOOKER WITH KNEEBRACE
- 25 FIBER CEMENT TRIM



Elevation 'A' - Spanish



Elevation 'B' - Craftsman



Elevation 'C' - Farmhouse

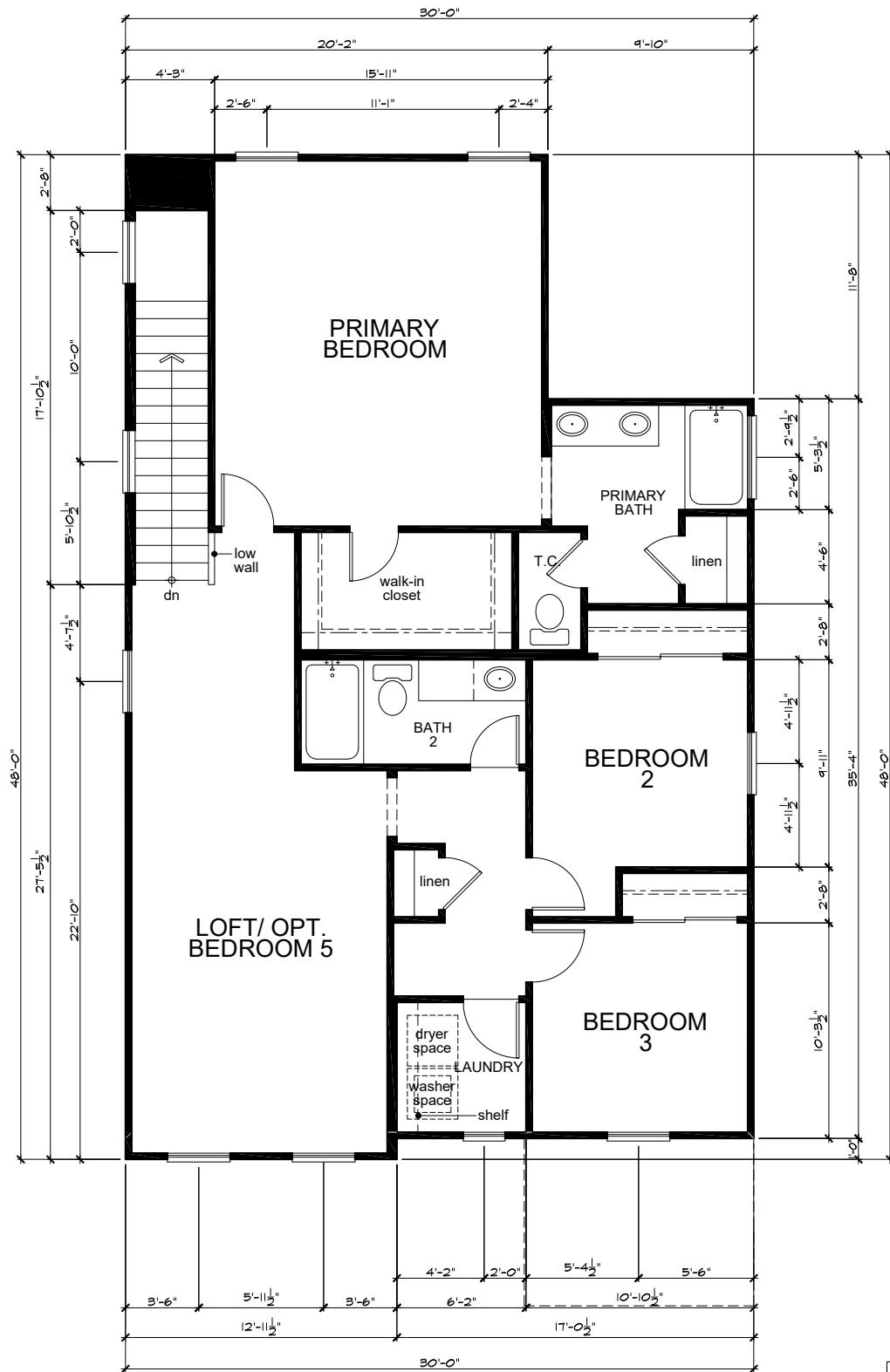


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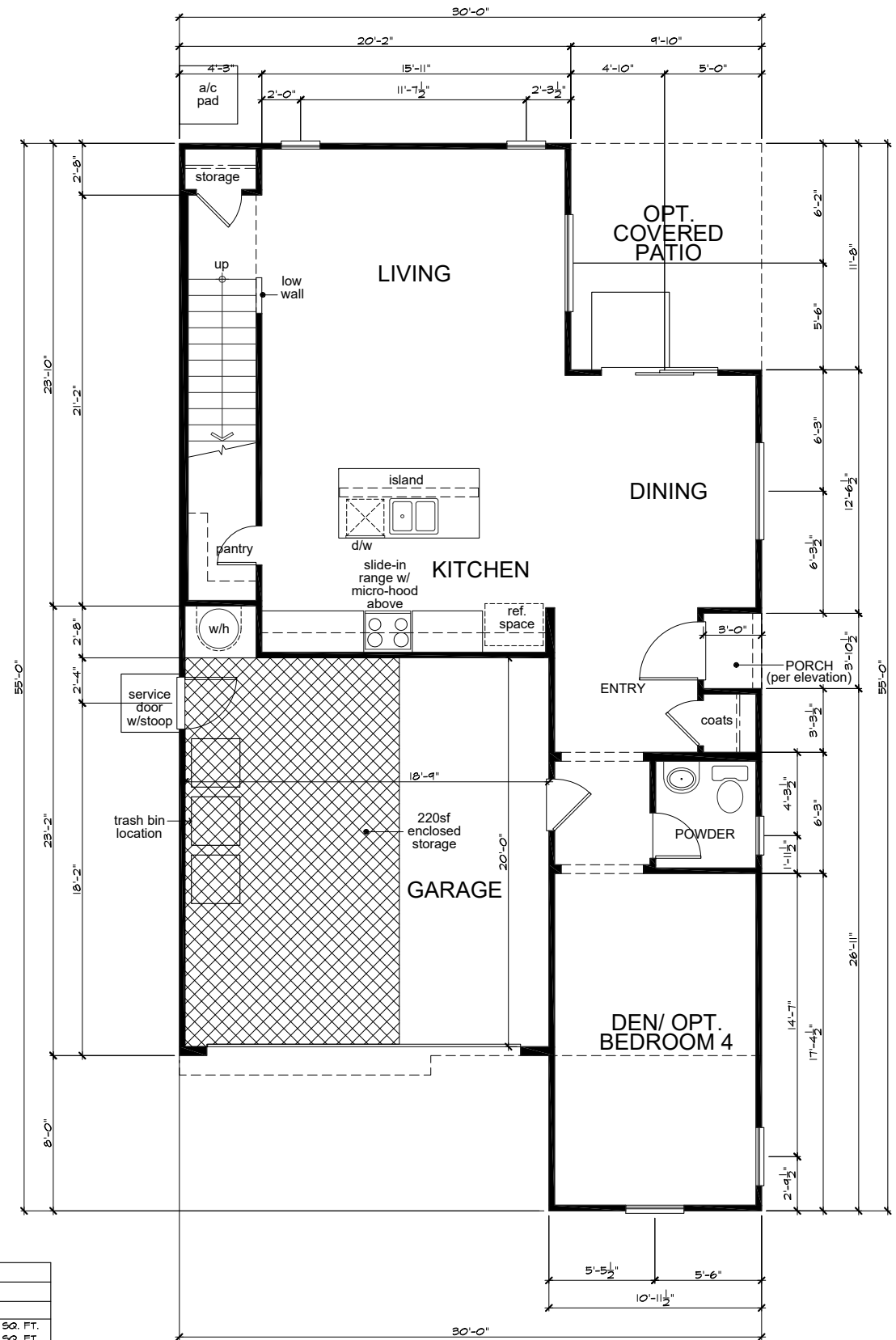


PLAN No. : 230.2198
JOB No. : 600153
STORY: Two Story
March 28, 2024
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Second Floor Plan 'A'

SQUARE FOOTAGE				
PLAN 230.2198				
	A'	B'	C'	SQ. FT.
FIRST FLOOR AREA	970	970	970	SQ. FT.
SECOND FLOOR AREA	1228	1228	1234	SQ. FT.
TOTAL AREA	2198	2198	2204	SQ. FT.
GARAGE AREA	401	401	401	SQ. FT.
PORCH AREA	12	12	12	SQ. FT.
OPTIONS:				
COVERED PATIO	115	115	115	SQ. FT.



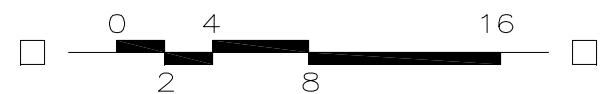
First Floor Plan 'A'



