THE CITY OF
EL CERRITO

COMMUNITY DEVELOPMENT DEPARTMENT

Staff Liaison
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AGENDA

REGULAR MEETING OF THE DESIGN REVIEW BOARD

November 1, 2023 at 7:30 p.m.

City Council Chambers, City Hall
10890 San Pablo Avenue, El Cerrito, CA 94530

7:30 p.m. CONVENE REGULAR MEETING

1. ROLL CALL – Chair Andrea Lucas; Vice Chair Hugh Vanho; Members Ben Chuaqui, Gyan Singh, and Chi Yu.

2. COUNCIL/STAFF LIAISON ANNOUNCEMENTS AND REPORTS
The City Council Liaison or City staff may report on matters of general interest to the Design Review Board, Council policies, priorities and significant actions taken by the City Council.

3. ORAL COMMUNICATIONS FROM THE PUBLIC
Remarks are typically limited to three minutes per person, and may be on anything within the subject matter jurisdiction of the body. Remarks on non-agenda items will be heard first, remarks on agenda items will be heard at the time the item is discussed.

4. ADOPTION OF MINUTES
Adoption of the October 4, 2023 meeting minutes

5. COMMUNICATION/CONFLICT OF INTEREST DISCLOSURE
This time on the agenda is reserved for Design Review Board members to disclose communications from individuals regarding specific agenda items or to state a potential conflict of interest in relation to a specific agenda item.

6. PUBLIC HEARING – 1711-1755 EASTSHORE BLVD. TIER II DESIGN REVIEW

Application:	PL22-0015
Applicant:	AMG & Associates
Location:	1711-1755 Eastshore Boulevard
APN:	513-371-001, 513-371-002, & 513-362-110
Zoning:	Transit-Oriented Higher-Intensity Mixed Use (TOHIMU)
General Plan:	Transit-Oriented Higher-Intensity Mixed Use (TOHIMU)
Request:	Design Review Board Consideration of Tier II Design Review, pursuant to the San Pablo Avenue Specific Plan, for a new 5-story building containing 315 residential units.
CEQA:	This project has been found to be consistent with the Program Environmental Impact Report prepared for the San Pablo Avenue Specific Plan, pursuant to CEQA Guidelines Sections 15168 and 15182.

7. STAFF COMMUNICATIONS
Informational reports on matters of general interest, presented by City staff.

8. ADJOURNMENT

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Staff Liaison, Sean Moss at 510-215-4330. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.102-35.104 ADA Title I).

Any writings or documents provided to a majority of the members regarding any item on this agenda will be made available for public inspection at City Hall during normal business hours.

THE CITY OF
EL CERRITO

COMMUNITY DEVELOPMENT DEPARTMENT

Staff Liaison
Sean Moss | (510) 215-4330
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MINUTES

REGULAR MEETING OF THE **DESIGN REVIEW BOARD**

October 4, 2023 at 7:30 p.m.

City Council Chambers, City Hall
10890 San Pablo Avenue, El Cerrito, CA 94530

DRAFT

7:30 p.m. CONVENE REGULAR MEETING

1. ROLL CALL – Ben Chuaqui, Andrea Lucas, Gyan Singh, Hugh Vanho, and Chi Yu.

2. ELECTION OF CHAIR AND VICE CHAIR
Moved/Second: Boardmember Chuaqui/Singh. **Action:** Passed a motion to elect Andrea Lucas as Chair.
Ayes: Chuaqui, Lucas, Singh, Vanho, Yu
Noes: None
Abstain: None
Absent: None

Moved/Second: Boardmember Lucas/Yu. **Action:** Passed a motion to elect Hugh Vanho as Chair.
Ayes: Chuaqui, Lucas, Singh, Vanho, Yu
Noes: None
Abstain: None
Absent: None

3. COUNCIL/STAFF LIAISON ANNOUNCEMENTS AND REPORTS
Nothing was reported.

4. ORAL COMMUNICATIONS FROM THE PUBLIC
No speakers addressed the Board.

5. ADOPTION OF MINUTES
Moved/Second: Boardmember Chuaqui/Yu. **Action:** Passed a motion to adopt the February 1, 2023; February 23, 2023; and June 6, 2023 meeting minutes.
Ayes: Chuaqui, Lucas, Singh, Vanho, Yu
Noes: None
Abstain: None
Absent:. None

6. COMMUNICATION/CONFLICT OF INTEREST DISCLOSURE
Boardmember Chuaqui disclosed that BRIDGE Housing is a client of his employer, and he will recuse himself from the public hearing for the revision to 11690 San Pablo Avenue.

7. PUBLIC HEARING – 444 KEARNEY STREET TIER III DESIGN REVIEW

Application: PL22-0068
Applicant: Robert Wolf
Location: 444 Kearney St.
APN: 504-510-026
Zoning: Transit-Oriented Higher-Intensity Mixed Use (TOHIMU)
General Plan: Transit-Oriented Higher-Intensity Mixed Use (TOHIMU)
Request: Design Review Board consideration of Tier III Design Review for increasing the height of an existing structure by 6 feet and creating a live work unit.
CEQA: This project is categorically exempt from the provisions of CEQA pursuant to Section 15332 of the CEQA Guidelines, Class 32: In-fill Development Projects.

Associate Planner Diego Romero presented the staff report and answered questions from the Board.

The applicant, Robert Wolf, presented the project and answered questions from the Board.

The public hearing was opened.

No speakers addressed the Board.

The public hearing was closed.

Moved/Second: Boardmember Lucas/Vanho. **Action:** Passed a motion approving Tier III Design Review for exterior alterations, including new materials and colors to an existing building located at 444 Kearney street.
Ayes: Chuaqui, Lucas, Singh, Vanho, Yu
Noes: None
Abstain: None
Absent: None

8. PUBLIC HEARING – REVISION TO 11690 SAN PABLO AVENUE (MAYFAIR AFFORDABLE)

Application: PL23-0118
Applicant: Florence Hsueh, BRIDGE Housing Corporation
Location: 11690 San Pablo Avenue
APN: 502-062-031
Zoning: Transit-Oriented Higher-Intensity Mixed Use (TOHIMU)
General Plan: Transit-Oriented Higher-Intensity Mixed Use (TOHIMU)
Request: Design Review Board consideration of an amendment to Tier IV Design Review approval of application PL20-0025 to allow modification to the exterior elevations.
CEQA: A 2017 Initial Study Checklist for the previously approved project determined that the project was found to be consistent with the Program Environmental Impact Report prepared for the San Pablo Avenue Specific Plan, pursuant to CEQA Guidelines Section 15168 and Public Resources Code Section 21166. Per CEQA Guidelines Section 15164, an Addendum to the Initial Study Checklist, determined that the proposed project would not result in new or substantially more adverse significant environmental effects.

DRAFT

Associate Planner Diego Romero presented the staff report and answered questions from the Board.

Jeremy Hoffman of BRIDGE Housing and Mark Donahue of Lowney Architecture presented the project on behalf of the applicant team and answered questions from the Board.

The public hearing was opened.

No speakers addressed the Board.

The public hearing was closed.

Moved/Second: Boardmember Singh/Lucas. **Action:** Passed a motion approving amendments to a prior Tier IV design review approval for a building containing 69 affordable residential units at 11690 San Pablo Avenue.
ayes:, Lucas, Singh, Vanho, Yu
Noes: None
Abstain: None
Absent: Chuaqui

9. STAFF COMMUNICATIONS

Planning Manager Sean Moss updated the Board on the adoption of the Housing Element, the Safety Element update, the El Cerrito Plaza TOD Master Plan application, and staffing in the Planning Division.

10. ADJOURNMENT

8:54 p.m.

_____
Andrea Lucas, Chair

This is to certify that the foregoing is a true and correct copy of the minutes of the regular Design Review Board meeting of October 4, 2023 as approved by the Design Review Board.

_____
Jeff Ballantine, Staff Liaison

DRAFT

Community Development Department
Planning and Building Division
10890 San Pablo Avenue, El Cerrito, CA 94530
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DESIGN REVIEW BOARD TIER II STAFF REPORT

October 4, 2023

1711-1755 EASTHSHORE BOULEVARD

DETAILS

Application Number: PL22-0015

Applicant: AMG & Associates

Location: 1711-1755 Eastshore Boulevard

APN: 513-371-001, 513-371-002, & 513-362-110

Zoning: Transit-Oriented Higher-Intensity Mixed-Use (TOHIMU)

General Plan: Transit-Oriented Higher-Intensity Mixed-Use (TOHIMU)

Request: Design Review Board consideration of Tier II Design Review, pursuant to the San Pablo Avenue Specific Plan, for a new 6-story building containing 315 residential units.

CEQA: This project is consistent with the Program Environmental Impact Report prepared for the San Pablo Avenue Specific Plan, pursuant to CEQA Guidelines Sections 15168 and 15182.

EXECUTIVE SUMMARY

The requested entitlement for Design Review Board review consists of a Tier II Design Review, pursuant to the San Pablo Avenue Specific Plan.

The proposed project includes a new 6-story building with 315 residential units totaling 219,622 square feet. The Design Review Board's authority pursuant to the Tier II Design Review process includes the following elements only:

- Exterior building colors, materials, and textures
- Landscaping
- Site Plan
- Building facades and articulation
- Relationship of the development to adjacent public rights-of-way
- Signs
- Locations and footprints of bioretention facilities as required for stormwater management

The applicant submitted this project pursuant to the SB330 process, which limits the application to five (5) public meetings and requires that the project be subject only to objective design standards.

The applicant is also requesting a Density Bonus under California Government Code Section 65915(f)(1). The applicant is proposing 24% of the units as lower-income units which entitles the project to a 40% density bonus and up to three (3) concessions.

Based on the information in this report supporting the required findings, staff recommends approval of the project.

Background

Site Location and Layout

The project site is located between Eastshore Boulevard and Interstate 80. The project site is currently unutilized and consists of a surface parking lot previously used by the adjacent commercial building immediately west of the project site (formerly Orchard Supply Hardware) which is undergoing renovation to a self-storage facility. Most of the project site is paved with limited ornamental landscaping.

Vicinity Map



Existing Public Right-of-Way

The site has approximately 742 feet of street frontage along Eastshore Boulevard. The existing right-of-way adjacent to the property includes a sidewalk adjacent to the curb, bike lanes, and on-street parking. There is a section of right-of-way along the south end of the site that has traditionally been used as a loading/unloading area for casual carpool.

Existing/Previous Land Use

The project site is currently occupied by a parking lot that served the former Orchard Supply Hardware (OSH) store. The existing building that housed OSH received approval for conversion to a self-storage

facility in 2021/2022 (see Previous Entitlements section below). That building now sits on a separate parcel and the self-storage project is under construction.

Site Photo



Adjacent Land Uses

North: Commercial shopping center (TOHIMU)

East: Commercial uses (TOHIMU)

South: Commercial uses (TOHIMU)

West: Single-family residential, across Interstate 80 (RS-5)

Previous Entitlements

On January 4, 2021, the El Cerrito Zoning Administrator approved an Administrative Use Permit to allow personal storage land use within the building that formerly housed Orchard Supply Hardware.

On February 2, 2022, the Design Review Board approved Resolution DRB2022-01 (for Application PL21-0103) granting Tier III Design Review approval for exterior and site improvements to reuse the existing commercial building (i.e., formerly Orchard Supply Hardware) as a personal storage facility.

On November 15th, 2022, the City's Subdivision Committee approved Resolution SC2022-02 (for Application PL22-0007) granting approval of a subdivision map to create a 79,541 square-foot parcel and an 88,867 square foot parcel. The applicant has recorded the map, creating the two parcels. The first parcel contains the existing building, and the second parcel contains this project.

SB 330

This project is being processed under the review process that was created by Senate Bill 330 (SB 330). SB 330 includes the following relevant provisions:

- Requirement that the project be reviewed using only objective standards (i.e. standards that contain subjective judgement cannot be applied to the project.)
- "Locking in" standards and city ordinances applicable at the time the preliminary application is submitted, provided that a formal development application is submitted pursuant to the timelines

established in SB 330.
- Prohibition on holding more than five public hearings.

With respect to this project, the preliminary application was submitted on March 25, 2022. On that date, the recent update to the San Pablo Avenue Specific Plan had not yet been adopted. Therefore, the project subject to the San Pablo Avenue Specific Plan as originally adopted in 2014.

Analysis

Project Description

The proposed project consists of a 219,622 square foot, 6-story building containing five residential floors with 315 residential units over a 1-story parking garage. The building will front onto Eastshore Boulevard and include a publicly accessible open space area centered around the main entry to the lobby. The 37,965 square-foot ground-level parking garage, with 60 spaces, will have access from Eastshore Boulevard and the shared driveway to the north of the project (often referred to as Peerless Avenue). Eight stalls are provided outside the garage. The project will include 315 long-term bicycle parking spaces within the units and 32 short-term bicycle parking spaces outside the building next to the building entrances.

The project will include indoor amenity spaces for residents and public open space located by the Eastshore Boulevard and Peerless Avenue intersection. The building will feature a combination of studios and one-bedroom apartments. The project contains 295 studios and 20 one-bedrooms. The site is across San Pablo Avenue from the El Cerrito del Norte BART Station.

Compliance with the San Pablo Avenue Specific Plan

Chapter Two of the San Pablo Avenue Specific Plan establishes the land use regulations and development standards of the Specific Plan Area.

Some development standards apply throughout the Plan area. These include:
- Regulation by Street Type – includes building placement, building form, and shadow analysis.
- Open Space Requirements – include private, common, and public types of open space.

Other development standards vary by transect zone. The development standards that are related to the transect zone include:
- Types of land use permitted, conditionally permitted, or prohibited.
- Building Height- the minimum and maximum heights allowed.
- Parking of vehicles – the minimum and maximum number of spaces allowed.
- Parking of bicycles- the minimum number of spaces allowed.

This project is in the Transit-Oriented High-Intensity Mixed-Use (TOHIMU) Transect and meets most of the relevant development standards specified for its location in the Plan Area. The project is seeking concessions and waivers pursuant to the State Density Bonus to address the shortfalls (see Density Bonus Waivers and Concessions section below). The project is located between Eastshore Boulevard and I-80. Eastshore Boulevard and is designated as Gateway Street.

The tables below show the relevant Specific Plan standards and the compliance of the project with those standards.