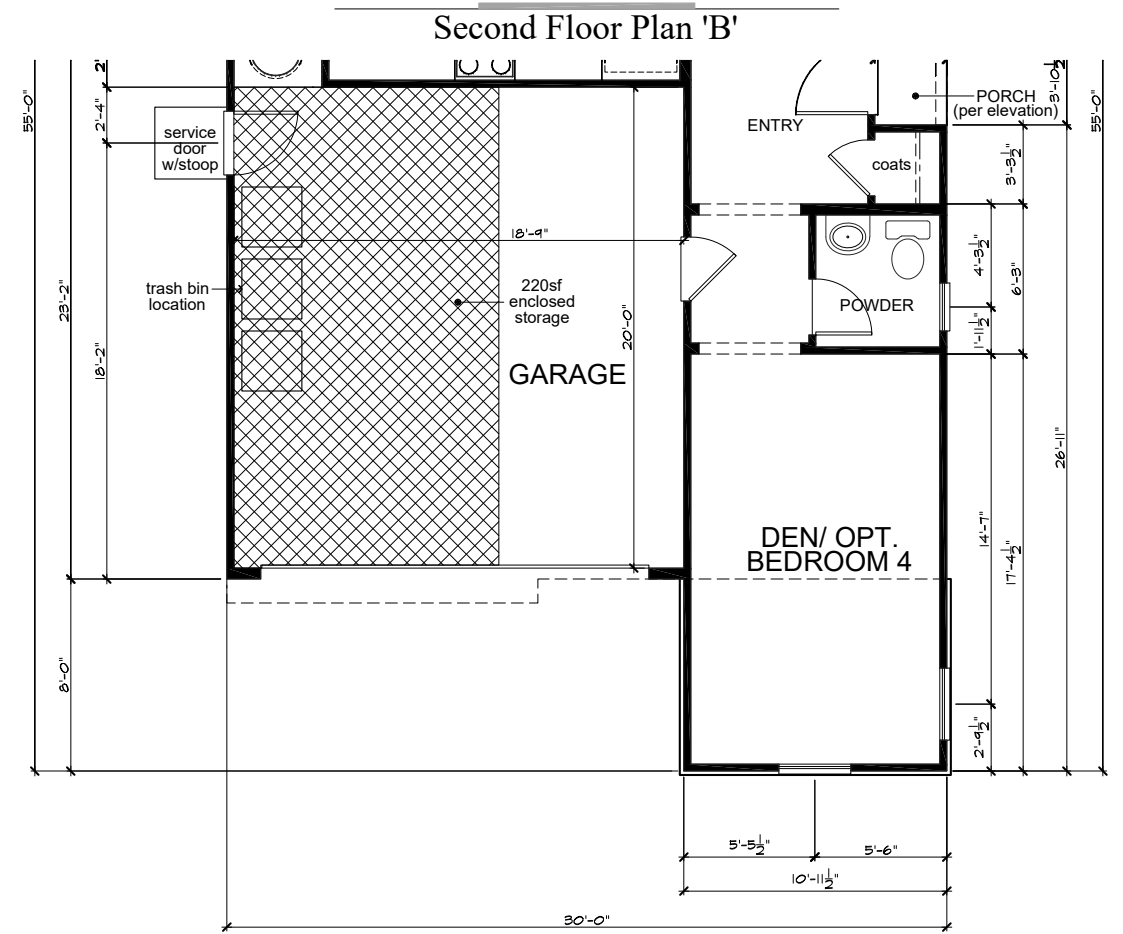
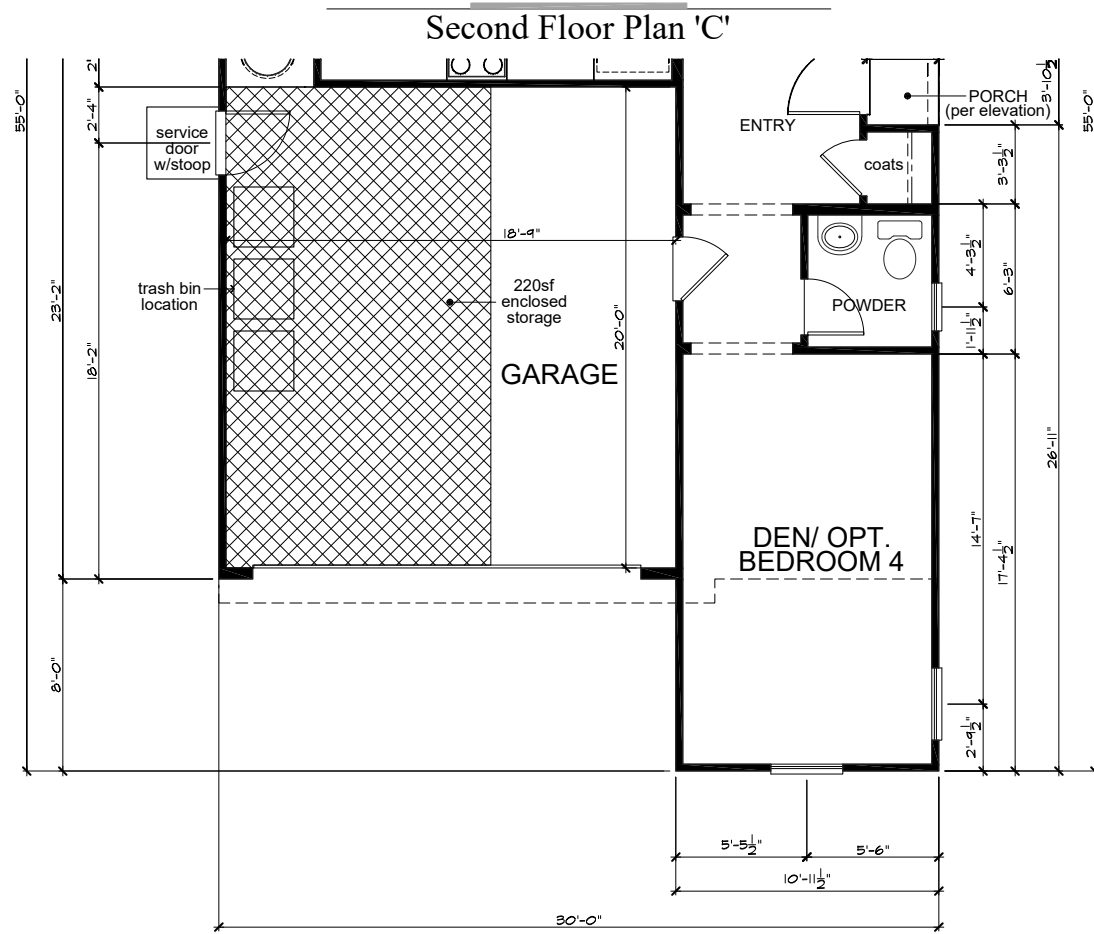
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PLAN No. : 230.2198
JOB No. : 600153
STORY: Two Story
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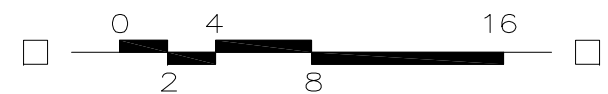


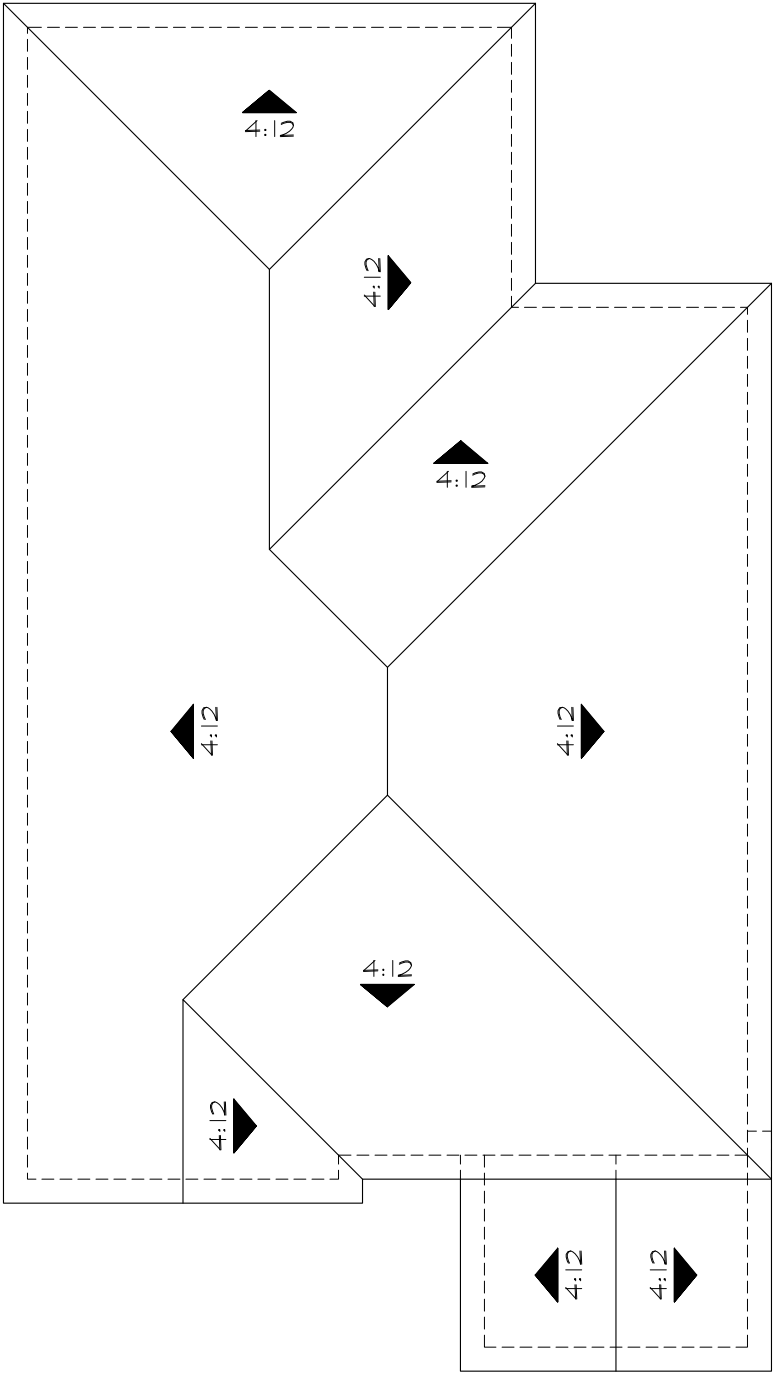
Second Floor Plan 'C'

Second Floor Plan 'B'

First Floor Plan 'C'

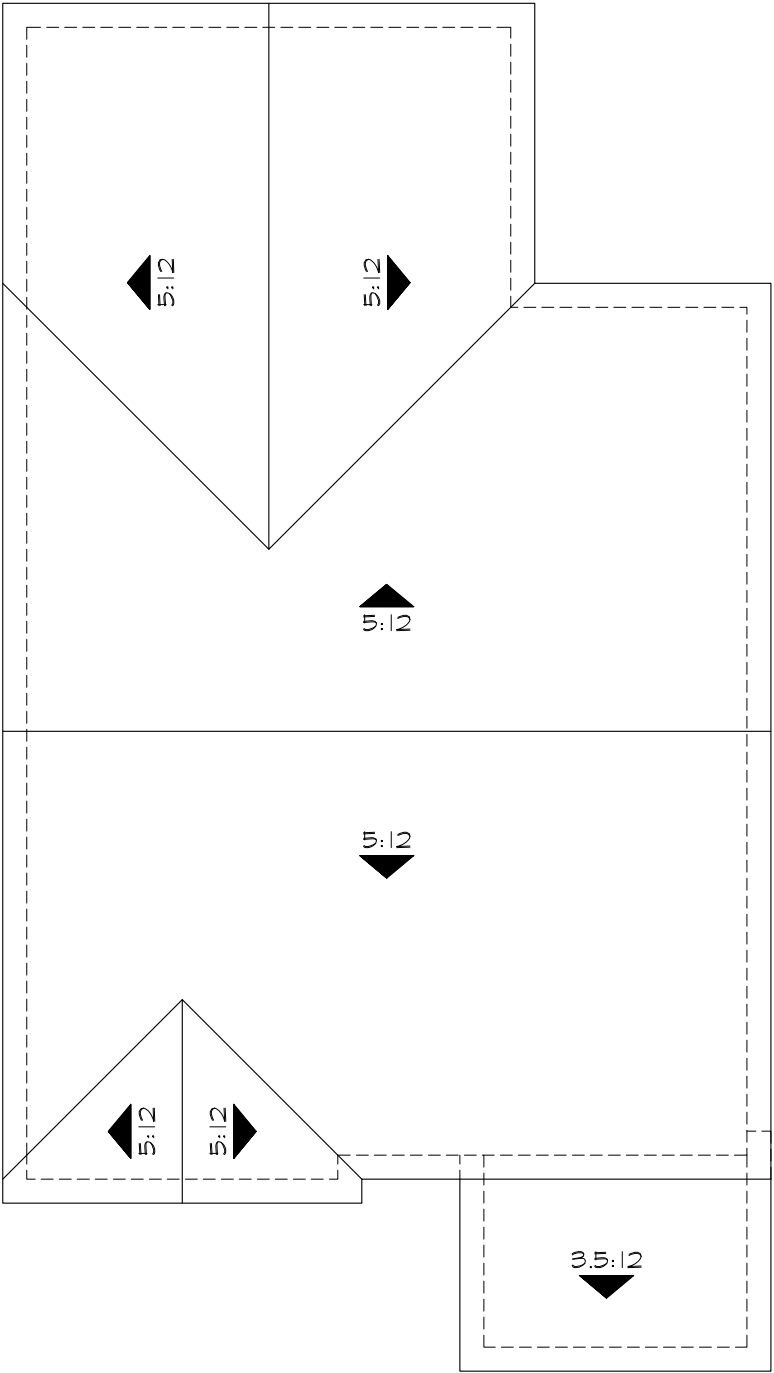
First Floor Plan 'B'





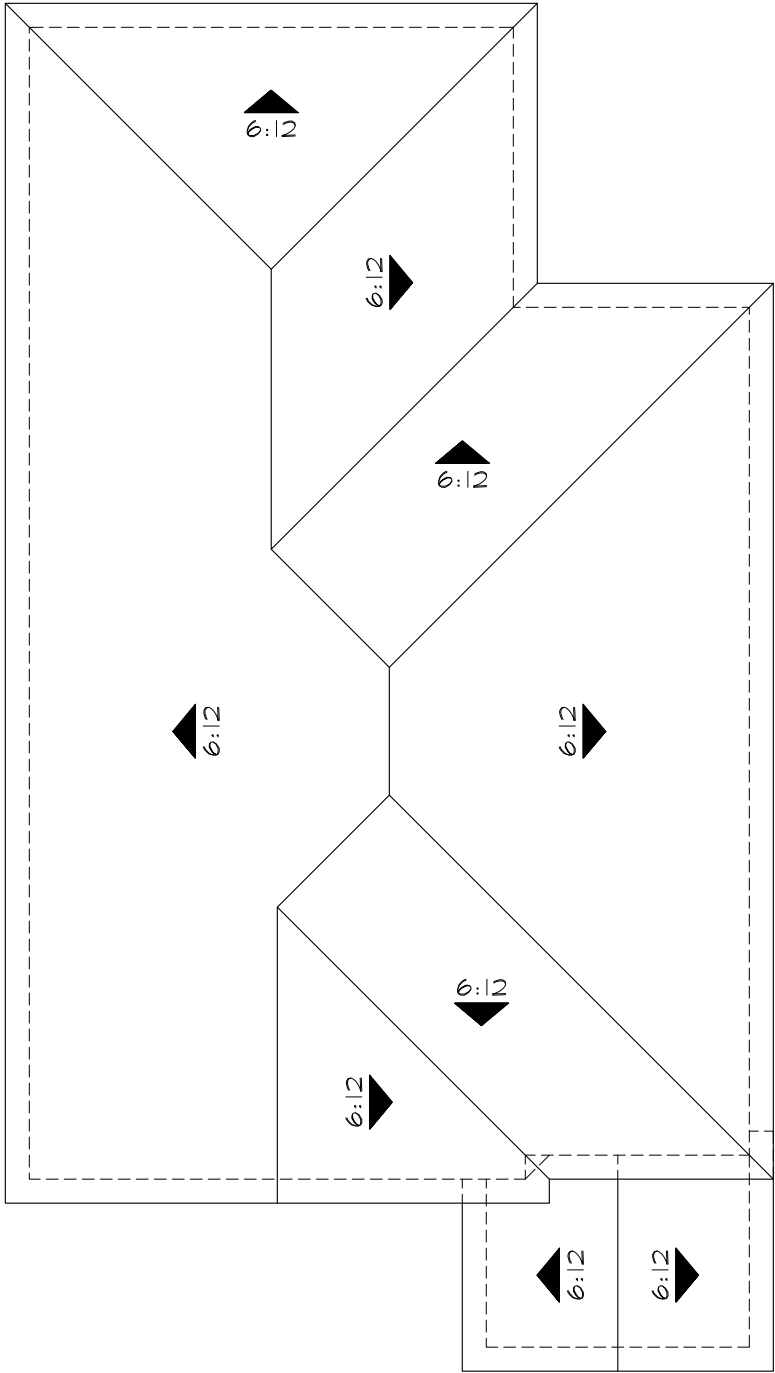
'A'

Roof Area: 1396 SF



'B'

Roof Area: 1396 SF



'C'

Roof Area: 1402 SF

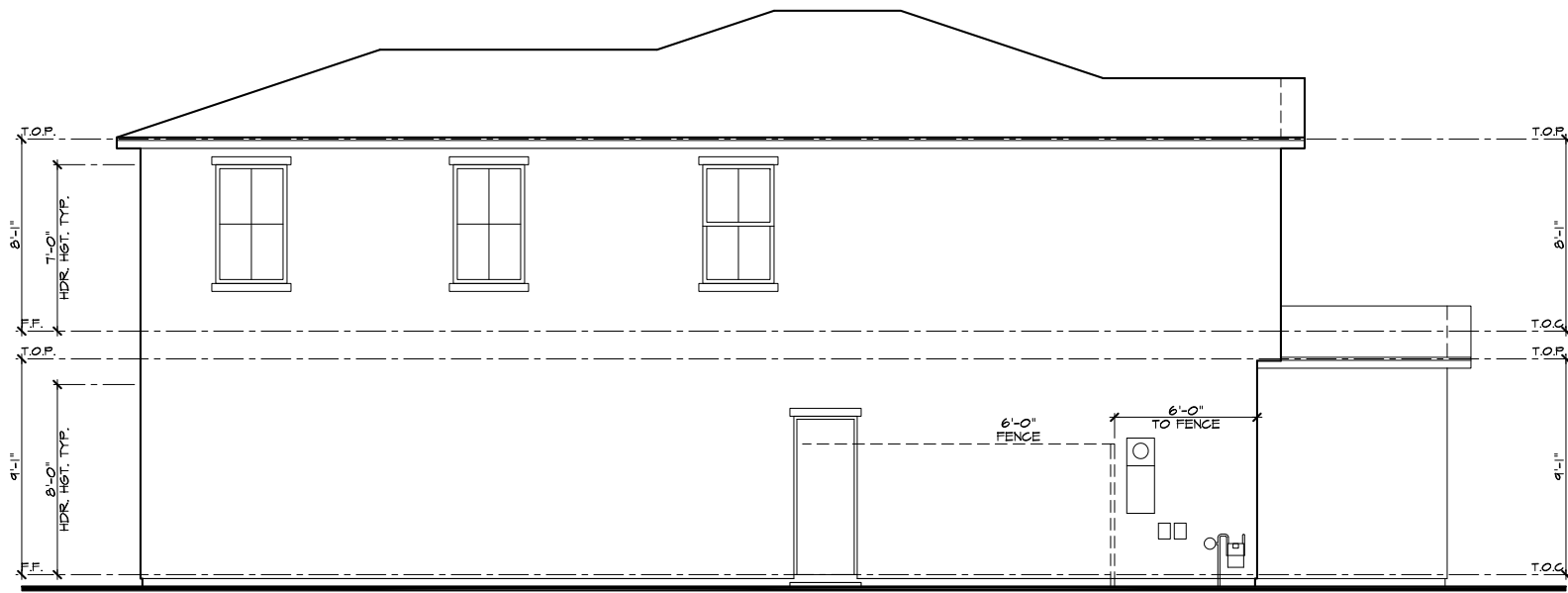
Roof Plans

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Left Elevation 'A'



Front Elevation 'A' - Spanish

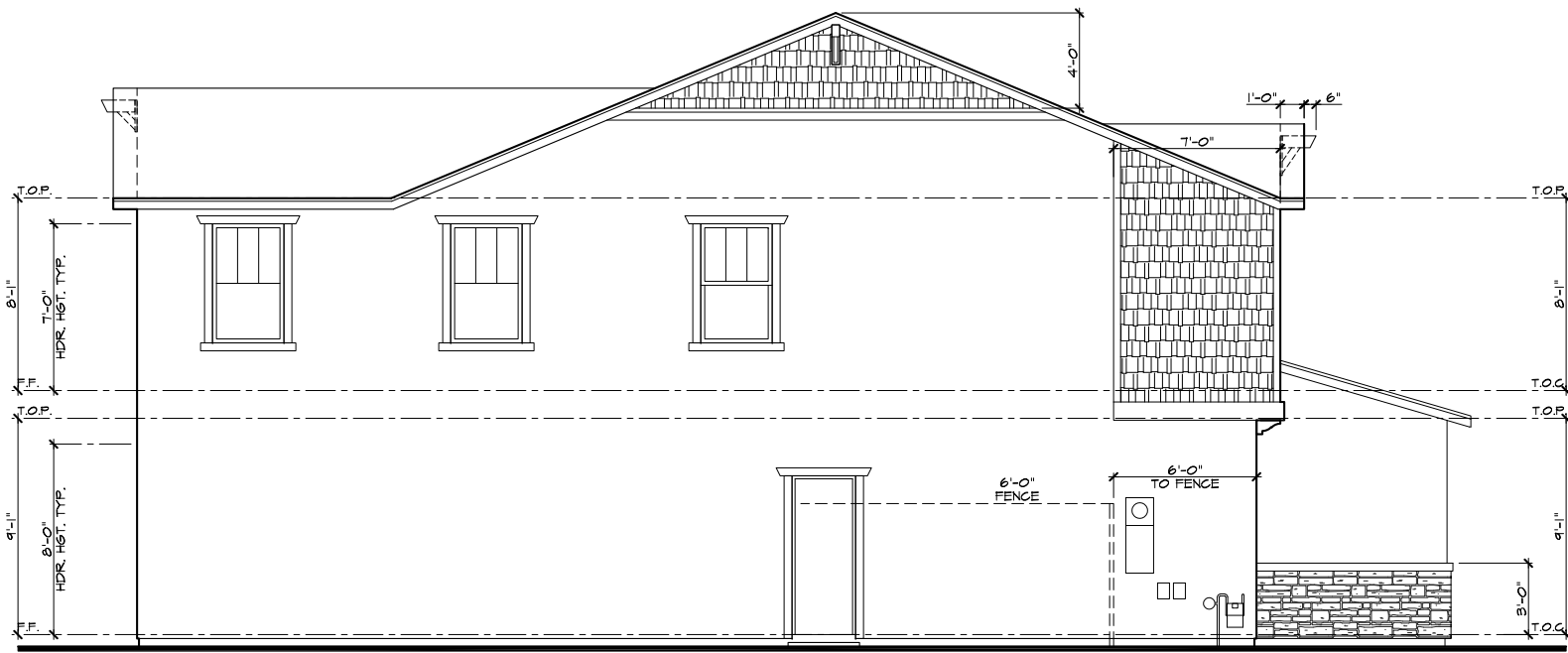


Right Elevation 'A'



Rear Elevation 'A'