Street Type Standards		
Gateway Street	**Required**	**Provided**
Building Placement		
Sidewalk Amenity Zone	4 ft. min	4 ft.
Sidewalk Pedestrian Zone	6 ft. min	6 ft.
Sidewalk Activity Zone	0 ft. min	0 ft.
Ground Floor Front Setback	Min: Accommodate required zones; up to 10 ft. (non-residential)	0 ft., and all zones accommodated
Side Setback	0 ft. min	0 ft.
Rear Setback	See Section 2.01.05 (Shadows)	Density Bonus (see below)
Pedestrian Access	Street fronting ground floor units and spaces to have individual entries along front or side streets.	Main entrances face street with entrances on the side street
Vehicular Access	Max. 24' 2-way driveways	1 24' 2-way driveway 1 26' 2-way driveway (COA for 24' driveway)
Building Form		
Upper Floor Setbacks	See Section 2.01.05 (Shadows)	Density Bonus (see below)
Ground Floor Ceiling Height	14 ft. min clear	13 ft 1 in Concession Requested (see below)
Upper Floor Ceiling Height	9 ft. min clear	10 ft. 1 in
Building Length	300 ft. max	475-ft Concession Requested (see below)
Ground Floor Transparency	Non-residential - 75% min	Non-residential – 83%
Upper Floor Transparency	30% min	The upper floors vary from 4-18 percent. Concession Requested (see below)
Front Encroachments	4 ft. max / ground floor commercial	0 ft
Rear Encroachments	4 ft. max	0 ft
Allowed Frontage Types	Front Yard, Forecourt Flex, Shop Front	Flex Front (100%)

Transect Zone Standards		
TOHIMU Zone	**Required**	**Provided**
Standards		
Building Height Minimum	3 stories min	5 stories
Building Height Maximum (Affordable Housing Project)	85 ft. max	67 ft. 9 in. (base of parapet)
Vehicle Parking Requirement	0 parking spaces (see parking discussion below)	60 auto spaces podium; 8 stalls (off-street)
Bicycle Parking Requirement	32 short-term; 473 long-term	32 short-term; 315 (bike hook within units) long-term Waiver Requested

Open Space Standards		
Standards	**Required**	**Provided**
Private/Common Open Space	80 sq. ft./unit min (24,800 sq. ft.)	0 sq. ft. Waiver Requested
Public Open Space (Residential Uses) & (Non-residential)	25 sq. ft./1,000 sq. ft. (5,527 sq. ft. required)	4,896 sq. ft. (in lieu credit will be given for improvements within public right of way)

In addition, the project will implement the following strategies of the San Pablo Avenue Specific Plan:

- **Strategy B.1:** Maximize TOD potential (BART and AC Transit).

  The project will provide 315 new housing units in close proximity to existing AC Transit lines and the El Cerrito del Norte BART station. *The project will face Eastshore Boulevard, providing a pleasant pedestrian environment along the street.*

- **Strategy B.2**: Stimulate investment in vacant/underutilized sites at key focus areas.

  The project utilizes an underutilized site. Currently, the site contains an unused surface parking lot. The proposed project will provide 315 new housing units near public transit.

- **Strategy E.1:** Promote infill development through increased land use intensity close to existing transit infrastructure.

  The project will provide 315 new housing units on an underutilized site near existing public transit infrastructure.

Design Review Process

Pursuant to Section 2.03.08.01.02.B of the San Pablo Avenue Specific Plan, Tier II Design Review is the entitlement process for new projects that have been designed in full compliance with the design standards of the San Pablo Avenue Specific Plan.

The Design Review Board is the body of Tier II Design Review decisions. The discretionary scope of Tier II Design Review includes the following components:

- Exterior building colors, materials, and textures
- Landscaping
- Site Plan
- Building facades and articulation
- Relationship of the development to adjacent public rights-of-way
- Signs
- Locations and footprints of bioretention facilities as required for stormwater management

Density Bonus, Concessions, & Waivers

Because the project is proposing 24% of the units be affordable to lower income individuals, the project qualifies for a 40% density bonus, three (3) concessions and an unlimited number of waivers to adopted development standards under the State of California's Density Bonus Law.

The project qualifies for three (3) concessions to the San Pablo Avenue Specific Plan. Concessions that result in identifiable and actual cost reductions must be granted. The applicant is seeking the following concessions:

1) Ground Floor Ceiling Height: The San Pablo Avenue Specific Plan FBC requires a minimum height of 14 feet for the ground floor. The applicant is proposing a ceiling height of 12 feet and 8 inches for the ground floor.

2) Regulation by Street Type: Section 3.01.03 requires a minimum of 25% upper-floor transparency. The applicant proposes a range of 4-18 percent transparency range on the upper-levels. The 4% is on the northern portions of project which primarily consists of a stairwell. A majority of the upper-level facades of the building have 15% transparency.

3) Building Length: Section 2.05.02.03 of the San Pablo Avenue Specific Plan FBC requires a 300-foot maximum building length. The applicant is proposing one building with a length of 475 ft.

Waivers must be granted if any development standard physically prevent the project from being built at the permitted density. The applicant is seeking the following waivers:

1) Upper Floor Setbacks: This development standard falls under Section 2.05.02.02.04 of the San Pablo Avenue Specific Plan FBC. The development standard requires that the building along major commercial and commercial streets not cast shadows beyond the curb line on the opposite side of the street on Winter Solstice streets to the north of the parcel at 10:00 a.m. or 4:00 p.m. The project as proposed casts shadows across opposite curb lines to the north the entire day during the winter solstice (see Shadow Studies on Sheets A9.0-A9.2). To comply with the upper floor

setback, the project would have to reduce the northern portion of the building by two stories. Without relief from this standard, the project would lose 24 units; it would be physically impossible to accommodate all 315 units.

2) Plazas: Section 2.05.06.02 requires the project to minimize shade from the adjoining building and ensure 50% of the open space is free of shadow during 2/3 of daylight hours (sunrise to sunset). The applicant prepared a massing study indicating that the existing building would cast shadows on the plaza in the afternoon and evenings. Any changes to the project would reduce units, affect podium height and design. The applicant is proposing a waiver from this requirement. The applicant estimates that without relief from this standard, the project would lose 95 units and it would be physically impossible to accommodate all 315 units.

3) Private/Common Open Space: Section 2.01.06 of the San Pablo Avenue Specific Plan FBC requires that the applicant provide 80 square feet per unit for Private/Common Open Space, which amounts to 24,800 square feet. The proposed development will not provide private/common open space. The developer explored having internal private/common open space and placing the open space on the roof. Due to the location of the HVAC units and building requirements for solar panels, it proved infeasible to provide this private common open space.

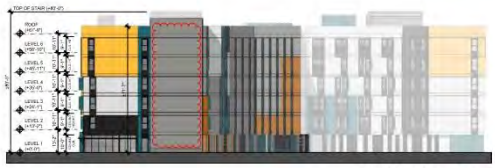
4) Long-Term Bicycle Parking: FBC Table 32 requires 1.5 long-term bicycle spaces per unit. The applicant is proposing 1 long-term bicycle space per unit. The applicant states that if they were required to provide an additional 158 long-term bicycle spaces that it would result in the loss of 6 dwelling units and that without relief from this standard that it would be impossible to the accommodate all the units that they are entitled to.

Architectural Design

The project proposes a modern aesthetic characterized by significant massing and articulation of both solid and transparent surfaces, and organic and smooth materials. The project features stucco, wood-like siding, complementary and varying colors, and dark metal accents, awnings, and railings.



EAST ELEVATION 2



NORTH ELEVATION 1



WEST ELEVATION 4



SOUTH ELEVATION 3



Landscape Design

The landscape design for the site proposes a publicly accessible plaza on the exterior side of the project facing Eastshore Boulevard and the Del Norte BART station, additional landscaping will be provided throughout the site including 58 trees, with associated shrubs and ground cover.

The plaza will consist of 7,557 square feet of public open space improvements, of which 2,660 square feet of the work is in the public right-of-way. The plaza will have a water feature, community sign, picnic tables, trees, shrubs, turf grass, and bioretention features in 24-inch planters and 1–5-gallon pots.

The proposed plant palette includes native, drought-tolerance trees such as Strawberry Trees, Crape Myrtles, Flowering Plums and Elm. Drought-tolerant and low water use shrubs and ground cover include Yarrow, Agave, Aloe, Kangaroo Paw, Manzanita, Bulbine, Little John Bottlebrush, Ceanothus, Hopseed Bush, Wild Rye, Atlas Fescue, Sunrose, Lion's Tail, Mat Rush, Fringe Flower, Myoporum, Heavenly Bamboo, New Zealand Flax, Mock Orange, Rosemary, Sage, Blue Chalk Sticks, Germander, and Coast Rosemary.

Due to the deficit of open space provided on the project site, the applicant will owe an open space in-lieu contribution. The City has agreed to give the applicant a credit toward the public open space in-lieu contribution in the amount of the value of the improvements in the public right-of-way.

Art in Public Places

The project is required to comply with Chapter 13.50: Art in Public Places of the El Cerrito Municipal Code. The applicant will work the City to determine onsite public art. The applicant is proposing that a mural be painted on the stairwell on the northside of the building facing Peerless Avenue. This would be visible from southbound I-80 above the buildings, the corner of Peerless Avenue and Eastshore Boulevard, and the BART platform.



Proposed location of mural on North façade of the building

Parking

Assembly Bill 2097, which took effect on January 1, 2023, eliminated minimum parking requirements within ½ mile of high-quality transit stops. This law eliminates the parking requirements for this project.

Public Notice and Comment

The required public notice for the project was published in the East Bay Times and mailed to owners of property within 300 feet of the project site and all interested parties on October 18, 2023. No public comments were received prior to the publication of this report.

Environmental Review

A Program Environmental Impact Report (program EIR) was certified for the San Pablo Avenue Specific Plan in 2014. This type of environmental documentation is authorized by section 15168 of the California Environmental Quality Act (CEQA) Guidelines for use in documenting the environmental impacts of specific plans, and other planning "programs." As explained in the CEQA Guidelines, a program EIR is useful in evaluating the potential environmental impacts of a project that involves a series of interrelated actions that can reasonably be characterized as a single project. Subsequent activities that fall within the scope of the program may not be subject to further environmental review if the environmental effects of the subsequent activity have been adequately addressed in the program EIR. CEQA Guidelines Section 15168(c)(4) recommends using a written checklist or similar device to confirm whether the environmental effects of a subsequent activity were adequately covered in a program EIR. An Initial Study Checklist has been prepared for this project (Attachment 3). The responses contained in the checklist confirm that the project is considered within the scope of the evaluation completed for the program EIR. No new impacts were identified, and no new mitigation measures are required. Several conditions of approval have been included in the draft resolution to ensure that key mitigation measures of the San Pablo Avenue Specific Plan Program EIR are implemented for this project. The inclusion of these conditions ensures that the project will not have environmental effects that have not previously been addressed in the San Pablo Avenue Specific Plan EIR.

Compliance with the General Plan

The project is consistent with and will implement the following policies of the El Cerrito General Plan:

LU1.5: Suitable Housing. Promote suitably located housing and services for all age groups within the city. Within the San Pablo Avenue Specific Plan area, allow ground floor residential development and increased land use intensity close to existing transit infrastructure to promote residential infill development and catalyze mode shift.

The project will provide 315 new housing units on Eastshore Boulevard, with proximity to public transportation and commercial uses. The infill project contains residential units in a location adjacent to an existing bus stop and within two blocks of El Cerrito del Norte BART station.

LU2.1: San Pablo Avenue Specific Plan Area. Promote retail, office, and mixed uses within the San Pablo Avenue Specific Plan Area to provide more tax revenues to the city.

In accordance with the goals of the San Pablo Avenue Specific Plan, the proposed project will add housing units to the San Pablo Avenue area which will promote a balanced mixture of land uses in the corridor. The new residents of the project will support existing and new businesses along San Pablo Avenue.

LU4.1: Mixture of Uses. Encourage a mix of uses that promotes such community values as convenience, economic vitality, fiscal stability, public safety, a healthy environment, and a pleasant quality of life.

The proposed project will enhance the mixture of uses in the San Pablo Avenue Specific Plan Area. The location of the project will provide the residents with convenient access to businesses, parks, schools, public transit and the Ohlone Greenway. The design of the project will allow for surveillance of the street, enhancing public safety.

LU6.2: Circulation Alternatives. To the extent possible, encourage alternatives to the use of private automobiles. Encourage a full range of transportation options – driving, transit, walking and biking – without allowing anyone to preclude the others. On San Pablo Avenue, in many constrained rights-of-way, it is not possible to provide optimum facilities for all user groups and in the event that trade-offs are necessary, transit users and pedestrians are the highest priority.

The location of the project provides convenient access to frequent public transit along San Pablo Avenue as well as the El Cerrito del Norte BART station. The location also provides convenient walking access to local businesses.

CD1.9: Building Design. A variety of attractive images will be achieved by encouraging a variety of building styles and designs, within a unifying context of consistent “pedestrian” scale along streets and compatibility among neighboring land uses.

The proposed project is designed on a pedestrian scale and addresses Eastshore Boulevard with building entries and windows along the street.

CD2.1: Street Frontages. Encourage street frontages that are safe, by allowing for surveillance of the street by people inside buildings and elsewhere and are interesting for pedestrians. Require buildings in the San Pablo Avenue Specific Plan area to be directly abutting sidewalks, with window openings, entries and high levels of transparency along the pedestrian frontage.

The building will abut the sidewalk on Eastshore Boulevard and features ample window openings and three entries along the street. These windows will allow surveillance of the street from the units within the project.

CD2.3: Streetscape Improvements. Maintain an active program of street tree planting and improved roadway landscaping through both public and private means. Design guidelines shall describe appropriate types of trees for commercial areas – to enhance the shopping experience rather than detract from it.

The San Pablo Avenue Specific Plan implemented standards and requirements for public right-of-way improvements. The project is consistent with the standards and will enhance the adjacent public rights of way in compliance with the San Pablo Avenue Specific Plan.

CD3.3: Site Landscaping. Improve the community's appearance by requiring aesthetically designed screening and landscaping on public and private sites. Ensure that public landscaping includes entry areas, street medians, parks, and schools. Require landscaping for all private sites, yard spaces, parking lots, plazas, courtyards, and recreational areas.

The project has provided landscaping in conformance with the San Pablo Avenue Specific Plan standards. Landscaping will be provided to soften the building edge along Eastshore Boulevard.

CD3.12: Landscape Species. Indigenous and drought-tolerant species that reduce water usage and are compatible with El Cerrito's climate are encouraged.

The proposed plant palette includes native, drought-tolerance trees such as Strawberry Trees, Crape Myrtles, Flowering Plums and Elm. Drought-tolerant and low water use shrubs and ground cover include Yarrow, Agave, Aloe, Kangaroo Paw, Manzanita, Bulbine, Little John Bottlebrush, Ceanothus, Hopseed Bush, Wild Rye, Atlas Fescue, Sunrose, Lion's Tail, Mat Rush, Fringe Flower, Myoporum, Heavenly Bamboo, New Zealand Flax, Mock Orange, Rosemary, Sage, Blue Chalk Sticks, Germander, and Coast Rosemary.

CD4.2: Building Articulation. Ensure that buildings are well articulated. Avoid large unarticulated shapes in building design. Ensure that building designs include varied building facades, rooflines, and building heights to create more interesting and differentiated building forms and shapes. Encourage human scale detail in architectural design. Do not allow unarticulated blank walls or unbroken series of garage doors on the facades of buildings facing the street or the Ohlone Greenway.

The proposed building is articulated in compliance with the San Pablo Avenue Specific Plan. The building includes a varied roofline and interesting building forms. The building is designed at a human scale with building entries along Eastshore Boulevard and San Pablo Avenue.

CD5.1: Design Review Process. Continue design review and approval process for all new development, changes, additions, and modifications of existing buildings (except for single-family homes on existing lots).

The proposed project requires Tier II Design Review approval from the Design Review Board in compliance with the San Pablo Avenue Specific Plan.