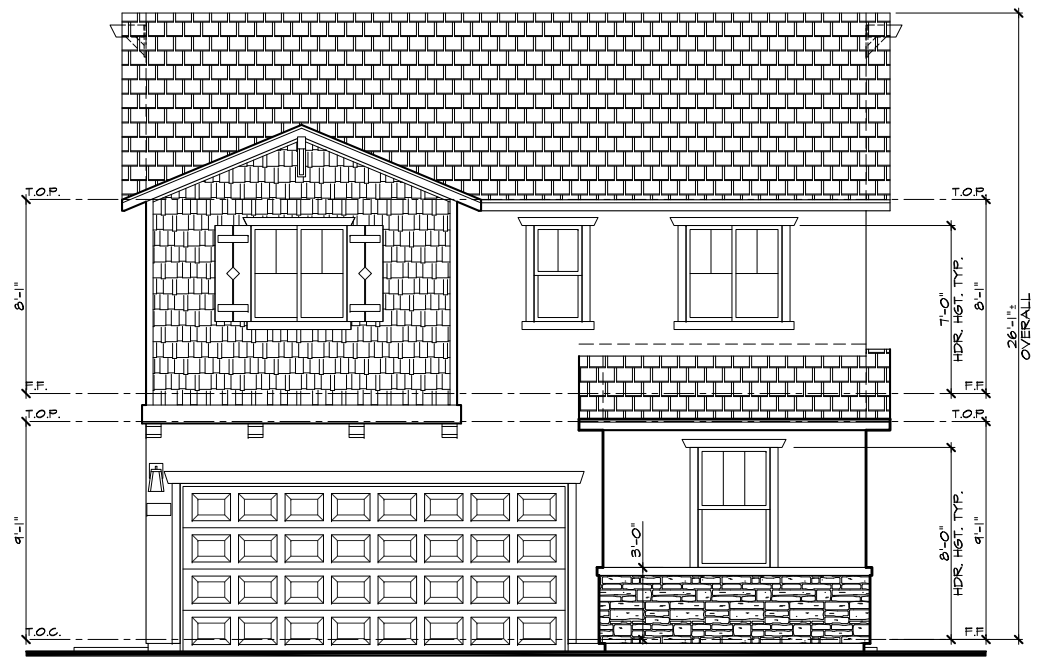




Left Elevation 'B'



Right Elevation 'B'



Front Elevation 'B' - Craftsman



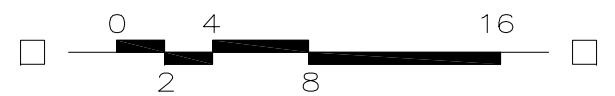
Rear Elevation 'B'



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Fairfield, CA 94534
(707) 389-7500

CITY OF VALLEJO

ROLLINGWOOD



PLAN No. : 230.2198
JOB No. : 600153
STORY: Two Story
March 28, 2024



Left Elevation 'C'



Right Elevation 'C'



Front Elevation 'C' - Farmhouse



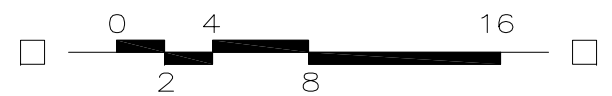
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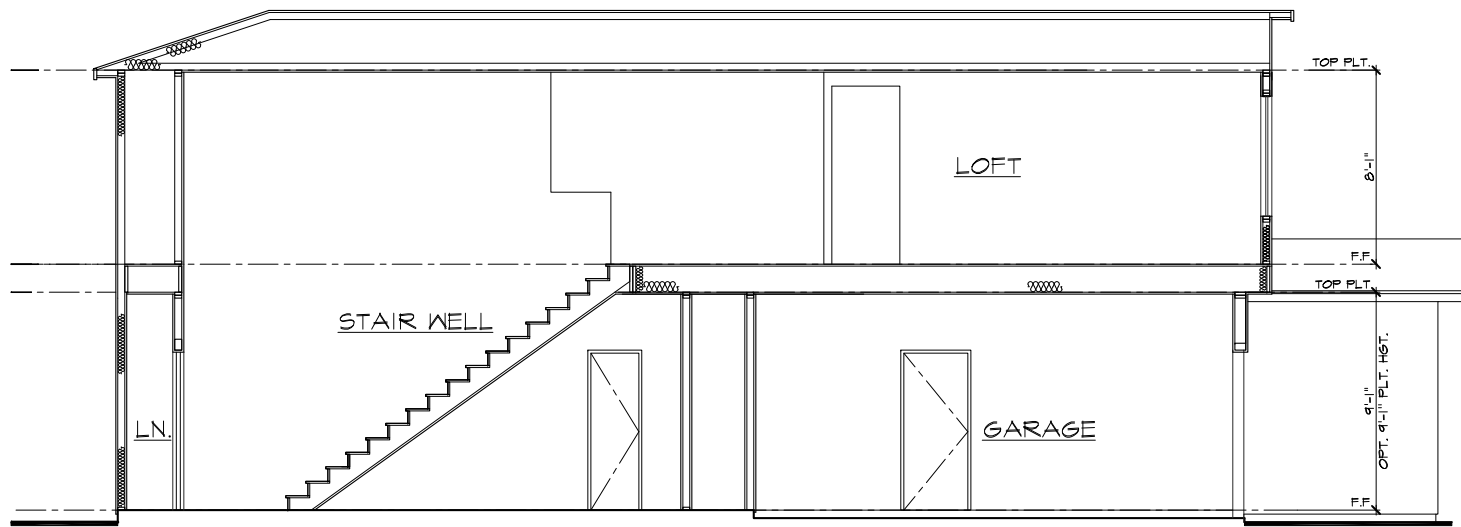
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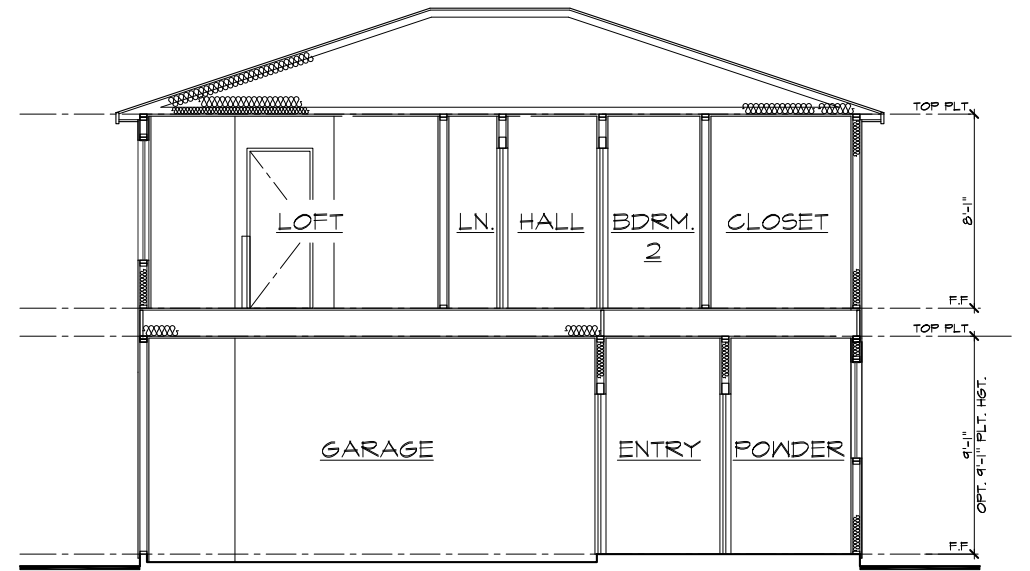
ROLLINGWOOD



PLAN No. : 230.2198
JOB No. : 600153
STORY: Two Story
March 28, 2024



Section B



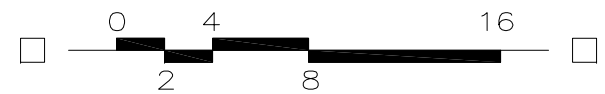
Section A

Building Sections Elevation 'A'

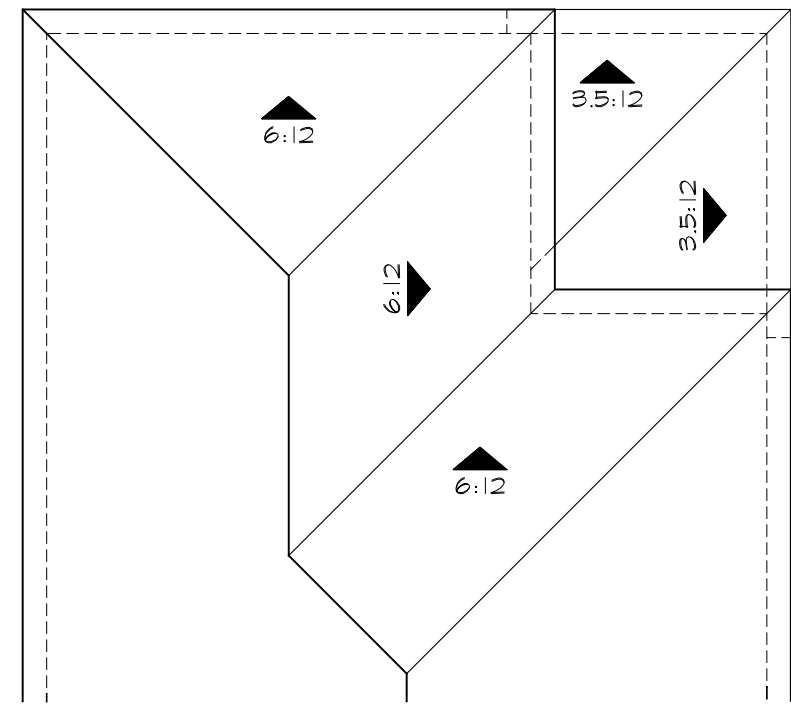
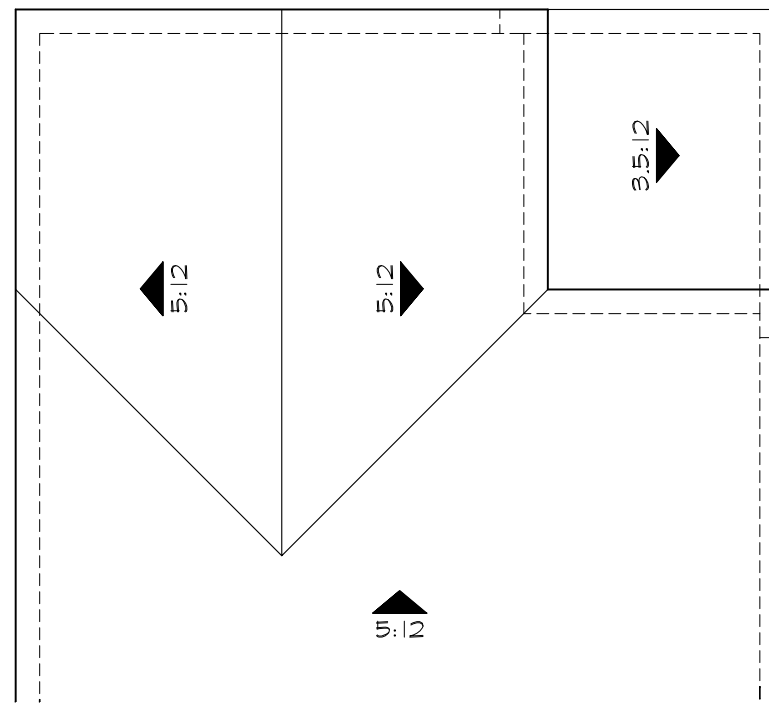
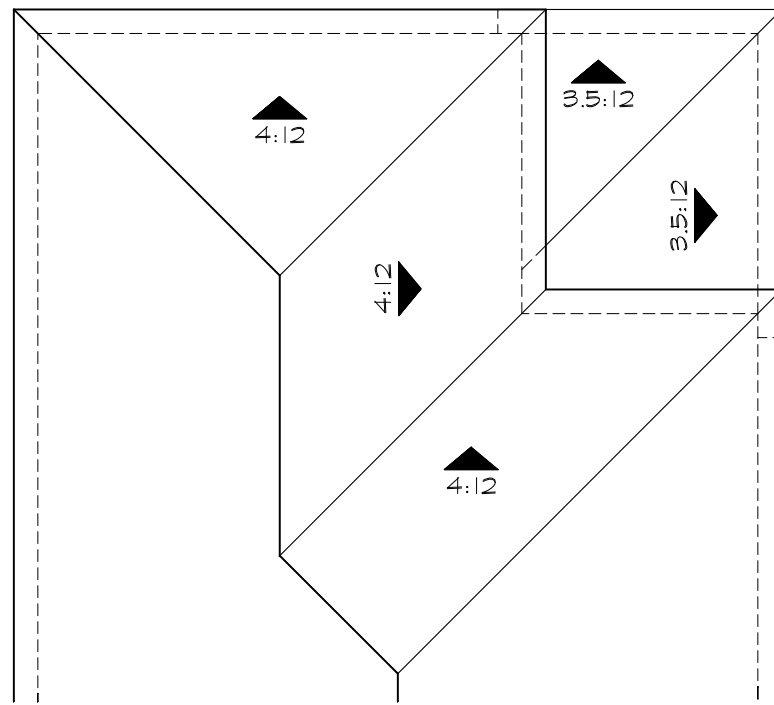