T2.1: Land Use Patterns. Recognize the link between land use and transportation. Promote land use and development patterns that encourage walking, bicycling, and transit use. Emphasize high density and mixed land use patterns that promote transit and pedestrian travel. Where feasible, emphasize the following land use measures:

- Promote conveniently located neighborhood complexes that provide housing and commercial services near employment centers and within transit corridors.
- Promote land use patterns that maximize trip-linking opportunities by assembling uses that allow people to take care of a variety of daily needs.
- Encourage pedestrian-oriented land use and urban design that can have a demonstrable effect on transportation choices.
- Direct growth occurs along transit corridors.
- Encourage retail, commercial, and office uses in ground floor space in combination with upper- floor housing along San Pablo Avenue.

The project will provide 315 new residences near public transportation and local businesses, along transit corridors. The location of the project adjacent to BART, bus lines, and adjacent to bicycle lanes will allow residents a choice on modes of transportation.

T2.2: Project Design. Projects should be designed to include features that encourage walking, bicycling, and transit use.

The project will have building entries directly onto Eastshore Boulevard that provide convenient access to the adjacent bus stop, sidewalks, and bike lanes on Eastshore Boulevard.

H2.2: Encourage the construction of transit-oriented developments (TODs) that seek to maximize opportunities for the use of public transit and transportation corridors through high-density residential and mixed-use projects along those corridors in accordance with the San Pablo Avenue Specific Plan and the City's Incentives Program (Chapter 19.23 of the El Cerrito Zoning Ordinance.)

The project provides high-density housing along a transit corridor consistent with the Transit-Oriented Higher-Intensity Mixed Use Transect Zone in the San Pablo Avenue Specific Plan.

H2.3: Continue to enforce the sections of the Zoning Ordinance that increase density, reduce parking requirements, and establish design and development standards to create inviting, mixed-use neighborhoods around transit, and enforce the San Pablo Avenue Specific Plan.

The San Pablo Avenue Specific Plan reduced parking requirements and eliminated maximum density in the plan area. This project will enhance the mix of uses in the corridor adjacent to public transit. The project complies fully with the standards of the San Pablo Avenue Specific Plan, once the requested concessions and waivers are applied.

Required Findings

Pursuant to Section 2.03.08.01.02.B.3 of the San Pablo Avenue Specific Plan, in acting to approve or conditionally approve an application for the Design Component of a Tier II Site Plan and Design Review, the Design Review Board shall make the following findings:

a. That the project complies with all applicable Specific Plan design standards; and

As discussed in this report, with concessions and waivers, the project complies with all standards of the San Pablo Avenue Specific Plan.

b. That the project implements applicable goals and policies of the El Cerrito General Plan.

As discussed in this report, the project will implement the following policies of the El Cerrito General Plan: LU1.5: Suitable Housing, LU2.1: San Pablo Avenue, LU4.1: Mixture of Uses, LU6.2: Circulation Alternatives, CD1.9: Building Design, CD2.1: Street Frontages, CD2.3: Streetscape improvements, CD3.3: Site Landscaping, CD3.12: Landscape Species, CD4.2: Building Articulation, CD5.1: Design Review Process, T2.1:Land Use Patterns, T2.2: Project Design, Policies H2.2, H2.3 of Housing Element Goal H2: New Housing Development.

Staff Recommendation

Based on the information contained in this report, staff recommends approval of Planning Application No. PL22-0015, as conditioned by the draft resolution in Attachment 1.

Proposed Motion

Move adoption of Design Review Board Resolution DRB 2023-03 granting Tier II Design Review approval to Planning Application No. PL22-0015.

Appeal Period

Within ten (10) calendar days after the date of the decision, the Design Review Board action may be appealed to the City Council.

Attachments

1. Draft Resolution
2. Project Plans, dated July 5, 2023
3. Initial Study Checklist

ATTACHMENT 1

Design Review Board Resolution DRB2023-03

APPLICATION NO. PL22-0015

A RESOLUTION OF THE CITY OF EL CERRITO DESIGN REVIEW BOARD GRANTING TIER II DESIGN REVIEW APPROVAL FOR CONSTRUCTION OF A NEW BUILDING CONTAINING 315 RESIDENTIAL UNITS AT 1711-1755 EASTSHORE BOULEVARD.

WHEREAS, the site is located within the San Pablo Avenue Specific Plan Area;

WHEREAS, the General Plan land use classification of the site is Transit-Oriented Higher-Intensity Mixed Use;

WHEREAS, the zoning district of the site is Transit-Oriented Higher-Intensity Mixed Use and the project is located on a Gateway Street designation;

WHEREAS, the project has been found to be consistent with the Program Environmental Impact Report certified for the San Pablo Avenue Specific Plan, pursuant to CEQA Guidelines Sections 15168(c) and 15182;

WHEREAS, the site is located at 1711-1755 Eastshore Boulevard;

WHEREAS, the existing Assessor's Parcel Number of the site is 513-371-005;

WHEREAS, the applicant submitted a preliminary application for review under the under the Housing Crisis Act of 2019 (SB 330) on January 31, 2022;

WHEREAS, on March 25, 2022, the applicant submitted an application for Tier II Design Review, pursuant to SB 330 and the State Density Bonus;

WHEREAS, on December 16, 2022, the application was determined to be complete; and

WHEREAS, on November 1, 2023, the Design Review Board, after due consideration of all evidence and reports offered for review does find and determine the following:

1. The project is consistent with the Program Environmental Impact Report certified for the San Pablo Avenue Specific Plan, pursuant to CEQA Guidelines Sections 15168(c) and 15182 and is subject to the Program Environmental Impact Report mitigation measures listed below.

2. The project complies with all applicable standards of the San Pablo Avenue Specific Plan. The project complies with the standards for the Gateway Street, the standards for the Transit-Oriented Higher-Intensity Mixed Use district, and all other applicable standards of the San Pablo Avenue Specific Plan.

3. The project will implement the following standards of the General Plan: LU1.5: Suitable Housing, LU2.1: San Pablo Avenue, LU4.1: Mixture of Uses, LU6.2: Circulation Alternatives, CD1.9: Building Design, CD2.1: Street Frontages, CD2.3: Streetscape improvements, CD3.3: Site Landscaping, CD3.12: Landscape Species, CD4.2: Building Articulation, CD5.1: Design Review Process, T2.1:Land Use Patterns, T2.2: Project Design, and Policies H2.2, H2.3 of Housing Element Goal H2: New Housing Development.

NOW, THEREFORE, BE IT RESOLVED, that after careful consideration of maps, facts, exhibits, correspondence, and testimony, and other evidence submitted in this matter, and, in consideration of the findings, the El Cerrito Design Review Board hereby approves Application No. PL22-0015, subject to the following conditions:

Planning Division:

1. The project will be constructed substantially in conformance with the plans dated March 17, 2023. Minor changes may be approved by the Zoning Administrator. All improvements shall be implemented in accordance with these approvals. Once constructed or installed, all improvements shall be maintained as approved.

2. If Applicant constructs buildings or makes improvements in accordance with these approvals but fails to comply with any of the Conditions of Approval or limitations set forth in these Conditions of Approval and does not cure any such failure within a reasonable time after notice from the City of El Cerrito, then such failure shall be cause for non-issuance of a certificate of occupancy, revocation or modification of these approvals or any other remedies available to the City.

3. These Conditions of Approval shall apply to any successor in interest in the property and Applicant shall be responsible for assuring that the successor in interest is informed of the terms and conditions of this approval.

4. If not exercised, this design review approval shall expire two years from the date of this action pursuant to Section 19.32.100 of the El Cerrito Municipal Code.

5. The applicant shall share the conditions of approval with their general contractor for the project. The general contractor shall sign a copy of the conditions of approval to acknowledge that he/she is aware of all these conditions of approval and will comply as directed. Before issuing a building permit, this signed copy shall be returned to the planning and building division and kept as part of the project file. The conditions of approval shall be reviewed at the mandatory pre-construction meeting held between the City and the General Contractor. A copy of the conditions of approval shall always be maintained on the project site during construction.

6. Prior to issuance of a building permit, the applicant shall demonstrate compliance with Chapter 13.50: Art in Public Places of the El Cerrito Municipal Code to the satisfaction of the Zoning Administrator. The project shall be fully compliant with Chapter 13.50 prior to the issuance of the Certificate of Occupancy.

7. In compliance with Chapter 16.34 of the El Cerrito Municipal Code, the applicant shall submit plans for undergrounding of utilities adjacent to the project to the satisfaction of the Building Official prior to issuance of a building permit.

8. The cost of all automobile parking shall be separate from the sale or rental price of all residential units, unless prohibited by affordable housing financing requirements or Federal or State law. All residential unit renters and/or buyers shall be free not to rent and/or purchase parking.

9. Prior to issuance of a Building Permit, the project shall comply with all provisions of Chapter 19.30: Inclusionary Zoning of the El Cerrito Municipal Code, and the applicant shall enter into an affordable housing regulatory agreement with the City.

10. The applicant shall maintain the subject property in a manner free from public nuisances in accordance with Municipal Code Chapter 8.34 (Nuisance Abatement).

11. Until construction of the project is complete, the applicant shall post a sign on the site which:
    a. Is visible to pedestrians.
    b. Is a minimum size of 36 inches by 48 inches.

c. Includes an illustration of the approved project and contact information for the applicant.

12. Prior to the submission for building permit, the plans shall be revised to indicate a 24-foot wide driveway at the southern entrance, from Eastshore Boulevard, to the site.

13. Prior to the submission for building permit the plans shall be revised to enclose the area of the central stairwell, located mid-building along Eastshore Boulevard, between the 2nd and 3rd floor to provide additional building security.

14. To the maximum extent permitted by law, Applicant, its related entities, assignees, and successorsin-interest (collectively, "Applicant") shall defend (with counsel acceptable to the City), hold harmless, and indemnify the City and its officials, officers, agents, employees, and volunteers (collectively, "Indemnified Parties") against all liability, damages, claims, costs, demands, judgments, losses (direct or indirect), actions, causes of action, proceedings, or other forms of legal or equitable relief of every nature (1) arising out of or in connection with Applicant's construction, maintenance, or operation of the Project or any part of the Project, or its failure to comply with any of its obligations contained in this approval, including these Conditions of Approval, or its failure to comply with any applicable law or regulation; (2) seeking to attack, overturn, set aside, void, stay, or otherwise amend or rescind any or all final Project approvals, analysis or determination related to the Project under or pursuant to the California Environmental Quality Act, or granting of any permit or other entitlement issued or granted or any implementing action by the City as part of the Project approvals; or (3) any referendum filed to rescind or repeal all or any aspect of the Project approvals, including any litigation filed by or against the City related to such a referendum. Applicant's obligations pursuant to this paragraph include reimbursement of all Indemnified Parties' direct and indirect costs associated with any of the foregoing, including but not limited to attorneys' fees and costs, expert witness fees and costs, court costs, and City Staff overhead costs and normal day-to-day business expenses incurred by the City, including but not limited to any and all costs which may be incurred by the City in conducting an election as a result of a referendum to rescind or repeal all or any aspect of the Project approvals. The Applicant obligations set forth in this paragraph shall remain in effect for the life of the Project approvals and shall survive termination, extinguishment, or invalidation of the Project approvals.

Conditions based on applicable mitigation measures from the **San Pablo Avenue Specific Plan Program EIR:**

15. Aesthetics and Visual Resources. (Mitigation 4.2): Building facades shall be of non-reflective materials, and windows shall incorporate non-reflective coating.

16. Air Quality (Mitigation Measure 5.1): Implement the following BAAQMD-recommended measures to control particulate matter emissions during construction. City staff will spot check that these measures are being implemented throughout the construction phase of the project. These measures reduce diesel particulate matter PM2.5 and PM10 created from construction to ensure that short-term health impacts to nearby sensitive receptors are avoided or reduced:

    Dust (PM2.5 and PM10) Control Measures:
    a. Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
    b. Cover all hauling trucks or maintain at least two feet of freeboard.
    c. Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.

d. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).
e. Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
f. Limit traffic speeds on any unpaved roads to 15 mph.
g. Replant vegetation in disturbed areas as quickly as possible.
h. Suspend construction activities that cause visible dust plumes to extend beyond the construction site.
i. Post a publicly visible sign(s) with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Additional Measures to Reduce Diesel Additional Measures to Reduce Diesel Particulate Matter and PM2.5 and other construction emissions:

a. The developer or contractor shall provide a plan for approval by the City or BAAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOX reduction and 45 percent particulate reduction compared to the most recent CARB fleet average for the year 2011.
b. Clear signage at all construction sites shall be posted indicating that diesel and gasoline equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site or adjacent to the construction site.
c. The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).
d. Properly tune and maintain equipment for low emissions.

17. Air Quality (Mitigation Measure 5.2): Prior to issuance of building permit the applicant shall complete a project-level construction health risk assessment to the satisfaction of the Zoning Administrator. This assessment shall be completed either through screening or refined modeling to identify impacts and, if necessary, include performance standards and industry-recognized measures to be accomplished through, though is not limited to, the following measures:
    a. Construction equipment selection.
    b. Use of alternative fuels and engine retrofits temporary line power or electric equipment.
    c. Modified construction schedule; and
    d. Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.

18. Biological Impacts (Mitigation Measure 6.1): Removal of trees, shrubs, or weedy vegetation between February 1 and August 31 shall require a survey for nesting birds by a qualified wildlife biologist to the satisfaction of the Zoning Administrator. The survey shall be conducted no sooner than 14 days prior to the start of removal of trees, shrubs, or weedy vegetation. Survey results shall be valid for 21 days following the survey. Any removal of trees, shrubs, or weedy vegetation more than 21 days after a survey shall require a new survey. The area surveyed shall include all construction sites, access roads, and staging areas, as well as areas within 150 feet outside the boundaries of the areas to be cleared or as otherwise determined by the biologist.

    In the event that an active nest is discovered in the areas to be cleared, or in other habitats within 150 feet of construction boundaries, clearing and construction shall be postponed for at least two weeks or until a wildlife biologist has determined that the young have fledged (left the nest), the nest is vacated,

and there is no evidence of second nesting attempts.

A qualified biologist shall conduct preconstruction surveys for bats and suitable bat roosting habitat at work sites where culverts, structures and/or trees would be removed or otherwise disturbed prior to the initiation of construction. If bats or suitable bat roosting habitat is detected, CDFW shall be notified immediately for consultation and possible on-site monitoring.
The survey for nesting birds, bats and suitable bat roosting habitat may be conducted simultaneously.

19. Prior to the issuance of a building permit, the applicant shall implement a program that includes the following elements:
    a. Archeological and Cultural/Tribal resource identification training procedures for construction personnel
    b. Procedures for reporting archeological, cultural, and tribal resource discoveries

20. Historic and Cultural Resources (Mitigation Measure 7.2): If subsurface archeological or cultural resources are encountered during ground-disturbing activities, work in the immediate vicinity shall be stopped and a qualified archaeologist shall be retained to evaluate the finds following the procedures described in Mitigation Measures 7-3 of the San Pablo Avenue Specific Plan Environmental Impact Report. Project personnel shall not collect cultural resources. If human remains are found, special rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) shall apply, and there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Contra Costa County Coroner has been notified of the remains and has determined that the remains are not 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 any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

21. Paleontological Resources (Mitigation Measure 7.3): The applicant shall implement a program that includes the following elements:
    a. Paleontological resource identification training procedures for construction personnel
    b. Spot-checks by a qualified paleontological monitor of all excavations deeper than seven feet below ground surface.
    c. Procedures for reporting paleontological discoveries and their geologic context.

    If subsurface paleontological resources are encountered, excavation shall halt in the vicinity of the resources, and the project paleontologist shall evaluate the resource and its stratigraphic context. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. During monitoring, if potentially significant paleontological resources are found, “standard” samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of material collected and identified shall be provided to a local museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a local museum repository for permanent curatorship and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared and submitted to the Zoning Administrator.

22. Geology and Soils (Mitigation Measure 8.1): As required by the Building Official, subject to City review

and approval, the applicant shall complete and implement the geotechnical mitigation recommendations identified in the required site-specific geotechnical investigations and engineering studies, in coordination with City grading permit and building permit performance standards.

23. Noise (Mitigation 13.1): The Project shall incorporate the following noise attenuation measures into the final project design:
    a. Wall assembly. Except as modified in Section 5 below, exterior walls shall consist of 7/8" stucco over 2 layers of water- resistant barrier, over ½ metal lath, over ½" sheathing, over 2x6 studs spaced 16 inches apart on center, over ½" gypsum board, with 3 ½" inch batt insulation (minimum R-13) installed in the wall cavity.
    b. Provide mechanical ventilation. The project will require forced air mechanical ventilation to permit occupancy of units with windows open or closed at the discretion of the occupants.
    c. Window sound transmission class (STC) ratings. To ensure exterior wall assemblies
    d. provide exterior to interior noise reductions needed that achieve daily noise exposure (45 dBA Ldn) and maximum instantaneous (50 dBA Lmax in bedrooms / 55 dBA Lmax in other rooms), window assemblies shall consist of:
        i. North Building Section
            - Windows shall have an STC rating of 32 dBA or higher.
        ii. Central Building Section
            - Windows shall have an STC rating of 32 dBA or higher.
        iii. South Building Section
            - Dwelling units with any portion of their exterior façade within 140 feet of the centerline of I-80 shall incorporate windows with an STC rating of 36 dBA or higher.
            - All other dwelling units shall have an STC rating of 32 dBA or higher.
    e. Window assemblies: All window assemblies shall be well fitted, sealed, and weather stripped. Window assemblies (perimeter of assembly, any gaps during assembly installation) shall be sealed with an acoustical caulk/sealant to reduce noise.
    f. Enhanced Wall Assembly Construction. To ensure exterior wall assemblies in the south building section provide exterior to interior noise reductions that achieve daily noise exposure (45 dBA Ldn) and maximum instantaneous (50 dBA Lmax in bedrooms / 55 dBA Lmax in other rooms), the following enhanced wall assemblies shall be used for any 2nd to 6th floor exterior wall assemblies with all or part of the wall assembly within 140 feet of the centerline of I-80:
        i. Studios with 1 exterior wall and apartment living rooms shall use 24-inch stud spacing, or incorporate the design measures listed in ii below.
        ii. Corner studios with 2 exterior walls and apartment bedrooms shall:
            - Install fiberboard beneath the ½" exterior sheathing/stucco and ½" interior gypsum board; and
            - Studs shall be staggered/alternated in their attachment to exterior and interior wall panels; or
            - Metal channel studs shall be employed in wall construction.

24. Noise (Mitigation 13.2): New commercial development proposed in the same building as or adjacent to residential development could result in noise levels exceeding City standards.
    a. Noise levels at residential property lines from commercial development shall be maintained not in excess of the General Plan and Municipal Code limits.
    b. Ensure that noise-generating activities, such as maintenance and loading and unloading, are limited to the hours of 7:00 AM to 9:00 PM.

25. Noise and Land Use Compatibility / Construction Noise (Mitigation Measure 13.3): Construction equipment shall be well-maintained and used judiciously to be as quiet as practical. The following

measures shall be implemented to reduce noise from construction activities:

a. Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for the equipment.
b. Utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
c. Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
d. Prohibit unnecessary idling of internal combustion engines.
e. Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
f. Construct solid plywood fences around construction sites adjacent to operational business, residences, or noise-sensitive land uses.
g. If noise conflicts occur which are not irresolvable by proper scheduling, a temporary noise control blanket barrier shall be erected, as determined to be necessary by the Zoning Administrator, along building facades facing construction sites.
h. Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
i. Construction activities (including the loading and unloading of materials and truck movements) and excavating, grading, and filling activities (including warming of equipment motors) shall be limited to the hours of 7:00 AM to 6:00 PM on weekdays and to the hours of 9:00 AM and 5:00 PM on Saturdays. Work shall be prohibited on Sundays and Holidays.
j. Businesses, residences, or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing.
k. Designate a "construction liaison" who would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

26. Noise and Land Use Compatibility/Construction Noise (Mitigation 13-4): The following measures are recommended to reduce vibration from construction activities:
    a. Avoid impact pile driving where possible. Drilled piles causes lower vibration levels where geological conditions permit their use.
    b. Avoid using vibratory rollers and tampers near sensitive areas.
    c. In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies shall be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following:
        i. Identify sites that would include vibration compaction activities (such as pile driving) and have the potential to generate ground-borne vibration, and the sensitivity of nearby structures to ground-borne vibration. Vibration limits shall be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task.
        ii. Develop a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.
        iii. Design construction contingencies that would be implemented when vibration levels approached the limits.
        iv. At a minimum, conduct vibration monitoring during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.
        v. When vibration levels approach limits, suspend construction and implement contingencies to

either lower vibration levels or secure the affected structures.

vi. Conduct post-survey on structures under either of these circumstances: (a) when construction monitoring has indicated high vibration levels or (b) when complaints of damage have been made due to construction activities. Make appropriate repairs or compensation when damage has resulted from construction activities.

vii. Make appropriate repairs or compensation when damage has resulted from construction activities.

Prior to the issuance of a permit for grading or demolition, the project plans shall incorporate the following provisions due to construction vibration activities that could exceed 0.3 in/sec PPV at nearby buildings:

- Prohibit the use of heavy vibration-generating construction equipment within 20 feet of adjacent residential buildings.
- Use a smaller vibratory roller, such as the Caterpillar model CP433E vibratory compactor, when compacting materials within 20 feet of adjacent commercial buildings. Only use the static compaction mode when compacting materials within 15 feet of residential buildings.
- Avoid dropping heavy equipment or materials and use alternative methods for breaking up existing pavement, such as a pavement grinder, instead of dropping heavy objects, within 20 feet of adjacent residential buildings.
- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

Project Specific Conditions of Approval:

Public Works Department:

27. Prior to the issuance of a Building Permit, the project applicant must prepare a project-specific traffic study memo, prepared by a qualified professional (Licensed Engineer) to:
    a. Determine trip generation for the project and whether the net new vehicle miles traveled (VMT) generated by the project are within the parameters of the Specific Plan EIR traffic analysis
    b. Analyze multi-modal circulation patterns on-site and in the surrounding area resulting from the site plan, and
    c. Determine the applicable City Transportation Impact Fee (TIF) and West County Subregional Transportation Mitigation Program (STMP) Fee

28. Prior to the issuance of a Building Permit, the applicant shall update the Stormwater Control Plan to show the roof, as depicted on sheet A3.1, and indicate all roof leaders feeding into the treatment area.

29. Prior to the issuance of a Building Permit, the applicant shall update the Stormwater Control Plan and project plans to correct errors, including, but limited to: on page 7, DMA 1 is incorrectly shown to flow into IMP 1, DMA 3 is incorrectly shown to flow IMP 3; on the plan DMA's 2 and 16 are incorrectly shown to drain to IMP 4.

30. Prior to the issuance of a Building Permit, the plans shall be updated to show turning radius of all drive aisles in the proposed parking area.

31. Prior to the issuance of a Building Permit, the applicant shall obtain a Caltrans Encroachment Permit for any traffic control, roadwork, or trenching on San Pablo Avenue, and submit to the City of El Cerrito Public Works Department for a Public Works Encroachment Permit.

32. As part of the Building Permit Application, the applicant shall submit a draft Stormwater O&M Plan. Prior to issuance of a Certificate of Occupancy, the applicant shall submit a final Stormwater O&M Plan, including as-builts, and execute the Stormwater O&M Agreement.

33. Earthwork and grading operations in excess of 50 cubic yards will require the applicant to submit a detailed grading plan, obtain a Grading & Transportation Permit and pay all associated fees.

34. Prior to the issuance of a Building Permit, the applicant shall provide drainage plan for new roof and any rain leaders. All drainage is encouraged to stay on-site, draining towards treatment facilities.

35. Applicant shall replace sidewalk at locations per the discretion of the Public Works Director. Replacement of sidewalk flags along the property frontage is required to meet current City and ADA standards.

36. Any new street trees are required to have irrigation and an establishment period of 3 years prior to acceptance by the City. New street trees must be from the City Master Tree List and approved by the City Arborist before installation.

37. Applicant must obtain a Public Works Encroachment Permit and pay all associated fees for any street tree, sidewalk and driveway work. These improvements shall be designed and constructed per City Standard Details.

38. Prior to the issuance of a building permit, a design level geotechnical investigation shall be completed to assess specific soils and geologic conditions of each building site and proposed drainage improvements. Structural and foundation design recommendations made in such reports shall be incorporated into building plans. A copy of the stamped and signed geotechnical report for the site shall be provided by applicant to Public Works for reference.

39. As part of the Building Permit Application, the applicant shall submit a complete Erosion and Sediment Control Plan that will be implemented during construction.

Building Department:

40. Submitted plans must comply with the 2022 California Building Codes and City of El Cerrito ordinances.

41. Sheet A2.0: The primary route from the sidewalk to the lobby and leasing office is drawn through what appear to be stepped landings. Prior to issuance of a building permit, the plans shall be revised to provide an accessible route. (If the gray arcs are decorative tile, or otherwise level, compliance is already met.)

42. Sheets A2.0 & A3.0: Accessible parking spaces and accessible EV parking spaces are drawn with access aisles, but the access aisles do not connect to an accessible route to the nearby elevator and stairs – they instead require traversing the drive aisles, which is discouraged, and must at a minimum be marked with a crosswalk. [CBC 1109A.7 #3]

43. Sheet A2.0: The parking structure below the podium appears to be designed as an enclosed parking garage. Prior to issuance of a building permit, the plans shall be revised to provide a mechanical ventilation and exhaust system per CBC 406.6.2, or if the parking structure is open, provide openings complying with CBC 406.5.2 and document them on plans, similar to the window study on Sheet A6.2.

44. Prior to issuance of a building permit, the plans shall be revised to provide dimensions from the property line to the nearest building face at the narrowest point. (Currently dimensions are to the existing building instead.) Walls within 30' of the property line (not the neighboring building) shall be 1-hour rated per CBC Table 705.5. Similarly, openings are limited based on fire separation distance (to the property line) per CBC Table 705.8. The plans shall demonstrate opening area compliance.

45. Sheet A3.0: Two accessible parking spaces are shown; if the spaces are assigned then this meets the required accessible parking spaces of CBC 1109A.3 and 4. If parking spaces are unassigned, a greater rate (5 percent instead of 2 percent) of spaces must be provided. [CBC 1109A.5] Prior to issuance of a building permit, the plans shall be revised to include a table documenting the division of spaces for assigned and unassigned, and the corresponding accessible spaces for each type. (Note that per CBC 1109A.3, at least one accessible space of each offered type is required.)

46. Sheet A3.0: Prior to issuance of a building permit, the plans shall be revised to provide EV parking spaces per CALGreen 4.106.4.2.2. 72 parking spaces requires: 8 EV capable spaces (10%), 18 EV ready spaces (25%), and 4 EV chargers (5%). Please label the EV ready, capable, and installed charger spaces.

47. Sheet A3.2: All multifamily buildings under 10 stories must be solar ready per CEnC 110.10(a)3 at a minimum. Prescriptively, both a PV system and batteries are required – see Equation 170.2-D for required PV size, and equations 170.2-E and F for required battery energy and power capacities. Prior to issuance of a building permit, show the allocated PV and battery spaces on plans. [CEnC 170.2(g) and (h)]

Fire Department:

The following are City of El Cerrito Fire Department conditions/requirements specific to the proposed project at 1711-1755 Eastshore Blvd

48. Building Construction
    a. Building construction shall meet current California and El Cerrito Fire Codes, National Fire Protection Association Codes, and current California and El Cerrito Building Codes and amendments at the time of permit submittal.

49. Space Allocation for Fire Pump and Generator
    a. The Fire Department notes that the Ground Floor plan on sheet A2.0 indicates various MEP rooms. It is the responsibility of the applicant to include the necessary spaces for a Fire Pump and Generator. Note that the ECFD does not consider PG&E to be a reliable source of power in emergency conditions. Since the current plan does not indicate dedicated spaces for those components, it is the responsibility of the applicant to provide such space as required by an engineer and any associated code clearances/access.

50. Access
    a. Stairwells shall have roof access without the use of ladders.
    b. A "KNOX BOX" rapid entry system shall be installed with keys for all common areas at all primary access points utilized by the Fire Department.
    c. Final location of these boxes shall be approved by the Fire Department

51. Fire Flow Requirements
    a. Provide code analysis of required total firefighting water.
    b. Based on required fire flow, show on plans the number of fire hydrants required and locations

based on maximum spacing requirements.

c. All fire hydrants within 500' of the exterior of the structure shall be retrofitted with a wet hydrant system with two (2) 4-1/2" discharge and one (1) 2-1/2" discharge.
d. One fire hydrant shall be located withing 75' of the building's FDC.
e. If required, plans for fire service underground shall be submitted for review, approval, and permit under separate cover.

52. Fire Department Access/Gates/Roll up doors
    a. If gates or roll-up doors are installed, they shall be operable using a Knox Key.
    b. A "KNOX BOX" switch shall be installed to operate all gates or roll-up doors.
    c. Final Knox Box switch locations shall be approved by the Fire Department.
    d. Both the northern and southern fire department access roads exceed the maximum length allowed of 150 feet per CFC 503.2.5. A turnaround compliant with CFC D103.1 is required.
    e. The aerial access road widths only cover 50% of the side of the building parallel to Eastshore Boulevard. Approval from the Fire Marshal/Fire Chief is required to determine if this is sufficient access per CFC D105.3.
    f. Provide the turning radius for the fire department access roads per CFC 503.2.4. It appears that the access roads may not meet the turning radius requirements.

53. Fire Pump
    a. A fire pump may be required for a building of this size. Provide a preliminary water supply analysis for the sprinkler system. If a pump is required, the location of the fire pump room shall be provided, and the pump shall be installed per NFPA 20.
    b. Provide an alternate source of power for the fire pump per NFPA 20, section A9.3.2, Annex A, as well as Section 9.3.1
    c. Calculations shall be submitted that determine the size of the pump but minimum size to be 500 gallons per minute (GPM).

54. Fire Sprinkler / Underground
    a. Fire riser and FDC locations shall be submitted for review and approval.
    b. The fire riser / control room shall be accessible from the outside of the building and shall be clearly signposted.
    c. Fire FDC's shall be in locations acceptable for the fire department for emergency operations.
    d. Fire FDC's shall be interconnected with fire sprinklers and standpipes.
    e. All overhangs and balconies shall have sprinkler coverage.
    f. Fire sprinkler plans, and fire system underground pipe shall be submitted for review and approval. Deferred submittals will not be accepted.