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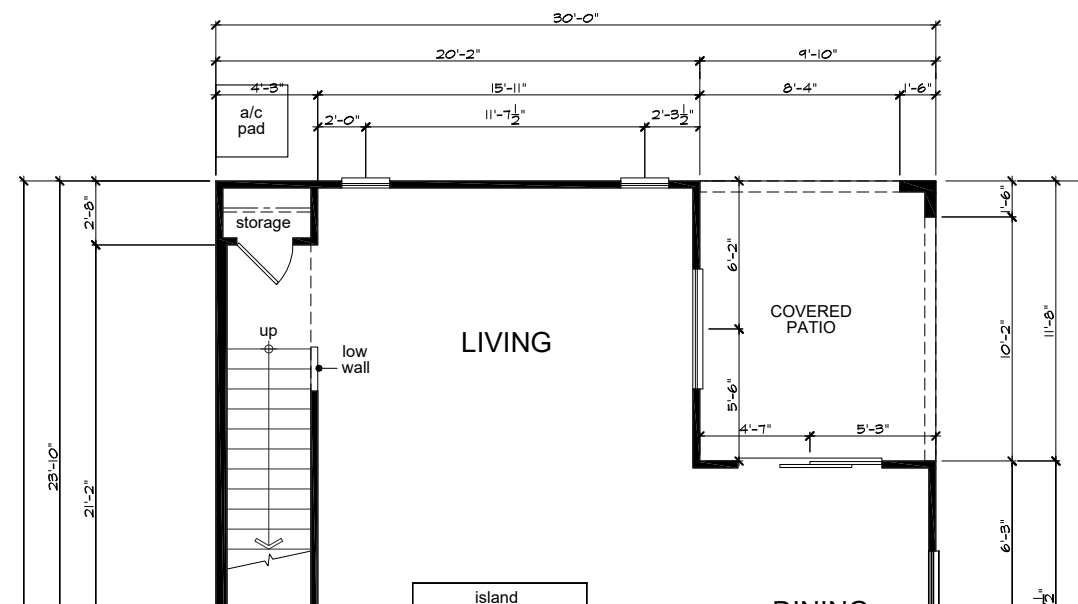
ROLLINGWOOD



PLAN No. : 230.2198
JOB No. : 600153
STORY: Two Story
March 28, 2024

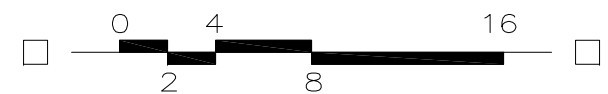


Roof Plans at Covered Patio



Partial Floor Plan at Covered Patio

ROLLINGWOOD





Rear Elevation 'A'



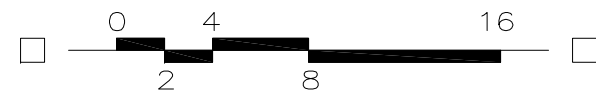
Partial Right Elevation 'A'

Elevations
at Covered Patio



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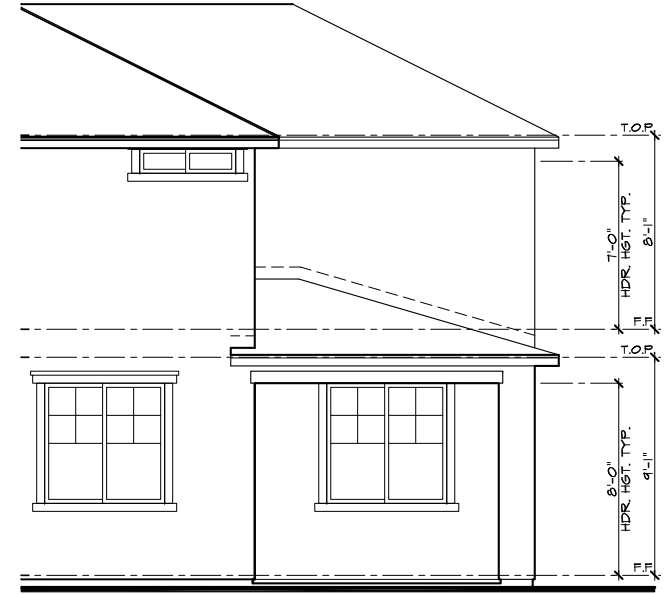
ROLLINGWOOD



PLAN No. : 230.2198
JOB No. : 600153
STORY: Two Story
March 28, 2024



Rear Elevation 'C'



Partial Right Elevation 'C'



Rear Elevation 'B'



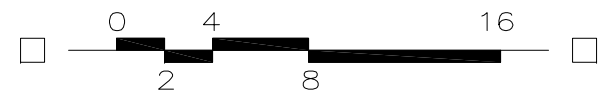
Partial Right Elevation 'B'

Elevations
at Covered Patio



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ROLLINGWOOD



PLAN No. : 230.2198
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STORY: Two Story
March 28, 2024



SPANISH ‘A’ ELEVATIONS

SCHEME 1

ROOF
BARCELONA Casa Grande Blend
1 HBGS 6169

STUCCO
Aesthetic White (SW 7035)

FASCIA / TRIM
Smokehouse (SW 7040)

CLAY PIPE
Aurora Brown (SW 2837)

FRONT ENTRY / SHUTTERS
Lagoon (SW 6480)

GARAGE
Black Bean (SW 6006)

SCHEME 2

ROOF
BARCELONA California Mission Blend
1 HBGS 6464

STUCCO
Muslin (SW 6133)

FASCIA / TRIM
Van Dyke Brown (SW 7041)

CLAY PIPE
Aurora Brown (SW 2837)

FRONT ENTRY / SHUTTERS
Rockwood Dark Red (SW 2801)

GARAGE
Nuthatch (SW 6088)

SCHEME 3

ROOF
BARCELONA Apple Bark
1 HBGS 0431

STUCCO
Latte (SW 6108)

FASCIA
Van Dyke Brown (SW 7041)

TRIM
China Doll (SW 7517)

CLAY PIPE
Aurora Brown (SW 2837)

FRONT ENTRY / SHUTTERS
Peppercorn (SW 7674)

GARAGE
Burnished Brandy (SW 7523)

CRAFTSMAN ‘B’ ELEVATIONS

SCHEME 4

ROOF
SHAKE Smokey Topaz
1 FBGF 3181

STUCCO
Mindful Gray (SW 7016)

FASCIA
Gauntlet Gray (SW 7019)

TRIM
Pearly White (SW 7009)

FRONT ENTRY / SHUTTERS
Flower Pot (SW 6334)

GARAGE
Rhinstone (SW 7656)

SHAKE
Dovetail (SW 7018)

STONE (CULTURED STONE)
LIMESTONE
Bucks County

SCHEME 5

ROOF
SHAKE Charcoal Brown Blend
1 FBGF 1132

STUCCO
Silver Strand (SW 7057)

FASCIA / TRIM
Shell White (SW 8917)

FRONT ENTRY / SHUTTERS
Grays Harbor (SW 6236)

GARAGE
Cornwall Slate (SW 9131)

SHAKE
Retreat (SW 6207)

STONE (CULTURED STONE)
LIMESTONE
Chardonnay

SCHEME 6

ROOF
SHAKE Charcoal Blend
1 FBGF 1430

STUCCO
Online (SW 7072)

FASCIA / TRIM
Spare White (SW 6203)

FRONT ENTRY / SHUTTERS
Brandywine (SW 7710)

GARAGE
Steely Gray (SW 7664)

SHAKE
Grays Harbor (SW 6236)

STONE (CULTURED STONE)
COUNTRY LEDGESTONE
Grand Mesa

FARMHOUSE ‘C’ ELEVATIONS

SCHEME 7

ROOF
SHAKE Dark Ash
1 FBGF 5139

STUCCO
Neutral Ground (SW 7568)

FASCIA / TRIM
Gauntlet Gray (SW 7019)

FRONT ENTRY / SHUTTERS
Iron Ore (SW 7069)

GARAGE
Mindful Gray (SW 7016)

BOARD & BATTEN
Mindful Gray (SW 7016)

SCHEME 8

ROOF
SHAKE Brown Blend
1 FBGF 3233

STUCCO
Dorian Gray (SW 7017)

FASCIA / TRIM
Rhinstone (SW 7656)

FRONT ENTRY / SHUTTERS
Stolen Kiss (SW 7586)

GARAGE
Rhinstone (SW 7656)

BOARD & BATTEN
Rhinstone (SW 7656)

SCHEME 9

ROOF
SHAKE Charcoal Blend
1 FBGF 1430

STUCCO
Simple White (SW 7021)

FASCIA / TRIM
Arcade White (SW 7100)

FRONT ENTRY / SHUTTERS
Inkwell (SW 6992)

GARAGE
Requisite Gray (SW 7023)

BOARD & BATTEN / SIDING
Storm Cloud (SW 6249)

Style Specific Details and Materials

STYLE	GARAGE DOOR	WINDOW GRIDS/ TRIM	SHUTTERS	GABLE END / VENTS	DETAILS
'A' Spanish					• Gable / Hip Roof • Concrete 'S' Tiles • Arched Porch Openings • Clay Pipes • Plank Shutters • Entry Courtyards w/ Porticos • 16-Panel Garage Doors
'B' Craftsman					• Gable Roof • 'Shake' Concrete Tiles • Tapered Columns • Shake Exterior Siding • Stone Veneer • Decorative Outlookers • Decorative Kickers • Shaped Corbels • Plank Shutters w/ Diamond Cut-Out • 32-Panel Garage Doors
'C' Farmhouse					• Gable / Hip Roof • 'Shake' Concrete Tiles • Board & Batten Exterior Siding • Band Trim • Decorative Vents • Entry Courtyards w/ Porticos • Enhanced Header Trim • Plank "Z" Shutters • 16-Panel Garage Doors w/ Slats



Preliminary Arborist Report

201 Rollingwood Drive
Vallejo, CA

PREPARED FOR:
KB Home
4830 Business Center Drive, Suite 150
Fairfield, CA 94534

PREPARED BY:
HortScience | Bartlett Consulting
2550 Ninth Street, Suite 112
Berkeley, CA 94710

September 2023



Preliminary Arborist Report

201 Rollingwood Drive
Vallejo, CA

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Exhibits

Tree Assessment Form

Tree Assessment Map

Preliminary Arborist Report

201 Rollingwood Drive
Vallejo, CA

Introduction and Overview

KB Home is preparing plans to develop the subject property in Vallejo, CA. The site was largely undeveloped with trees concentrated near the perimeter and sporadically throughout the center where four baseball fields were located. HortScience | Bartlett Consulting (Divisions of The F. A. Bartlett Tree Expert Co.) was asked to prepare a **Preliminary Arborist Report** for the project site for submission to the City of Vallejo.