55. Standpipes
    a. Standpipes shall be wet and shall be in all stairwells.
    b. All standpipes shall extend to the roof.
    c. A minimum flow of 250 gallons per minute shall be available at the highest point of each standpipe. Flow requirement shall be demonstrated at final approval.
    d. Fire Department valve connections shall be in the intermediate landings of stairwells on each level.
    e. Standpipe locations shall be provided so that interior hose pulls shall not exceed 150 feet to all portions of the interior of the building.

56. Smoke & Heat Vents
    a. Smoke & heat vents shall be installed on the roof above each stairwell.
    b. Smoke & heat vents shall be equipped with fusible link.

c. Smoke & heat vents shall be equipped with manual release for emergency operations.

57. Fire Alarm System
    a. Approved fire alarm system shall be required.
    b. Fire alarm plans shall be submitted for review and approval. Deferred submittals will not be accepted.

58. Smoke Detection
    a. Smoke detection shall be installed in each bedroom, in hallways adjacent to bedrooms, and one detector per floor level to be approved by Inspector.
    b. Smoke detectors shall be 120-volt powered with battery backup.
    c. Smoke detectors shall be interconnected when more than one is required per sleeping area.
    d. Single Station or Multiple-Station Smoke alarm(s) are not required to activate fire alarm system outside of sleeping area.

59. Carbon Monoxide Detectors
    a. Carbon monoxide alarm shall be installed outside of and adjacent to sleeping area in each residential unit.
    b. Carbon Monoxide detectors shall be installed in accordance with NFPA 720.
    c. Carbon Monoxide alarms shall be 120-volt powered with battery backup and shall be interconnected with the smoke detectors to be approved by Inspector.

60. Electrical
    a. Electrical equipment rooms shall be identified on the door(s) leading to room(s).
    b. All electrical breakers shall be labeled to their function.

61. Premises Identification
    a. Approved numbers or address shall be provided in such a position to be plainly visible and legible from the street fronting the property.
    b. Numbers shall be a minimum of 6” in height.
    c. Address shall be either internally or externally illuminated.

62. Emergency Egress
    a. Every sleeping room shall have at least one operable window or door approved for emergency escape or rescue in accordance with CFC 1030 to be approved by Inspector.
    b. Escape or rescue windows shall be installed in accordance with CFC 1030 to be approved by Inspector.
    c. Emergency electrical system to automatically illuminate means of egress.
    d. Exit signs shall be internally or externally illuminated.
    e. Braille or tactile exit route and exit signs shall be posted for ADA compliance.
    f. Emergency electrical system to automatically illuminate means of egress.
    g. Exit Plan signage required on each floor.

63. Emergency Responder Radio Communication System (ERRCS)
    a. Radio frequency signal strength analysis shall be conducted throughout the building.
    b. If radio signal strength deficiencies are identified, signal boosters shall be installed to achieve adequate signal strength and boosters shall be maintained.
    c. Boosters shall be compatible to the local emergency responders radio system for Fire and police.

64. Prior to building permit issuance, the applicant shall submit and obtain Fire Marshal approval of a site security plan addressing fire prevention practices (e.g., 24-hour site surveillance through cameras, security guards, waste dumpsters with metal

Stege Sanitary District:

65. The applicant shall not reroute the existing HDPE sanitary sewer main without first getting permission from the Stege Sanitary District Board of Directors. A formal request shall be submitted to the Stege Sanitary District by providing a letter of request to the Board including proposal, design, and reasoning for this reroute. This may only be addressed during a regularly scheduled Board Meeting.

66. All permanent structures must be at least 5 feet from the centerline off existing sanitary sewer mains.

67. Trash enclosures and all catch basins directed to the sanitary sewer shall be protected from rainwater and stormwater using grading design and protective roof overhangs.

68. If connecting to the existing HDPE pipe at Eastshore Boulevard, the applicant shall not cut into HDPE pipe. Either tap and electrofuse a new lateral connection or call TAP-TITE Company to connect a saddle.

69. All new open trench sewer laterals shall be minimum 6 inches diameter and may be clay or cast iron. (ABD, PVC or open trench HDPE is not permitted). This shall be noted on the plans prior to issuance of a building permit.

CERTIFICATION

I certify that this resolution was adopted by the El Cerrito Design Review Board at a regular meeting held on November 1, 2023, upon motion of Board member _____, second by Board member _____:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Sean Moss, AICP
Planning Manager



EL CERRITO APARTMENTS
EL CERRITO, CA

DESIGN REVIEW SUBMITTAL
JULY 5, 2023

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ELECTRICAL

E1.00	SITE ELECTRICAL PLAN
E1.01	SITE PHOTOMETRIC PLAN
E1.02	LUMINAIRE SPECIFICATIONS

SITE ZONING INFORMATION			
PARCEL	DISTRICT & TRANSECT ZONE	DOWNTOWN TRANSIT ORIENTED HIGHER INTENSITY MIXED-USE (TOHIMU)	
	ADJACENT ZONE(S)	TOHIMU	
	STREET TYPE(S)	GATEWAY STREET- EASTSHORE BLVD	
		EXISTING	**PROPOSED**
	LOT AREA	3.87 AC (168,577.2 SF)	1.82 AC (79,396 SF), 2.05 AC N.I.C.
	TOTAL BUILDING SQUARE FOOTAGE	50,905 SF*	219,622 SF
	LOT COVERAGE	0.3*	37,965 SF (PODIUM)/79,396 SF = 0.5
	FLOOR AREA RATIO	0.3*	2.8
	NUMBER OF UNITS	TOTAL : 315	
		STUDIO (S1, S2)	1 BEDROOM (A1,A2)
	TOTAL	295 (93.7%)	20 (6.3%)
		ALLOWABLE	**PROPOSED**
HEIGHT	HEIGHT	65'-0" MAXIMUM**	71'-0" (TOP OF PARAPET) 79'-0" (TOP OF STAIR)
	STORIES	3 STORIES RESIDENTIAL MIN.	5 STORIES RESIDENTIAL
GROSS FLOOR AREA	1ST FLOOR / PODIUM LEVEL		38,070 SF
	2ND FLOOR		35,795 SF
	3RD FLOOR		35,795 SF
	4TH FLOOR		35,795 SF
	5TH FLOOR		35,795 SF
	6th FLOOR		35,795 SF
	TOTAL		217,045 SF
AMENITY SPACE	ENCLOSED AMENITY		1,090 SF
	LEASING OFFICE / MAIL		1,340 SF
COMMON/ OPEN SPACE	PRIVATE/ COMMON SPACE	80SF/UNIT TOTAL: 315 x 80 SF = 25,200 SF	0
	PUBLIC OPEN SPACE	25SF/1000SF = 5,527 SF	WITHIN PROPERTY: 4,897 SF WITHIN RIGHT OF WAY: 2,660 SF
STREET TYPES	SIDEWALK AMENITY ZONE	4'-0" MIN.	4'-0" MIN.
	SIDEWALK PEDESTRIAN ZONE	6'-0" MIN. CLEAR PATH	6'-0" MIN. CLEAR PATH
	SIDEWALK ACTIVITY ZONE	0'-0" MIN.	0'-0" MIN.
ARCHITECTURE	BUILDING LENGTH	300' MAX.	263'-6" ALONG EASTSHORE BLVD
	SETBACKS:		
	GROUND FLOOR FRONT SETBACK	15' FOR RESIDENTIAL MAX 10' FOR NONRESIDENTIAL MAX	RESIDENTIAL ABOVE GROUND 0'-0" FROM PROPERTY LINE 10'-0" FROM STREET
	SIDE SETBACK	0'	30'-3"
	REAR SETBACK	NOT APPLICABLE- THE REAR SIDE OF THE PROJECT IS FACING 80 FREEWAY.	
	ENCROACHMENT INTO SETBACK		
	FRONT	2'-0" MAX.	0
	REAR	4'-0" MAX.	0
PARKING	BICYCLE		
	LONG TERM: 1 SPACE/ UNIT	315 UNITS x 1 = 315 SPACES	315 (BIKE HOOK PROPOSED WITHIN UNITS)
	SHORT TERM: 1 SPACE/ 10 UNITS	315 UNITS/ 10 = 32 SPACES	32
	CAR	RESIDENTIAL - UP TO 1/UNIT	60 STALLS (PODIUM) 8 STALLS (OFF-STREET)
BUILDING ANALYSIS	OCCUPANCY TYPE	R-2	
	CONSTRUCTION TYPE	FIVE (5) LEVELS TYPE III over ONE (1) LEVEL TYPE I-A	
	EXTERIOR WALLS	2 HR.	
	SPRINKLERED	YES	
	ELEVATOR	YES	
	ALLOWABLE HEIGHT	65'-0"**	
	PROPOSED HEIGHT	71'-0" (TOP OF PARAPET), 79'-0" (TOP OF STAIR)	
	ALLOWABLE # OF STORIES	3 STORIES RESIDENTIAL MIN./ 2 STORIES COMMERCIAL MIN.	
	PROPOSED # OF STORIES	5 STORIES RESIDENTIAL/ 1 STORY PODIUM	

* NOT IN CONTRACT (N.I.C.)
** 85'-0" MAXIMUM HEIGHT IF THE PROJECT IS CONSISTENT WITH THE AFFORDABLE HOUSING PROJECT, AS DEFINED BY STATE LAW

PROJECT TEAM

APPLICANT/OWNER:
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PO Box 260770
Encino, CA 91426
(818) 380-2600 Ext. 14
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agevorgian@amgland.com

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CIVIL ENGINEER:
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Contact: Alexandra Farros-Hoeppner
alexandra@bellecci.com

LANDSCAPE ARCHITECT:
VANDERTOOLEN ASSOCIATES
855 Bordeaux Way
Suite 240
Napa, CA 94558
(707) 224-2299
Contact: Kathryn Mendenhall
katy@vandertoolen.com

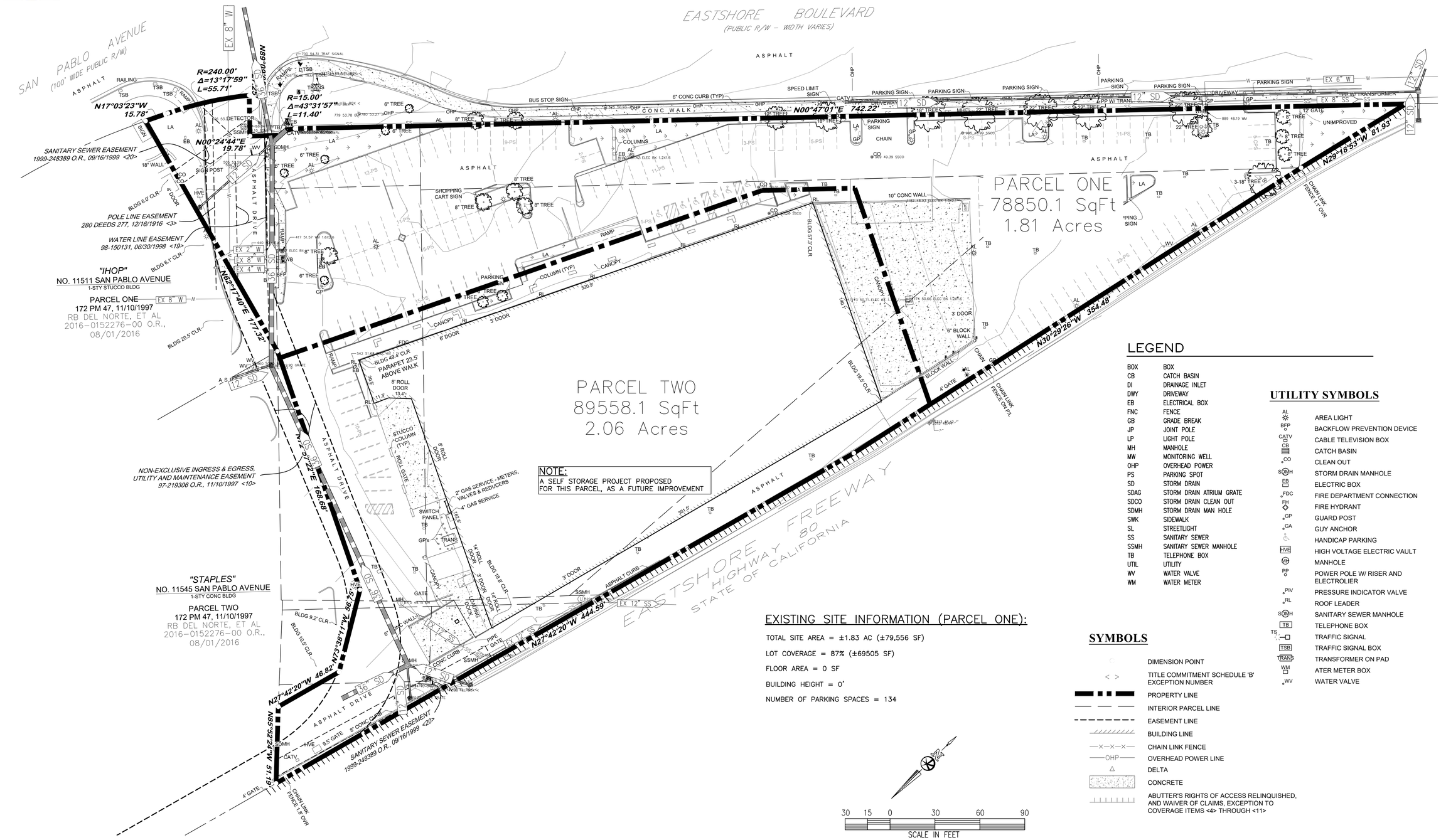
ELECTRICAL ENGINEER:
DC ENGINEERING
440 East Corporate Drive
Suite 103
Meridian, Idaho 83642
(208) 493-0067
Contact: Josh Farmer
jfarmer@dcengineering.net



VICINITY MAP

CS-1

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860
Architecture. Design. Relationships.



LEGEND

BOX	BOX
CB	CATCH BASIN
DI	DRAINAGE INLET
DWY	DRIVEWAY
EB	ELECTRICAL BOX
FNC	FENCE
GB	GRADE BREAK
JP	JOINT POLE
LP	LIGHT POLE
MH	MANHOLE
MW	MONITORING WELL
OHP	OVERHEAD POWER
PS	PARKING SPOT
SD	STORM DRAIN
SDAG	STORM DRAIN ATRIUM GRATE
SDCO	STORM DRAIN CLEAN OUT
SDMH	STORM DRAIN MAN HOLE
SWK	SIDEWALK
SL	STREETLIGHT
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
TB	TELEPHONE BOX
UTIL	UTILITY
WV	WATER VALVE
WM	WATER METER

UTILITY SYMBOLS

AL	AREA LIGHT
BFP	BACKFLOW PREVENTION DEVICE
CATV	CABLE TELEVISION BOX
CB	CATCH BASIN
CO	CLEAN OUT
SDMH	STORM DRAIN MANHOLE
EB	ELECTRIC BOX
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT
GP	GUARD POST
GA	GUY ANCHOR
	HANDICAP PARKING
HVE	HIGH VOLTAGE ELECTRIC VAULT
MH	MANHOLE
PP	POWER POLE W/ RISER AND ELECTROLIER
PIV	PRESSURE INDICATOR VALVE
RL	ROOF LEADER
SSMH	SANITARY SEWER MANHOLE
TB	TELEPHONE BOX
TS	TRAFFIC SIGNAL
TSB	TRAFFIC SIGNAL BOX
TRANS	TRANSFORMER ON PAD
WM	ATER METER BOX
WV	WATER VALVE

EXISTING SITE INFORMATION (PARCEL ONE):

TOTAL SITE AREA = ±1.83 AC (±79,556 SF)

LOT COVERAGE = 87% (±69505 SF)

FLOOR AREA = 0 SF

BUILDING HEIGHT = 0'

NUMBER OF PARKING SPACES = 134

SYMBOLS

	DIMENSION POINT
< >	TITLE COMMITMENT SCHEDULE 'B' EXCEPTION NUMBER
	PROPERTY LINE
	INTERIOR PARCEL LINE
	EASEMENT LINE
	BUILDING LINE
—X—X—X—	CHAIN LINK FENCE
—OHP—	OVERHEAD POWER LINE
	DELTA
	CONCRETE
	ABUTTER'S RIGHTS OF ACCESS RELINQUISHED, AND WAIVER OF CLAIMS, EXCEPTION TO COVERAGE ITEMS <4> THROUGH <11>

30 15 0 30 60 90

SCALE IN FEET

NOTE:
BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION SHOWN HEREON WAS PREPARED BY:
TRONOFF ASSOC. – LAND SURVEYORS
1255 STARBOARD DR., SUITE A
WEST SACRAMENTO,
AUGUST 2016

BELLECCI & ASSOCIATES MAKES NO WARRANT OR REPRESENTATION THAT THE BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION SHOWN HEREON IS COMPLETE AND ACCURATE.