This report provides the following information:

1. An assessment of tree health, structure and suitability for preservation.
2. An estimate of the value of each tree.
3. A preliminary assessment of the impacts of constructing the proposed project and recommendations for action.
4. Preliminary tree preservation guidelines.

Assessment Methods

Trees were assessed on August 23, 2023. As required by the City of Vallejo, trees 6 inches and greater in diameter were included in the assessment. The assessment procedure consisted of the following steps:

1. Identifying the tree species;
2. Tagging each tree with an identifying number and recording its location on a map;
3. Measuring the trunk diameter at a point 54 inches above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5:
 - 5 - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
 - 4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
 - 3 - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as “high”, “moderate” or “low”. Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.
 - High:** Trees with good health and structural stability that have the potential for longevity at the site.
 - Moderate:** Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in ‘good’ category.
 - Low:** Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

Forty-four (44) trees were assessed, representing a diverse population of 17 species (Table 1). While 31 trees were noted as being on-site and 13 as off-site, these are only educated guesses as the property line was not well-defined. Coast live oak was the most common species with 12 trees, followed by Arizona cypress with eight. No other species was represented by more than four trees. Trees were generally concentrated near the perimeter of the site near other development, leaving the center open. Descriptions of each tree are found in the **Tree Assessment Form** and approximate locations are shown on the **Tree Assessment Map** (see **Exhibits**). Overall, eight trees were in good condition, five were in fair condition, and 15 were in poor condition (Table 1).

**Table 1: Condition ratings and frequency of occurrence of trees
201 Rollingwood Drive, Vallejo CA.**

Common Name	Scientific Name	Condition			Total
		Poor (1-2)	Fair (3)	Good (4-5)	
Incense cedar	<i>Calocedrus decurrens</i>	3	-	-	3
Deodar cedar	<i>Cedrus deodara</i>	-	-	1	1
Arizona cypress	<i>Cupressus arizonica</i>	4	4	-	8
Blue gum	<i>Eucalyptus globulus</i>	-	2	1	3
English walnut	<i>Juglans regia</i>	1	1	-	2
Western juniper	<i>Juniperus occidentalis</i>	-	1	-	1
Glossy privet	<i>Ligustrum lucidum</i>	-	1	-	1
Mulberry	<i>Morus</i> sp.	1	-	-	1
Avocado	<i>Persea americana</i>	-	-	1	1
Canary Island date palm	<i>Phoenix canariensis</i>	-	-	1	1
Monterey pine	<i>Pinus radiata</i>	2	2	-	4
Chinese pistache	<i>Pistacia chinensis</i>	-	-	1	1
London plane	<i>Platanus x hispanica</i>	-	1	-	1
Coast live oak	<i>Quercus agrifolia</i>	2	1	9	12
Holly oak	<i>Quercus ilex</i>	-	1	-	1
Valley oak	<i>Quercus lobata</i>	-	-	1	1
Siberian elm	<i>Ulmus pumila</i>	2	-	-	2
Total		15	14	15	44

Of the 12 coast live oaks, nine were in good condition, #30 was in fair condition, and #23 and 31 were in poor condition. Development stage ranged from young to mature, indicated by trunk diameters ranging from 2 to 30 inches. Oaks in good condition had vigorous growth and good structure (Photo 1). Those in fair or poor condition had structural defects such as a pronounced lean or a seam below large, codominant stems. Four oaks (#18, 21, 22, and 30) appeared to be growing off-site but overhung the subject property.

Photo 1: Coast live oak #18 was in excellent condition with a full, vigorous crown.



Four Arizona cypresses were in fair condition and four were in poor condition. The cypresses were semi-mature in development with trunk diameters between 11 and 17 inches. Trees in fair condition had structural defects such as a lean due to crowding, codominant trunks, or no central leader. Poor condition cypresses had more severe defects including moderate twig and branch dieback or a history of stem failure (Photo 2).

Photo 2: Arizona cypress #11 was in poor condition, having partially failed in the past.

Of the four Monterey pines, two were in fair condition (#39 and 40) and two were in poor condition (#41 and 42). Each was semi-mature in development with a trunk diameter measuring between 12 – 17 inches. Two or more stems arose from approximately 5 – 6 feet on each tree. Pines #39 and 41 had evidence of boring insect damage.

The remaining 14 species were represented by three trees or fewer:

- Off-site incense cedars #34 – 36 were in poor condition with poor structure created by utility line clearance pruning. Each had a 20-inch diameter trunk.
- Deodar cedar #17 was a good young tree with a 10-inch diameter trunk.
- Blue gums #12 – 14 were the largest trees on-site with individual trunk diameters ranging from 17 to 75 inches. Tree #13 was in good condition while #12 and 14 were in fair condition.
- English walnut #29 and 32 had many stems originating at the base measuring between 3 – 9 inches. Tree #29 was in fair condition with vigorous growth while #32 was in poor condition with extensive twig and branch dieback.

- Western juniper #20 was in fair condition with multiple branches arising from a single attachment point at 2 feet. The off-site tree overhung the site by approximately 12 feet.
- Glossy privet #38 grew off-site, overhanging the subject property by approximately 5 feet. Structure consisted of many small stems measuring between 2 – 7 inches.
- Mulberry #44 was in poor condition with extensive trunk decay (Photo 3). The trunk measured 21 inches in diameter.

Photo 3: Mulberry #44 had a heavily decayed trunk.



- Avocado #37 was in good condition, growing off-site. The vigorous crown overhung the subject property by approximately 6 feet. It measured 15 inches in trunk diameter.
- Canary Island date palm #33 had a 40-inch trunk. The tree was in overall good condition and leaned slightly to the south.
- Chinese pistache #15 was a mature off-site tree, measuring 12 inches in diameter. It was in good condition with a vigorous, rounded crown.
- London plane #7 was in fair condition with good vigor. The tree's 7-inch diameter trunk bowed to the northeast.
- Siberian elm #26 had codominant trunks measuring 7 and 4 inches and was in poor condition. The tree was failing to the south. Elm #27 was also in poor condition and failing to the south, but was more mature in development. Many stems arose from the base, measuring between 4 – 18 inches.
- Holly oak #28 had four stems originating from the base, measuring between 9 – 13 inches. It was in fair condition with a westward lean and a vigorous crown.
- Valley oak #25 was in good condition with a full, vigorous crown. Two trunks arose from the base measuring 8 and 6 inches.

Protected Trees in Vallejo

The City of Vallejo Municipal Code 10.12 protects trees on any street, park, pleasure ground, boulevard, alley or public place of the City. Code 16.504.07 protects trees on non-residential zoning sites exceeding 24 inches in diameter measured 6 inches above grade. The subject property does not contain lands mentioned in Code 10.12. Jerry Marcus, KB Homes, communicated that the subject site is zoned as Residential Medium Density (RMD). Based on this definition, none of the 44 assessed trees are *Protected*. Tree protection designations for individual trees are provided in the ***Tree Assessment*** (see *Exhibits*).

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. For trees growing in open fields, away from areas where people and property are present, structural defects and/or poor health present a low risk of damage or injury if they fail.

We must be concerned, however, about safety in use areas. Therefore, where development encroaches into existing plantings, we must consider their structural stability as well as their potential to grow and thrive in a new environment. Where development will not occur, the normal life cycles of decline, structural failure, and death should be allowed to continue.

Evaluation of suitability for preservation considers several factors:

- **Tree health**

Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than non-vigorous trees are. For example, Arizona cypress #9 was all but dead. The tree would not tolerate construction impacts as well as coast live oak #16 which was in excellent condition.

- **Structural integrity**

Trees with significant amounts of wood decay and other structural defects that cannot be corrected are more likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. For example, mulberry #44 was heavily decayed. This tree should not be preserved in a use area.

- **Species response**

There is a wide variation in the response of individual species to construction impacts and changes in the environment. For example, coast live oak is tolerant of root severance, but intolerant of general construction impacts such as fill soil, heavy pruning, and summer irrigation. Monterey pine is intolerant of root severance and requires supplemental irrigation following disturbance.

- **Tree age and longevity**

Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change. For example, deodar cedar #17 was young in development and would respond better to change than blue gum #13 which was mature.

- **Invasiveness**

Species which spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (<https://www.cal-ipc.org/pafi/>) lists species identified as being invasive. Vallejo is part of the Central West Floristic Province. Blue gum and glossy privet have limited invasive potential. .

Each tree was rated for suitability for preservation based upon its age, health, structural condition, and ability to safely coexist within a development environment (Table 2).

**Table 2: Tree suitability for preservation.
201 Rollingwood Drive, Vallejo**

High	Trees in good health and with structural stability that have the potential for longevity at the site. Eleven (11) trees had high suitability for preservation: avocado #37, Chinese pistache #35, seven coast live oaks, deodar cedar #17, and valley oak #25.
Moderate	Trees in fair health and/or with structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter lifespans than those in the “high” category. Six trees had moderate suitability for preservation: Canary Island pine #33, coast live oaks #8, 24, and 30, London plane #43, and western juniper #20.
Low	Trees in poor health or with significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Twenty-seven (27) trees had low suitability for preservation: eight Arizona cypresses, blue gums #12 – 14, coast live oaks #23 and 31, English walnuts #29 and 32, glossy privet #38, holly oak #28, incense cedars #34 – 36, four Monterey pines, mulberry #44, and Siberian elms #26 and 27.

We consider trees with high suitability for preservation to be the best candidates for preservation. We do not normally recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Preliminary Evaluations of Impacts and Recommendations

Appropriate tree retention develops a practical match between the location and intensity of construction activities with the quality and health of trees. The **Tree Assessment** was the reference point for tree condition and quality. Impacts from construction were estimated given the project information available to date. To evaluate impacts from the project, I reviewed the preliminary grading plan provided by the client (*Vesting Tentative Map, cbg Civil Engineers, dated August 2023*) depicting the proposed development. Trunk locations were not pictured on the plan.

Plans were preliminary in nature. As such, the assessment of impacts to trees is preliminary. The development plans show the entire property being graded and developed. The existing baseball fields and associated small structures will be demolished and developed into 130 residential lots. Several roads and cul-de-sacs will run throughout the property. One detention basin and one bioretention basin are proposed for the west and northwest portions of the site, respectively.