5TH SUBMITTAL

PRELIMINARY
NOT FOR CONSTRUCTION

BY	DATE	REVISIONS

Bellecci
Intelligent Infrastructure
925 • 685 • 4569 bellecci.com

DATE 03/17/2023
DRAWN BY PI
CHECKED BY AFH

REGISTERED PROFESSIONAL ENGINEER
ALEXANDRA F. HOEPPNER
No. 91297
PRELIMINARY
CIVIL
STATE OF CALIFORNIA

EL CERRITO APARTMENTS
1755 EASTSHORE, LLC
EL CERRITO CONTRA COSTA COUNTY CALIFORNIA

EXISTING CONDITIONS

SHEET C-101 OF 105
JOB NO. 18037

811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG. SAFE DIGGING PARTNER

EASTSHORE BLVD.

BUILDING A

PEERLESS AVE.

EASTSHORE FREEWAY
I-80

INGRESS/EGRESS EASEMENT

R=240.00'
Δ=13°17'59"
L=55.71'

R=15.00'
Δ=43°31'57"
L=11.40'

N17°03'23"W 15.78'

N00°24'44"E 19.78'

N89°09'51"E 27.25'

N00°47'01"E 742.22'

N29°18'53"W 81.93'

N30°29'26"W 354.48'

N27°42'20"W 444.59'

N72°57'22"E 168.68'

N27°42'20"W 46.82'

N73°38'11"W 86.75'

N85°22'53"W 51.19'

N62°17'40"E 177.32'

R94.0'

R173.6'

R174.7'

4'-0" AMENITY ZONE

6.0' SIDEWALK

4.0' PLANTER

1.0' SIDEWALK

299.0'

280.4'

188.2'

188.7'

262.1'

150.0'

112.1'

130.3'

72.5'

70.0'

38.5'

18.0'

11.0'

9.0'

25.7'

24.0'

19.0'

16.0'

26.0'

43.6'

6.3'

5.6'

5.0'

4.8'

3.1'

17.4'

OHP

EV

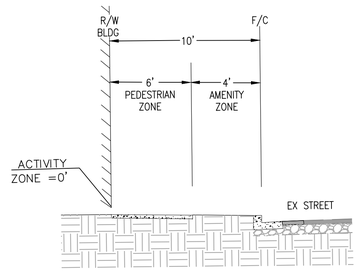
BUILDING OUTLINE ABOVE

PROJECT INFORMATION TABLE

	EXISTING	PROPOSED
BUILDING FOOTPRINT(S)*	0 SF	37,862 SF
IMPERVIOUS SURFACE	87%	70%
PERVIOUS/LANDSCAPE SURFACE	13%	30%
LOT COVERAGE RATIO	0	0.5
FLOOR AREA RATIO	0	2.8

LIST OF OFFSITE IMPROVEMENTS TO BE COMPLETED DURING FINAL DESIGN:

1. NEW SIDEWALK &PLANTER STRIP
2. NEW ADA CURB RAMP
3. MEDIAN ISLAND ON EASTSHORE & PEERLESS AS A ONE WAY (TO BE COORDINATED WITH CITY'S PROJECT.)
4. FIRE ACCESS ROAD ACCESS
5. EASEMENTS WILL BE GRANTED BY/FOR BOTH PROPERTIES



A–A
NTS

LEGEND

- EASEMENT LINE
- PROJECT BOUNDARY/PROPERTY LINE
- BUILDING OUTLINE
- CONCRETE PATH/PLAZA
- PERVIOUS PAVERS/GRASS PAVER
- LANDSCAPE/TURF
- FLOW–THROUGH PLANTER
- STORM DRAIN MANHOLE
- STORM DRAIN INLET

30 15 0 30 60 120
SCALE IN FEET

NOTE:

1. ALL WALKWAYS TO MEET ADA STANDARDS.
2. EVA DRIVEWAY TO COMPLY WITH FIRE DEPARTMENT STANDARDS.
3. PEERLESS AVE. WILL BE DESIGNED AS A ONE–WAY STREET, PER CITY REQUEST. DETAILS TO COME DURING IMPROVEMENT PLAN PROCESS AND PER S PRELIMINARY TRAFFIC STUDY.

5TH SUBMITTAL

PRELIMINARY
NOT FOR CONSTRUCTION

BY	DATE	REVISIONS

Bellecci
Intelligent Infrastructure
925 • 685 • 4588
bellecci.com

03/17/2023 DATE
PI DRAWN BY
AFH CHECKED BY

REGISTERED PROFESSIONAL ENGINEER ALEXANDROS HREPHNIAN No. 91347 PRELIMINARY FOR CONSTRUCTION STATE OF CALIFORNIA

1755 EASTSHORE, LLC

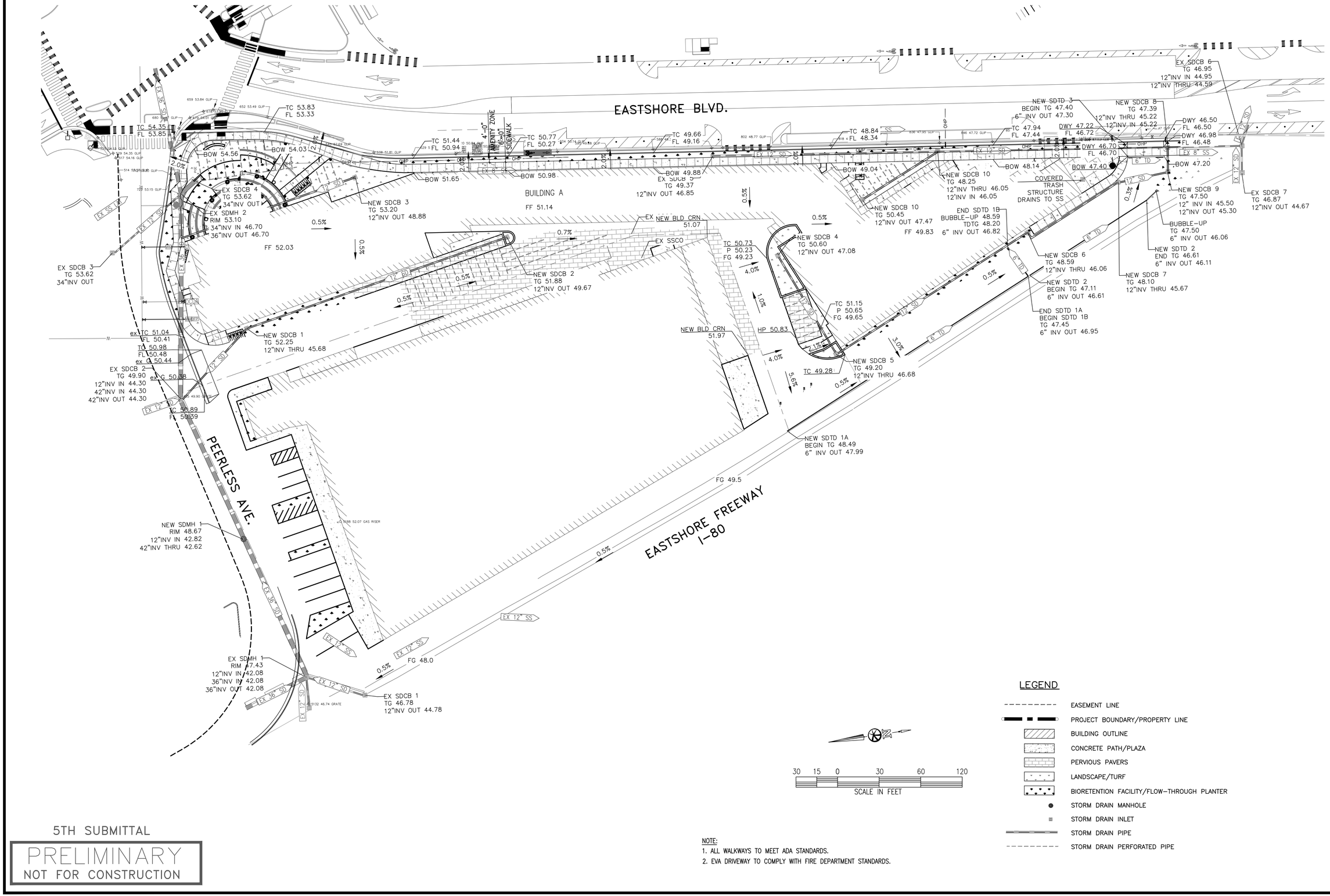
EL CERRITO APARTMENTS

DIMENSIONED SITE PLAN

EL CERRITO CONTRA COSTA COUNTY CALIFORNIA

SHEET C–102 OF 105

JOB NO. 18037



LEGEND

- EASEMENT LINE
- PROJECT BOUNDARY/PROPERTY LINE
- BUILDING OUTLINE
- CONCRETE PATH/PLAZA
- PERVIOUS PAVERS
- LANDSCAPE/TURF
- BIORETENTION FACILITY/FLOW-THROUGH PLANTER
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- STORM DRAIN PIPE
- STORM DRAIN PERFORATED PIPE

NOTE:
1. ALL WALKWAYS TO MEET ADA STANDARDS.
2. EVA DRIVEWAY TO COMPLY WITH FIRE DEPARTMENT STANDARDS.

5TH SUBMITTAL

PRELIMINARY
NOT FOR CONSTRUCTION

BY	DATE	REVISIONS

Bellecci
Intelligent Infrastructure
925 • 685 • 4589
bellecci.com

03/17/2023
DATE
PI
DRAWN BY
AFH
CHECKED BY

REGISTERED PROFESSIONAL ENGINEER
ALEX HARDEE
No. 91937
PRELIMINARY
CIVIL ENGINEERING
STATE OF CALIFORNIA

1755 EASTSHORE, LLC

EL CERRITO APARTMENTS

GRADING & DRAINAGE PLAN

EL CERRITO CONTRA COSTA COUNTY CALIFORNIA

SHEET C-103 OF 105

JOB NO. 18037

811 CALL 811 BEFORE YOU DIG SAFE DIGGING PARTNER

EASTSHORE BLVD.

NEW SSMH 5
RIM 54.0±
8"INV IN 44.48
8"INV OUT 44.28

EX SSMH 4
RIM 53.34
8" INV IN 44.59
8"INV OUT 44.59

EX SDCB 4
TG 53.62
34"INV OUT

EX SDMH 2
RIM 53.10
34"INV IN 46.70
36"INV OUT 46.70

FIRE HYDRANT 1
(EX)

EX SDCB 3
TG 53.62
34"INV OUT

IRRIGATION

FIRE CONNECTION FOR BUILDING A

UPSIZE EX WATER LATERAL & WATER METER TO BE USED FOR BUILDING A DOMESTIC

FIRE

DOMESTIC

NEW SDCB 3
TG 53.20
12"INV OUT 48.88

NEW SS CONNECTION FOR BUILDING B

NEW SSMH 6
RIM 50.2±
8"INV THRU 42.25
NEW 6" INV IN 42.45

EX SDCB 5
TG 49.37
12"INV OUT 46.85

EX SSCO

EX SS CONNECTION FOR BUILDING B SEE NOTE 3

BUILDING A

NEW SDCB 2
TG 51.88
12"INV OUT 49.67

INGRESS/EGRESS EASEMENT

NEW SDCB 1
TG 52.25
12"INV THRU 45.68

EX SDCB 2
TG 49.90
12"INV IN 44.30
42"INV IN 44.30
42"INV OUT 44.30

PEERLESS AVE.

NEW SDMH 1
RIM 48.67
12"INV IN 42.82
42"INV THRU 42.62

EX SSMH 3
RIM 49.15
12"INV OUT 44.65

EX SDMH 1
RIM 47.43
12"INV IN 42.08
36"INV IN 42.08
36"INV OUT 42.08

EX SSMH 2
RIM 47.58
12"INV IN 44.38
12"INV OUT 44.25

EX SDCB 1
TG 46.78
12"INV OUT 44.78

EX SDCB 1A
TG 46.74
12"INV OUT 41.24
TO BE REMOVED

EX SSMH 1
RIM 48.19
12"INV IN 44.32
12"INV OUT 44.12

EASTSHORE FREEWAY
I-80

EX SSMH 5 ABND
RIM 49.09
6"INV IN 41.29
8"INV THRU 41.29

NEW 4" SS CONNECTION
4" INV IN 41.34
FOR TRASH ENCLOSURE

NEW SSMH 7
RIM 48.2±
8"INV IN 40.51
8"INV OUT 40.31

NEW SSMH 8
END NEW, BEGIN EX
RIM 47.5±
8"INV IN 40.32
8"INV OUT 40.12

NEW SDTD 3
BEGIN TG 47.40
6" INV OUT 47.30

NEW SDCB 10
TG 48.25
12"INV THRU 46.05
12"INV IN 46.05

NEW SSCB 1
TG 48.80
4"INV 40.99

FIRE HYDRANT 2
(NEW)

NEW SDCB 10
TG 50.45
12"INV OUT 47.47

END SDTD 1B
BUBBLE-UP 48.59
TDTG 48.20
6" INV OUT 46.82

NEW SDCB 4
TG 50.60
12"INV OUT 47.08

WATER EASEMENT

NEW SDCB 5
TG 49.20
12"INV THRU 46.68

NEW SDTD 1A
BEGIN TG 48.49
6" INV OUT 47.99

NEW SDCB 6
TG 48.59
12"INV THRU 46.06

NEW SDTD 2
BEGIN TG 47.11
6" INV OUT 46.61

END SDTD 1A
BEGIN SDTD 1B
TG 47.45
6" INV OUT 46.95

NEW SDCB 7
TG 48.10
12"INV THRU 45.67

EX SDCB 6
TG 46.95
12"INV IN 44.95
12"INV THRU 44.59

NEW SDCB 8
TG 47.39
12"INV THRU 45.22
12"INV IN 45.22

NEW SDCB 9
TG 47.50
12" INV IN 45.50
12"INV OUT 45.30

BUBBLE-UP
TG 47.50
6" INV OUT 46.06

NEW SDTD 2
END TG 46.61
6" INV OUT 46.11

EX SDCB 7
TG 46.87
12"INV OUT 44.67

INGRESS/EGRESS EASEMENT

30 15 0 30 60 120
SCALE IN FEET

LEGEND

- EASEMENT LINE
- PROJECT BOUNDARY/PROPERTY LINE
- BUILDING OUTLINE
- CONCRETE PATH/PLAZA
- PERVIOUS PAVERS
- LANDSCAPE/TURF
- BIORETENTION FACILITY/FLOW-THROUGH PLANTER
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- STORM DRAIN
- SANITARY SEWER
- WATER LINE
- ABANDON EX
- STORM TRENCH DRAIN

NOTE:
1. UTILITIES TO BE CONSTRUCTED PER CITY STANDARDS.
2. WATER LINES ARE PROPOSED. FINAL DESIGN PER EBMUD.