Based on my review of the plans, I recommend removal of the 31 on-site trees and preservation of the 13 off-site trees. On-site trees were in areas planned for demolition and construction. Preservation of any of these trees would require substantial redesign of the proposed project.

The 13 off-site trees may be impacted by the proposed project. Precise trunk locations were unknown. Assuming that these trees are not within or immediately adjacent to excavation required for construction, I expect them to survive any required root and crown loss. I recommend that tree locations be accurately surveyed to determine ownership of border trees. Several appear to be near or on the property line boundary.

The retention of all trees identified for preservation is predicated on adherence to the **Preliminary Tree Preservation Guidelines**. Some amount of crown and root pruning may be required for these trees.

**Table 3: Preliminary Tree Disposition
201 Rollingwood Drive, Vallejo**

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Disposition	Comments
1	Coast live oak	7	No	Remove	Within project area
2	Arizona cypress	14	No	Remove	Within project area
3	Arizona cypress	12	No	Remove	Within project area
4	Arizona cypress	12	No	Remove	Within project area
5	Coast live oak	6	No	Remove	Within project area
6	Arizona cypress	14,13	No	Remove	Within project area
7	Arizona cypress	13	No	Remove	Within project area
8	Coast live oak	12	No	Remove	Within project area
9	Arizona cypress	11	No	Remove	Within project area
10	Arizona cypress	12	No	Remove	Within project area
11	Arizona cypress	17	No	Remove	Within project area
12	Blue gum	75	No	Preserve	Off-site
13	Blue gum	66	No	Remove	Within project area
14	Blue gum	48,23,17	No	Remove	Within project area
15	Chinese pistache	12	No	Preserve	Off-site
16	Coast live oak	6,4	No	Remove	Within project area
17	Deodar cedar	10	No	Preserve	Off-site
18	Coast live oak	23,20	No	Preserve	Off-site
19	Coast live oak	9,4	No	Remove	Within project area
20	Western juniper	15,10,10,6	No	Preserve	Off-site
21	Coast live oak	17	No	Preserve	Off-site
22	Coast live oak	21,19	No	Preserve	Off-site
23	Coast live oak	12	No	Remove	Within project area
24	Coast live oak	6,2	No	Remove	Within project area
25	Valley oak	8,6	No	Remove	Within project area
26	Siberian elm	7,4	No	Remove	Within project area

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Disposition	Comments
27	Siberian elm	18,10,8,8,6,6,5,4,4,4	No	Remove	Within project area
28	Holly oak	13,12,10,9	No	Remove	Within project area
29	English walnut	7,7,6,6,6,6,5,5,4,4,3,3,3	No	Remove	Within project area
30	Coast live oak	30	No	Preserve	Off-site
31	Coast live oak	10,6,5,4	No	Remove	Within project area
32	English walnut	9,8,7,7,7,7,6,6	No	Remove	Within project area
33	Canary Island date palm	40	No	Remove	Within project area
34	Incense cedar	20	No	Preserve	Off-site
35	Incense cedar	20	No	Preserve	Off-site
36	Incense cedar	20	No	Preserve	Off-site
37	Avocado	15	No	Preserve	Off-site
38	Glossy privet	7,4,4,4,4,3,3,2,2	No	Preserve	Off-site
39	Monterey pine	17	No	Remove	Within project area
40	Monterey pine	14	No	Remove	Within project area
41	Monterey pine	12	No	Remove	Within project area
42	Monterey pine	16	No	Remove	Within project area
43	London plane	7	No	Remove	Within project area
44	Mulberry	21	No	Remove	Within project area

Tree Preservation Guidelines

All on-site trees will be removed. Trees located off-site but close to the project boundary will be retained. The following recommendations will help reduce impacts to trees from development as well as maintain and improve their health and vitality through the clearing, grading, and construction phases. The key elements of a tree preservation plan for the 201 Rollingwood Drive project would include:

Design recommendations

1. Establish the surveyed location of trees near the property boundary to determine ownership.
2. The project's perimeter security fence will also serve as the **TREE PROTECTION ZONE**. No grading, excavation, construction, or storage of materials should occur outside the project limit. Route underground services including utilities, sub-drains, water or sewer around the **TREE PROTECTION ZONE**. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury.
3. Allow the Consulting Arborist to review all future project submittals including grading, utility, drainage, irrigation, and landscape plans.
4. Use only herbicides safe for use around trees and labeled for that use, even below pavement.
5. Design irrigation systems so that no trenching will occur within the **TREE PROTECTION ZONE**.

Pre-construction and pre-demolition treatments and recommendations

1. The demolition contractor shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.
2. Off-site trees to be preserved may require pruning to provide clearance for demolition, grading and construction. Tree care firm providing the pruning shall be a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the latest edition of the Best Management Practices for Pruning (International Society of Arboriculture) and the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
3. Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain shall be removed by a Certified Arborist or Certified Tree Worker and not by the demolition contractor. The Certified Arborist or Certified Tree Worker shall remove the trees in a manner that causes no damage to the tree(s) and understory to remain.
4. Trees to be removed shall be felled so as to fall away from Tree Protection Zone and avoid pulling and breaking of roots of off-site trees to remain. If roots are entwined, the Consulting Arborist may require first severing the major woody root mass before extracting the trees.
5. All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent feasible tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

Tree protection during construction

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
2. Trees to be preserved must be irrigated on a regular basis. Do not irrigate coast live oaks during the summer period as this can encourage fungal growth.
3. Trees to be removed shall be felled so as to fall away from **TREE PROTECTION ZONE** and avoid pulling and breaking of roots of trees to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the trees, or grinding the stump below ground.
4. Any grading, construction, demolition or other work that is expected to encounter roots of trees to be preserved should be monitored by the Consulting Arborist.
5. If injury occurs to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
6. Fences are to remain until all sitework has been completed. Fences may not be relocated or removed without permission of the project superintendent.
7. Construction trailers, traffic and storage areas must remain outside fenced areas at all times.
8. No materials, equipment, soil, waste or wash-out water may be deposited, stored, or parked within the **TREE PROTECTION ZONE** (fenced area).
9. Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.
10. Any roots damaged during grading or construction shall be exposed to sound tissue and cut cleanly with a saw.

Maintenance of impacted trees

Preserved trees will experience a physical environment different from that of pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. Inspect trees annually and following major storms to identify conditions requiring treatment to manage risk associated with tree failure.

Our procedures included assessing trees for observable defects in structure. This is not to say that trees without significant defects will not fail. Failure of apparently defect-free trees does occur, especially during storm events. Wind forces, for example, can exceed the strength of defect-free wood causing branches and trunks to break. Wind forces coupled with rain can saturate soils, reducing their ability to hold roots, and blow over defect-free trees. Although we cannot predict all failures, identifying those trees with observable defects is a critical component of enhancing public safety.

Furthermore, trees change over time. Our inspections represent the condition of the tree at the time of inspection. As trees age, the likelihood of failure of branches or entire trees increases. Annual tree inspections are recommended to identify changes to tree health and structure. In addition, trees should be inspected after storms of unusual severity to evaluate damage and structural changes. Initiating these inspections is the responsibility of the client and/or tree owner.

If you have any questions about my observations or recommendations, please contact me.

HortScience | Bartlett Consulting



Ryan Suttle, Consulting Arborist & Urban Forester
ISA Board Certified Master Arborist, Utility Specialist No. WE-12647BU
ISA Tree Risk Assessment Qualified

HortScience | Bartlett Consulting



Brenda Wong, Consulting Arborist and Urban Forester
ISA Certified Arborist WE-12933A
ISA Tree Risk Assessment Qualified



Exhibits

Tree Assessment Form

Tree Assessment Map



Tree Assessment

201 Rollingwood Dr.
Vallejo, CA
August 23, 2023



Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
1	Coast live oak	7	No	4	High	Slight trunk lean east; codominant trunks arise from 6'; full healthy round crown.
2	Arizona cypress	14	No	3	Low	No central leader; moderate twig and branch dieback; extensive sap bleeding.
3	Arizona cypress	12	No	2	Low	Codominant trunks arise from 5'; poor branch structure; moderate twig and branch dieback.
4	Arizona cypress	12	No	2	Low	Leans S over fence; poor form and structure; bleeding sap; branches intertwined with #5.
5	Coast live oak	6	No	4	High	Sinuous trunk; high narrow crown; few lateral branches; extremely crowded.
6	Arizona cypress	14,13	No	3	Low	Codominant trunks arise from base; sparse crown; small twig and branch dieback; bleeding sap.
7	Arizona cypress	13	No	3	Low	Slightly crowded; 2' from fence; slightly sparse crown; bleeding sap.
8	Coast live oak	12	No	4	Moderate	Codominant trunks arise from 9'; leans E; suppressed; #9 failed into trunk; <1' from fence; vigorous.
9	Arizona cypress	11	No	1	Low	Failed against fence; all but dead.
10	Arizona cypress	12	No	3	Low	Trunk leans NW; small twig dieback; healthy vigorous crown.
11	Arizona cypress	17	No	2	Low	Multiple attachments at 4'; failed S; laying on ground; bleeding sap; vigorous.
12	Blue gum	75	No	3	Low	Off-site growing into fence; tagged on fence; multiple attachments at 10'; branches overhanging site ~35'.
13	Blue gum	66	No	4	Low	Poor branch structure; vigorous wide-spreading crown; small twig and branch dieback.
14	Blue gum	48,23,17	No	3	Low	Multiple stems arise at base; poor structure; moderate twig and branch dieback; vigorous wide-spreading crown.
15	Chinese pistache	12	No	5	High	Off-site tree; tagged on fence; multiple attachments at 6'; healthy round crown; branches overhang by ~8'.
16	Coast live oak	6,4	No	5	High	Codominant trunks arise from 4'; vigorous full crown.
17	Deodar cedar	10	No	5	High	Off-site tagged on fence; branches overhang 6'; good young tree.
18	Coast live oak	23,20	No	4	High	Off-site tagged on fence; codominant trunks arise from 4'; crowded by juniper at West base; vigorous full round crown.
19	Coast live oak	9,4	No	5	High	Trunk at fence; codominant trunks arise from 2'; 100% live crown ratio; vigorous.
20	Western juniper	15,10,10,6	No	3	Moderate	Off-site tagged on fence; multiple attachments at 2'; history of limb removal E; branches growing into #21; branches overhang ~12'.
21	Coast live oak	17	No	5	High	Off-site tagged on fence; multiple attachments at 12'; full healthy crown; branches overhang ~25'.