PRELIMINARY
NOT FOR CONSTRUCTION

BY	DATE	REVISIONS

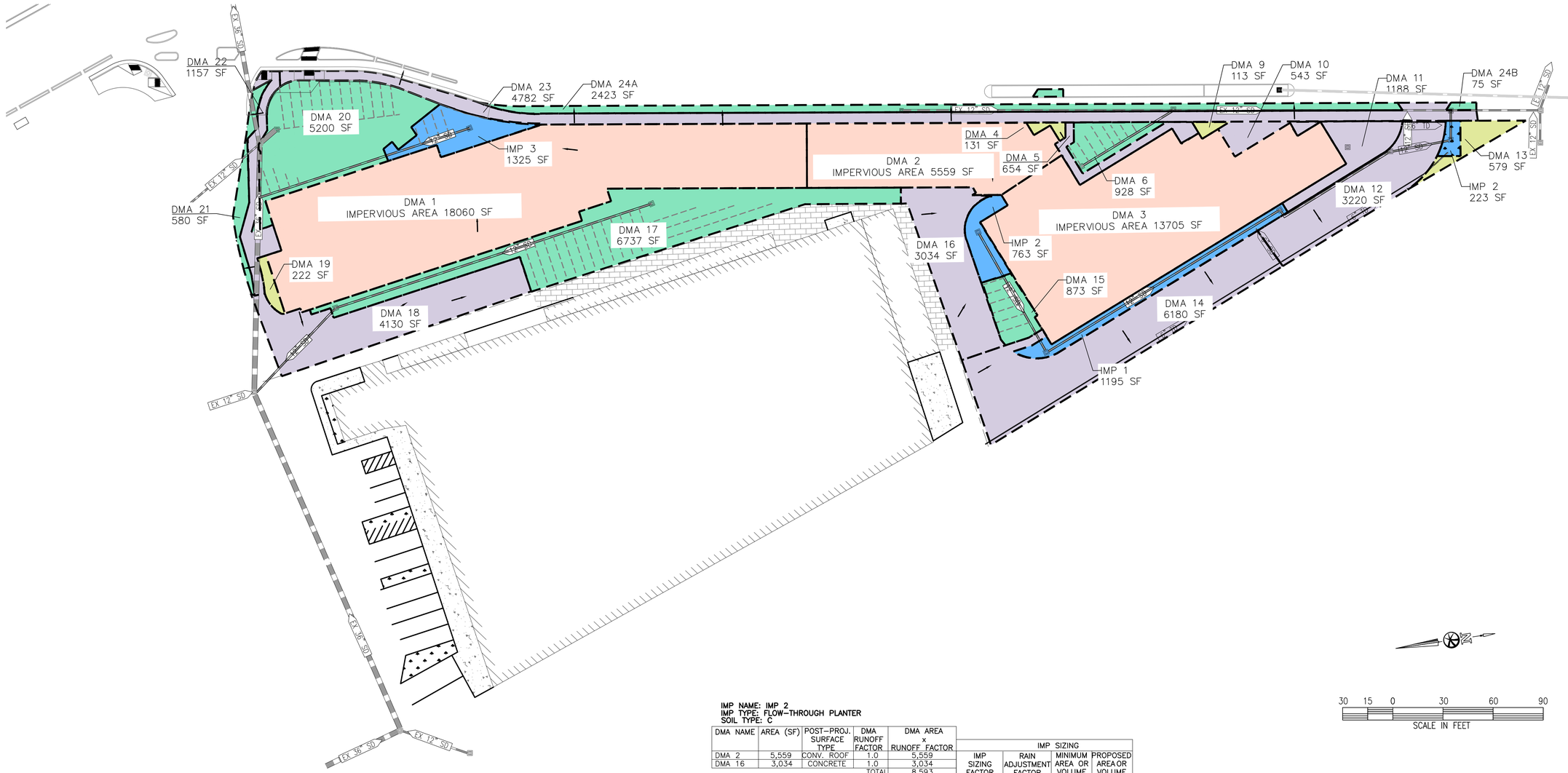
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03/17/2023 DATE
PI DRAWN BY
AFH CHECKED BY

REGISTERED PROFESSIONAL ENGINEER ALEXANDRA F. HOEPPNER No. 91397 CIVIL STATE OF CALIFORNIA
NOT FOR CONSTRUCTION PRELIMINARY

1755 EASTSHORE, LLC
EL CERRITO APARTMENTS
UTILITY PLAN
EL CERRITO CONTRA COSTA COUNTY CALIFORNIA

SHEET C-104 OF 105
JOB NO. 18037



30 15 0 30 60 90
SCALE IN FEET

IMP SIZING SUMMARY

I. Self-Treating Areas

DMA Name	Area (sq ft)
DMA4	131
DMA9	113
DMA13	579
DMA19	222

II. Self-Retaining Areas

DMA Name	Area (sq ft)
DMA6	928
DMA15	873
DMA17	6737
DMA20	5200
DMA21	580
DMA24A	2423
DMA24B	75

III. Areas Draining to Self-Retaining Areas

DMA Name	Area (sq ft)	Surface Type	Runoff Factor	Product (Area x Runoff Factor) [A]	Receiving Self Retaining DMA	Receiving Self-Retaing DMA Area (sq ft) [B]	Ratio [A]/[B]
DMA5	654.0	Concrete or Asphalt	1.0	654.0	DMA6	928	0.70
DMA18	4,130.0	Concrete or Asphalt	1.0	4,130.0	DMA17	6,737	0.61
DMA22	1,157.0	Concrete or Asphalt	1.0	1,157.0	DMA21	580	1.99
DMA23	4,782.0	Concrete or Asphalt	1.0	4,782.0	DMA24A	2,423	1.97

IMP NAME: IMP 1
IMP TYPE: FLOW-THROUGH PLANTER
SOIL TYPE: C

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	IMP SIZING			
					IMP SIZING FACTOR	RAIN ADJUSTMENT FACTOR	MINIMUM AREA OR VOLUME	PROPOSED AREA OR VOLUME
DMA 3	13,705	CONV. ROOF	1.0	13,705				
DMA 14	6180	CONCRETE	1.0	6,180				
			TOTAL	19,885				
			AREA		0.040	1.000	795	1,195

IMP NAME: IMP 2
IMP TYPE: FLOW-THROUGH PLANTER
SOIL TYPE: C

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	IMP SIZING			
					IMP SIZING FACTOR	RAIN ADJUSTMENT FACTOR	MINIMUM AREA OR VOLUME	PROPOSED AREA OR VOLUME
DMA 2	5,559	CONV. ROOF	1.0	5,559				
DMA 16	3,034	CONCRETE	1.0	3,034				
			TOTAL	8,593				
			AREA		0.040	1.000	344	763

IMP NAME: IMP 3
IMP TYPE: FLOW-THROUGH PLANTER
SOIL TYPE: C

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	IMP SIZING			
					IMP SIZING FACTOR	RAIN ADJUSTMENT FACTOR	MINIMUM AREA OR VOLUME	PROPOSED AREA OR VOLUME
DMA 1	18,060	CONV. ROOF	1.0	18,060				
			TOTAL	18,060				
			AREA		0.040	1.000	722	1325

IMP NAME: IMP 4
IMP TYPE: FLOW-THROUGH PLANTER
SOIL TYPE: C

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	IMP SIZING			
					IMP SIZING FACTOR	RAIN ADJUSTMENT FACTOR	MINIMUM AREA OR VOLUME	PROPOSED AREA OR VOLUME
DMA 2	427	CONCRETE	1.0	427				
DMA 11	1,188	CONCRETE	1.0	1,188				
DMA 16	2,996	ASPHALT	1.0	3,220				
			TOTAL	4,835				
			AREA		0.040	1.000	193	223

NOTES:
1. HOLLAND 60MM PERVIOUS PAVERS OR APPROVED EQUAL TO BE USED FOR PERMEABLE PAVERS.

LEGEND

- PROJECT BOUNDARY
- DMA BOUNDARY
- PROPOSED STORM DRAIN LINE
- 4" PERFORATED PIPE
- EASEMENT LINE
- IMPERVIOUS DMA – CONVENTIONAL ROOF
- IMPERVIOUS DMA – ASPHALT/CONCRETE
- SELF-RETAINING LANDSCAPE/PERV. PAVERS
- SELF-TREATING LANDSCAPE
- BIORETENTION/FLOW-THROUGH PLANTER
- DIRECTION OF FLOW
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- PROPOSED STORM TRENCH DRAIM=N

5TH SUBMITTAL

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BY	DATE	REVISIONS

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REGISTERED PROFESSIONAL ENGINEER ALEJANDRO F. HOPPNER No. 91347 CIVIL STATE OF CALIFORNIA
PRELIMINARY NOT FOR CONSTRUCTION