Tree Assessment

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Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
22	Coast live oak	21,19	No	4	High	Off-site tagged on fence; leans S; codominant trunks arise from 3'; vigorous; cedar trunk touching at NW base; branches overhang ~25'.
23	Coast live oak	12	No	2	Low	Codominant trunks arise from 4'; leaning NE; extremely crowded; suppressed by off-site trees.
24	Coast live oak	6,2	No	4	Moderate	Codominant trunks arise from base; crowded; slightly sinuous trunk; vigorous.
25	Valley oak	8,6	No	5	High	Codominant trunks arise from base; full healthy vigorous crown.
26	Siberian elm	7,4	No	1	Low	Base at fence; codominant trunks arise from base; failing S; profuse epicormic growth.
27	Siberian elm	18,10,8,8, 6,6,6,5,4,4 ,4	No	2	Low	Group of stems; base at fence; failing S; engulfed in ivy; mostly epicormic growth.
28	Holly oak	13,12,10,9	No	3	Low	Base at fence; multiple stems at base; leans W; vigorous healthy crown.
29	English walnut	7,7,6,6,6,6 ,6,5,5,5,4, 4,3,3,3	No	3	Low	Multiple stems at base; suppressed; vigorously; wide-spreading vase shape.
30	Coast live oak	30	No	3	Moderate	Off-site tagged on fence; codominant trunks arise from 7' with 4' seam; utility pruned; vigorous wide spreading crown.
31	Coast live oak	10,6,5,4	No	2	Low	Group of stems embedded in fence; on fence line; extremely crowded; leaning S.
32	English walnut	9,8,7,7,7,7 ,6,6	No	2	Low	Multiple stems at base; engulfed in ivy; extensive twig and branch dieback.
33	Canary Island date palm	40	No	4	Moderate	Tagged on fence; trunk between 2 fences ; leans slightly S; suppressed N; brown trunk height ~25'.
34	Incense cedar	20	No	2	Low	Off-site; no tag; trunk leans S; aggressively utility pruned; candelabra form; branches overhang ~20'.
35	Incense cedar	20	No	2	Low	Off-site; no tag; trunk leans S; aggressively utility pruned; candelabra form; branches overhang ~20'.
36	Incense cedar	20	No	2	Low	Off-site; no tag; trunk leans S; aggressively utility pruned; candelabra form; branches overhang ~20'.
37	Avocado	15	No	4	High	Off-site; no tag; multiple attachments; vigorous healthy crown; branches overhang ~6'.

Tree Assessment

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Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
38	Glossy privet	7,4,4,4,4,3,3,2,2	No	3	Low	Off-site tagged on fence; 2 groups of stems; upright and vigorous; branches overhang ~5'.
39	Monterey pine	17	No	3	Low	Multiple attachments at 6'; boring holes in trunk; small twig and branch dieback; sparse crown.
40	Monterey pine	14	No	3	Low	Codominant trunks arise from 5'; moderate twig and branch dieback sparse crown.
41	Monterey pine	12	No	2	Low	Codominant trunks arise from 5'; boring holes in trunk; moderate twig and branch dieback; sparse crown; extensive sap bleeding.
42	Monterey pine	16	No	2	Low	Multiple attachments at 6'; girdling roots; sparse crown; small twig and branch dieback.
43	London plane	7	No	3	Moderate	Trunk bows NE; vigorous healthy crown.
44	Mulberry	21	No	2	Low	Animal burrow at base; significant trunk decay; exfoliating bark; vigorous wide-spreading crown.

Tree Assessment Plan

201 Rollingwood Drive
Vallejo, CA

Prepared for:
KB Home
Fairfield, CA

August 2023



No Scale

Notes:
Base map provided by:
CBG
San Ramon, CA

Numbered tree locations are approximate.



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CITY OF VALLEJO DESIGN REVIEW BOARD

RESOLUTION NO. DRB 24-03

A RESOLUTION RECOMMENDING APPROVAL TO THE PLANNING COMMISSION FOR
DESIGN REVIEW (DR23-0019) AND LANDSCAPE REVIEW (LR23-0013) FOR 130 SINGLE-
FAMILY DWELLING UNITS SMALL LOT SUBDIVISION ON A VACANT SITE OFF
ROLLINGWOOD DRIVE
(APNs: 0072-170-050 & -060)

WHEREAS, on October 16, 2023, KB Home North Bay, LLC submitted an application seeking a Development Review, Design Review Permit, Landscape Review, Minor Use Permit, Exception and Tentative Map for small lot subdivision for the construction of 130 single-family homes (“Project”) located on a vacant site off Rollingwood Drive (APN: 0072-170-050 and -060) (the “Property”); and

WHEREAS, on August 29, 2017, the City Council adopted General Plan 2040; and

WHEREAS, on July 22, 2021, the City Council adopted a new Zoning Code and Zoning Map; and

WHEREAS, the Property has a General Plan 2040 land use designation of Mix of Housing types/Medium Density (R-MH); and

WHEREAS, the Property is located in the Residential Medium Density Zoning District; and

WHEREAS, on July 24, 2024, the application for the Project was determined to be complete for processing; and

WHEREAS, on September 26, 2024, notice of this hearing was published in the Times Herald and mailed to all active neighborhood groups and property owners within 500 feet of the subject property and electronically mailed to the members of the Design Review Board and to the applicant; and

WHEREAS, on October 10, 2024, at 7p.m., the City of Vallejo Design Review Board, after giving all public notices required by State law and the City of Vallejo Municipal Code, opened the public hearing and continued the item to November 14, 2024; and

WHEREAS, on December 12, 2024, at 7p.m., the City of Vallejo Design Review Board, after giving all public notices required by State law and the City of Vallejo Municipal Code, conducted a duly noticed public hearing; and

WHEREAS, the Design Review Board considered testimony and evidence, both written and oral, provided at the public hearing, as well as other documents contained in the record of proceedings relating to the Project, which are maintained in the offices of the City of Vallejo Planning Division; and

NOW, THEREFORE, based on evidence received in the staff report and at the public hearing, the Design Review Board makes the following factual findings:

I. FINDINGS RELEVANT TO THE APPROVAL OF THE DESIGN REVIEW PERMIT (VMC Section 16.604.03.B)

- A. Is consistent with the purposes of this chapter, the design policies of the general plan and any applicable specific plan, any adopted applicable design guidelines.**

Purposes of the Chapter

- 1. Establish regulations for an objective process that applies urban design principles to ensure that new construction supports the best of the city's architectural traditions.**

As proposed, the project meets the objective design standards called out in VMC Chapter 16.202 – Residential Districts, as discussed in detail below.

- 2. Encourage new structures that show creativity and imagination, add distinction, interest, and variety to the community, and are environmentally sustainable.**

The proposed home designs utilizing three distinct architectural styles will be constructed with a variety of high-quality building materials and painted with simple, bold colors. Vertical and horizontal façade breaks, and appropriate building massing have been incorporated into the design of the subdivision and will create distinction in the context of the larger established neighborhood.

- 3. Promote architectural and design excellence in new construction and discourage poor quality development.**

The project details, colors, materials, and landscaping are integrated with one another in a way that ensures a visually consistent proposal. Each architectural style will consist of building features, materials, and colors typically associated with that particular style. The Spanish style is fully stucco, has gable and hip roofs, concrete 'S' roof tiles, arched porch openings, clay pipe details, and plank shutters. The Craftsman style has gable roofs, 'shake' concrete roof tiles, tapered columns, shake siding, stone veneer, decorative outlookers and knockers, shaped corbels, and plank shutters with a diamond cut out. The Farmhouse style has gable and hip roofs, shake concrete roof tiles, board and batten exterior siding, band trim, decorative vents, enhanced header trims, and plank 'Z' shutters. Overall, the project uses high-quality, long-lasting material that will result in a quality development.

- 4. Ensure that future development should:**
 - a. Reflect the values of the community.**
 - b. Enhance the surrounding environment.**
 - c. Visually harmonize with its surroundings and not unnecessarily obstruct scenic views; and**
 - d. Avoid nostalgic misrepresentations that may confuse the relationships among structures over time.**

The project reflects the promotion of development that targets underutilized sites, which is a policy identified in the General Plan. The new project will enhance the surrounding environment by providing additional housing units. Due to its location, the project will not obstruct scenic views and due to its nature and design, nor will it confuse the relationships among structures in the vicinity over time.

- 5. Ensure that decisions on housing development projects are based on objective design standards as required by the State Housing Accountability Act (Government Code Section 65589.5).**

As described in Tables 3 and 4 above, the project complies with applicable, objective general plan and zoning standards. Therefore, in accordance with the provisions of the

Housing Accountability Act (HAA), California Government Code Section 65589.5(j), the city may not deny the project or approve the project at a reduced density without basing its decision on the written findings under Section 65589.5(j), which read as follows:

- 1. The development would have a specific adverse impact on public health or safety unless disapproved, or approved at a lower density; and*
- 2. There is no feasible method to satisfactorily mitigate or avoid the specific adverse impact, other than the disapproval, or approval at a lower density*

6. Provide for new landscaping to create a visually pleasing setting for structures on the site.

Landscaping will be provided in the front yards, open spaces and around the bioretention basins. A total of 384 new trees, as well as shrubs and ground cover, will be planted within the project to enhance the project site. There will be a pedestrian trail in between the detention and large bioretention basins. The new landscaping will create a visually pleasing settling for the homes to be constructed on the site.

7. Promote the protection and retention of landmark, native, and specimen trees and if feasible mature canopy trees and other significant landscaping of aesthetic and environmental value.

The project will remove a total of 31 on site trees. An arborist report was prepared and a total of 44 trees (31 on-site and 13 off-site) were assessed, identifying 17 different tree species. Coast live oak was the most common species with 12 existing trees, followed by Arizona cypress with eight. The trees ranged from poor to good condition. To supplement the removal of trees, a total of 384 new trees will be planted as part of the project.

8. Ensure that the design, quality, and location of signs are consistent with the character and scale of the structures to which they are attached and are visually harmonious with surrounding development.

No community development signage is proposed with the construction of the new homes however, street and directional signage will be included.

9. Promote the conservation, enhancement, preservation, and protection of historic resources.

Not applicable; there are no historic resources near this project's location.

Design policies of the General Plan

The project site is designated as Mix of Housing Types/Medium Density (R-MH) on the General Plan Land Use Map. The General Plan 2040 R-MH designation provides for residential neighborhoods largely characterized either by primarily single use, multi-family developments with common outdoor spaces. As proposed, the project is consistent with the R-MH General Plan land use designation and is consistent with applicable General Plan 2040 policies.

Adopted applicable design guidelines.

The subject site is not within an adopted specific plan and design guidelines have not been adopted for this location.

B. Is consistent with any planning or zoning approvals by the director or the planning commission.

Not applicable.

C. Complies with any other relevant city policies or regulations.

The project as proposed complies with VMC Chapter 16.202 – Residential Districts, as the project has been designed to meet the requirements, as detailed in Table 3 and 4 of Attachment 2 of the staff report. The Planning Commission will act on the Development Review for the project.

NOW, THEREFORE, LET IT BE RESOLVED that the Design Review Board hereby recommends that the Planning Commission **APPROVE** Design Review (DR23-0019) and Landscape Review (LR23-0013) based on the above findings.

PASSED AND ADOPTED at a regular meeting of the Design Review Board of the City of Vallejo, State of California, on the 12th day of December 2024 by the following vote:

AYES: Chair Kennedy, Board Members Eli, Adams and Gordon
NOES: None
ABSENT: Board Member Lugtu
ABSTAIN: None

DocuSigned by:

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MATTHEW KENNEDY, CHAIRPERSON
City of Vallejo Design Review Board

Attest:
Signed by:

E220526B80EFD413
CESAR OROZCO, SECRETARY
City of Vallejo Design Review Board