1755 EASTSHORE, LLC

STORMWATER CONTROL PLAN

EL CERRITO APARTMENTS
EL CERRITO CONTRA COSTA COUNTY CALIFORNIA

SHEET C-105 OF 105
JOB NO. 18037



AERIAL VIEW



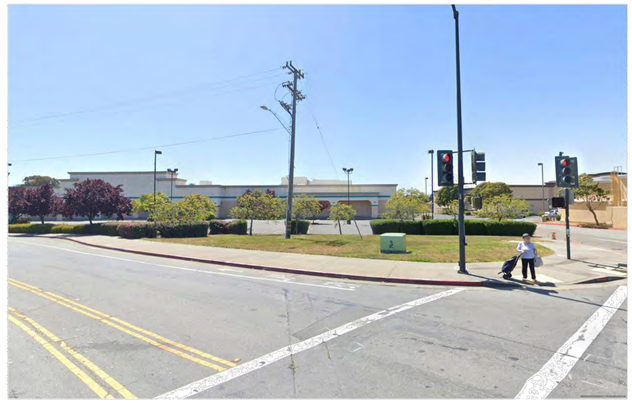
STREET VIEW 1



STREET VIEW 2



STREET VIEW 3



STREET VIEW 4



STREET VIEW 5



STREET VIEW 6

NORTH

A1.0

EL CERRITO APARTMENTS

EL CERRITO, CA

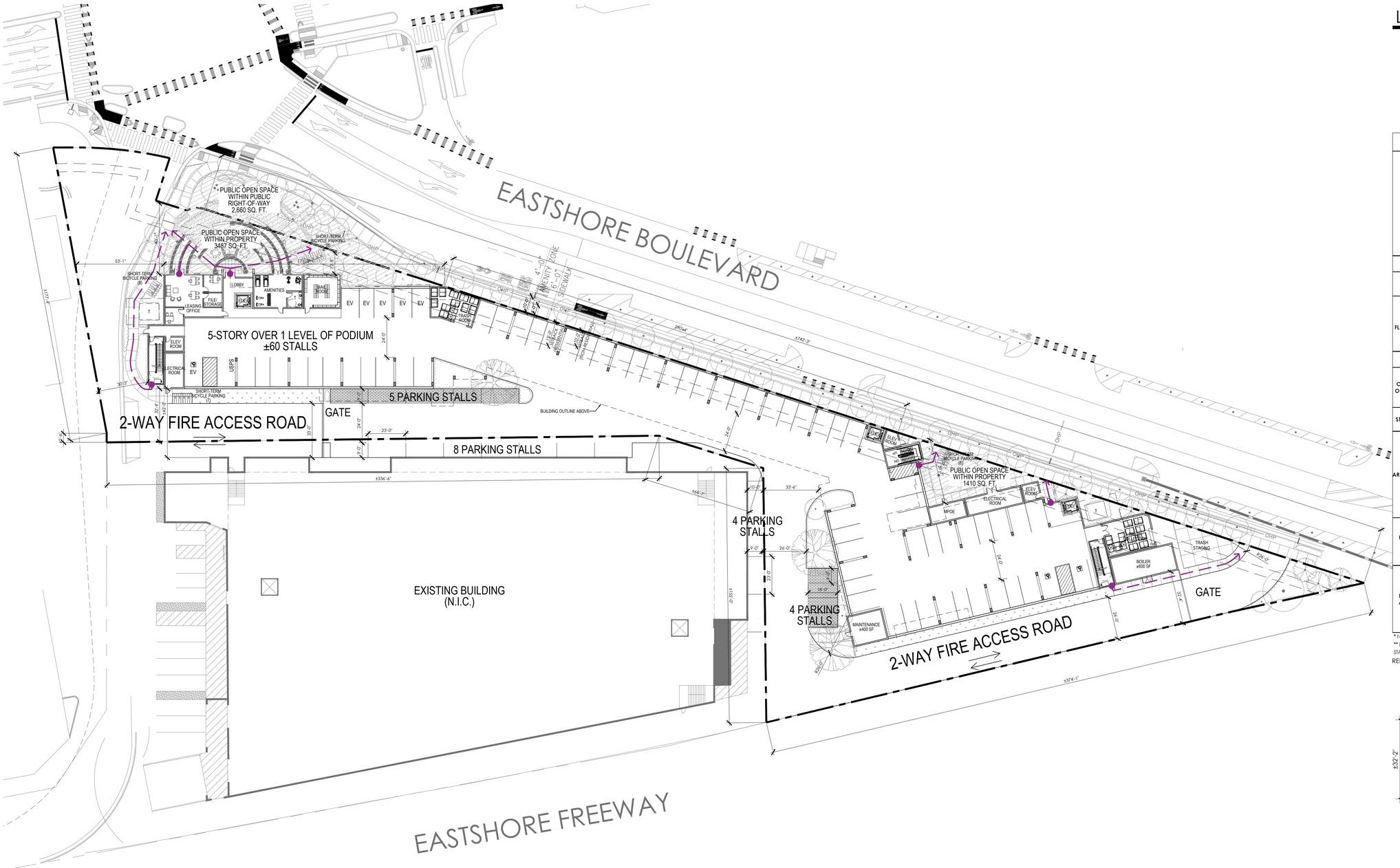
SITE PHOTOS

DATE: 07-05-2023
JOB NO.: 2017-694

AMG & ASSOCIATES

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LEGEND

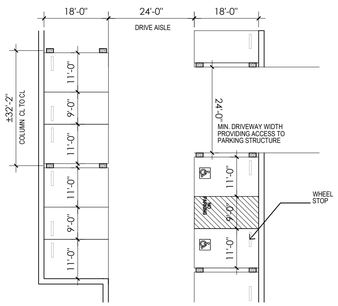
PRIMARY PATH OF TRAVEL

SITE ZONING INFORMATION

PARCEL	DISTRICT & TRANSECT ZONE	DOWNTOWN TRANSIT ORIENTED HIGHER INTENSITY MIXED-USE (TOHIMU)	
	ADJACENT ZONE(S)	TOHIMU	
	STREET TYPE(S)	GATEWAY STREET- EASTSHORE BLVD	
		EXISTING	**PROPOSED**
	LOT AREA	3.87 AC (168,577.2 SF)	1.82 AC (79,396 SF), 2.05 AC N.I.C.
	TOTAL BUILDING SQUARE FOOTAGE	50,905 SF*	219,622 SF
	LOT COVERAGE	0.3*	37,965 SF (PODIUM)/79,396 SF = 0.5
	FLOOR AREA RATIO	0.3*	2.8
	NUMBER OF UNITS	TOTAL : 315	
		STUDIO (S1, S2)	1 BEDROOM (A1, A2)
	TOTAL	295 (93.7%)	20 (6.3%)
		ALLOWABLE	**PROPOSED**
HEIGHT	HEIGHT	65'-0" MAXIMUM**	71'-0" (TOP OF PARAPET) 79'-0" (TOP OF STAIR)
	STORIES	3 STORIES RESIDENTIAL MIN.	5 STORIES RESIDENTIAL
GROSS FLOOR AREA	1ST FLOOR / PODIUM LEVEL		38,070 SF
	2ND FLOOR		35,795 SF
	3RD FLOOR		35,795 SF
	4TH FLOOR		35,795 SF
	5TH FLOOR		35,795 SF
	6th FLOOR		35,795 SF
	TOTAL		217,045 SF
AMENITY SPACE	ENCLOSED AMENITY		1,090 SF
	LEASING OFFICE / MAIL		1,340 SF
COMMON/ OPEN SPACE	PRIVATE/ COMMON SPACE	80SF/UNIT TOTAL: 315 x 80 SF = 25,200 SF	0
	PUBLIC OPEN SPACE	25SF/1000SF = 5,527 SF	WITHIN PROPERTY: 4,897 SF WITHIN RIGHT OF WAY: 2,660 SF
STREET TYPES	SIDEWALK AMENITY ZONE	4'-0" MIN.	4'-0" MIN.
	SIDEWALK PEDESTRIAN ZONE	6'-0" MIN. CLEAR PATH	6'-0" MIN. CLEAR PATH
	SIDEWALK ACTIVITY ZONE	0'-0" MIN.	0'-0" MIN.
ARCHITECTURE	BUILDING LENGTH	300' MAX.	263'-6" ALONG EASTSHORE BLVD
	SETBACKS:		
	GROUND FLOOR FRONT SETBACK	15' FOR RESIDENTIAL MAX 10' FOR NONRESIDENTIAL MAX	RESIDENTIAL ABOVE GROUND 0'-0" FROM PROPERTY LINE 10'-0" FROM STREET
	SIDE SETBACK	0'	30'-3"
	REAR SETBACK	NOT APPLICABLE- THE REAR SIDE OF THE PROJECT IS FACING 80 FREEWAY.	
	ENCROACHMENT INTO SETBACK		
	FRONT	2'-0" MAX.	0
	REAR	4'-0" MAX.	0
PARKING	BICYCLE		
	LONG TERM: 1 SPACE/ UNIT	315 UNITS x 1 = 315 SPACES	315 (BIKE HOOK PROPOSED WITHIN UNITS)
	SHORT TERM: 1 SPACE/ 10 UNITS	315 UNITS/ 10 = 32 SPACES	32
	CAR	RESIDENTIAL - UP TO 1/UNIT	60 STALLS (PODIUM) 8 STALLS (OFF-STREET)
BUILDING ANALYSIS	OCCUPANCY TYPE	R-2	
	CONSTRUCTION TYPE	FIVE (5) LEVELS TYPE III over ONE (1) LEVEL TYPE I-A	
	EXTERIOR WALLS	2 HR.	
	SPRINKLERED	YES	
	ELEVATOR	YES	
	ALLOWABLE HEIGHT	65'-0"**	
	PROPOSED HEIGHT	71'-0" (TOP OF PARAPET), 79'-0" (TOP OF STAIR)	
	ALLOWABLE # OF STORIES	3 STORIES RESIDENTIAL MIN./ 2 STORIES COMMERCIAL MIN.	
	PROPOSED # OF STORIES	5 STORIES RESIDENTIAL/ 1 STORY PODIUM	

* NOT IN CONTRACT (N.I.C.)
** 85'-0" MAXIMUM HEIGHT IF THE PROJECT IS CONSISTENT WITH THE AFFORDABLE HOUSING PROJECT, AS DEFINED BY STATE LAW

REFER TO CIVIL AND LANDSCAPE EXHIBITS FOR MORE INFORMATION



TYPICAL STANDARD PARKING GARAGE STALL

NORTH

1"=30'-0" 0 15' 30' 60' 90'

CONCEPTUAL SITE PLAN

A2.0

EL CERRITO APARTMENTS

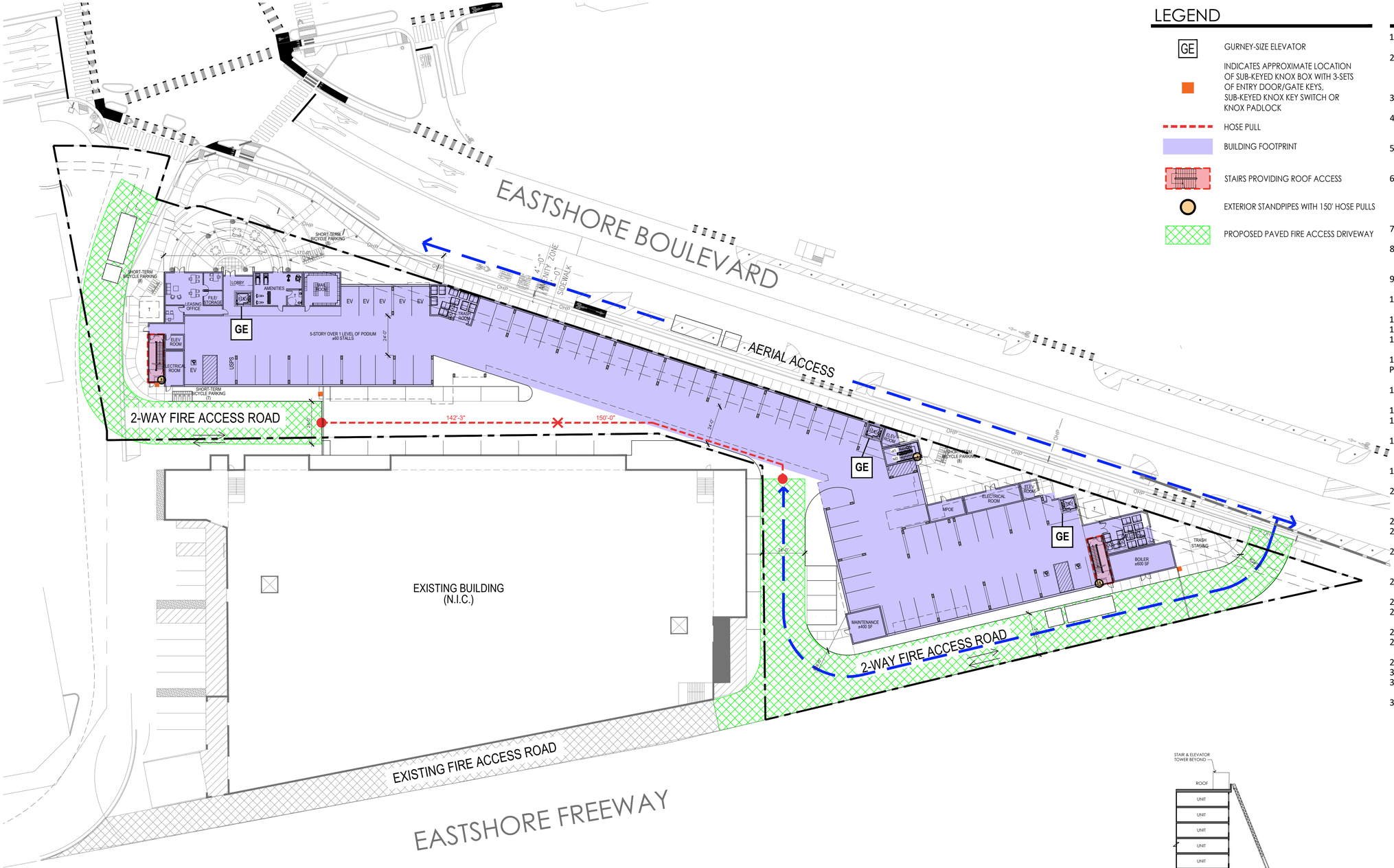
AMG & ASSOCIATES

EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

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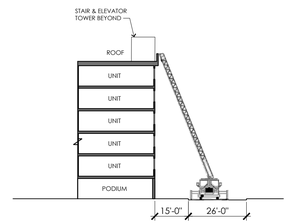


LEGEND

- GE — GURNEY-SIZE ELEVATOR
- INDICATES APPROXIMATE LOCATION OF SUB-KEYED KNOX BOX WITH 3-SETS OF ENTRY DOOR/GATE KEYS, SUB-KEYED KNOX KEY SWITCH OR KNOX PADLOCK
- HOSE PULL
- BUILDING FOOTPRINT
- STAIRS PROVIDING ROOF ACCESS
- EXTERIOR STANDPIPES WITH 150' HOSE PULLS
- PROPOSED PAVED FIRE ACCESS DRIVEWAY

NOTES

1. BUILDING CONSTRUCTION SHALL MEET CURRENT BUILDING, CALIFORNIA FIRE CODES, AND THE EL CERRITO FIRE CODE.
2. EMERGENCY VEHICLE ACCESS (EVA) ROADS SHALL BE A MINIMUM OF 26 FEET IN WIDTH AND 13 FEET 6 INCHES OF UNOBSTRUCTED VERTICAL CLEARANCE WITH AN ALL-WEATHER DRIVING SURFACE THAT CAN SUPPORT A MINIMUM OF 75,000 POUNDS.
3. WHERE A FIRE HYDRANT IS REQUIRED AND LOCATED ON AN EVA THE MINIMUM WIDTH SHALL BE 26 FEET, EXCLUSIVE OF SHOULDERS.
4. WHERE THE VERTICAL DISTANCE BETWEEN GRADE PLANE AND THE HIGHEST ROOF SURFACE EXCEEDS 30 FEET AN APPROVED AERIAL FIRE APPARATUS ACCESS ROAD SHALL BE PROVIDED.
5. AERIAL FIRE APPARATUS ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 26 FEET, EXCLUSIVE OF SHOULDERS, IN THE IMMEDIATE VICINITY OF THE BUILDING OF PORTION THEREOF.
6. AT LEAST ONE REQUIRED ACCESS ROUTE MEETING THE AERIAL ACCESS ROADS REQUIREMENTS SHALL BE LOCATED WITHIN A MINIMUM OF 15 FEET AND A MAXIMUM OF 30 FEET FROM THE BUILDING, AND SHALL BE POSITIONED PARALLEL TO ONE ENTIRE SIDE OF THE BUILDING.
7. IF GATES ARE INSTALLED ACROSS EVA ROADS, GATES SHALL BE OPERABLE BY THE USE OF A KNOX KEY.
8. A "KNOX BOX" SHALL BE INSTALLED WITH KEYS FOR ALL COMMON AREAS TO BE INSTALLED AT ALL PRIMARY ACCESS POINT UTILIZED BY THE FIRE DEPARTMENT
9. FIRE FDC'S SHALL BE IN LOCATIONS ACCEPTABLE FOR FIRE DEPARTMENT FOR EMERGENCY OPERATIONS.
10. FIRE FDC'S SHALL BE INTERCONNECTED WITH FIRE SPRINKLERS AND STANDPIPES.
11. STANDPIPES SHALL BE WET.
12. STANDPIPES SHALL EXTEND TO THE ROOF.
13. FIRE DEPARTMENT VALVE CONNECTIONS SHALL BE IN THE INTERMEDIATE LANDINGS OF STAIRWELLS.
14. INTERIOR HOSE PULLS SHALL NOT EXCEED 150 FEET TO ALL PORTIONS OF THE INTERIOR OF THE BUILDING.
15. SMOKE & HEAT VENTS SHALL BE INSTALLED ON ROOF ABOVE EACH STAIRWELL.
16. SMOKE & HEAT VENTS SHALL BE EQUIPPED WITH FUSIBLE LINK.
17. SMOKE & HEAT VENTS SHALL BE EQUIPPED WITH MANUAL RELEASE FOR EMERGENCY OPERATIONS.
18. CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF AND ADJACENT TO SLEEPING AREAS WHERE FUEL-BURNING APPLIANCES ARE INSTALLED.
19. CARBON MONOXIDE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 720.
20. CARBON MONOXIDE ALARMS SHALL BE120 V POWERED WITH BATTERY BACKUP AND BE INTERCONNECTED WITH THE SMOKE DETECTORS.
21. ALL ELECTRICAL BREAKERS SHALL BE LABELED.
22. ELECTRICAL EQUIPMENT ROOMS SHALL BE IDENTIFIED ON DOOR LEADING TO ROOM.
23. APPROVED NUMBERS OR ADDRESS SHALL BE PROVIDED IN SUCH A POSITION TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET FRONTING THE PROPERTY.
24. ADDRESS SHALL BE EITHER INTERNALLY OR EXTERNALLY ILLUMINATED.
25. EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED.
26. EMERGENCY ELECTRICAL SYSTEM TO AUTOMATICALLY ILLUMINATE MEANS OF EGRESS.
27. EMERGENCY EGRESS SIGNS SHALL BE POSTED INDICATING EXIT PATH.
28. BRAILLE OR TACTILE EXIT ROUTE AND EXIT SIGNS SHALL BE POSTED FOR ADA COMPLIANCE.
29. EMERGENCY EGRESS PLANS SHALL BE DEVELOPED.
30. FLOOR LEVEL SIGNS SHALL BE REQUIRED ON EACH FLOOR
31. RADIO FREQUENCY SIGNAL STRENGTH ANALYSIS SHALL BE CONDUCTED THROUGHOUT THE BUILDING.
32. IF RADIO SIGNAL STRENGTH DEFICIENCIES ARE IDENTIFIED, SIGNAL BOOSTERS SHALL BE INSTALLED TO ACHIEVE ADEQUATE SIGNAL STRENGTH AND BOOSTERS SHALL BE MAINTAINED.



NORTH

1"=30'-0" 0 15' 30' 60' 90'

CONCEPTUAL FIRE PLAN - SITE PLAN

A2.1

EL CERRITO APARTMENTS

EL CERRITO, CA

AMG & ASSOCIATES

DATE: 07-03-2023
JOB NO.: 2017-694

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LEGEND

- FIRE AREA SEPARATION WALL
- GE — GURNEY-SIZE ELEVATOR
- BUILDING FOOTPRINT
- STAIRS PROVIDING ROOF ACCESS

NORTH

1"=30'-0" 0 15' 30' 60' 90'

CONCEPTUAL FIRE PLAN -TYPICAL UPPER FLOOR

A2.2

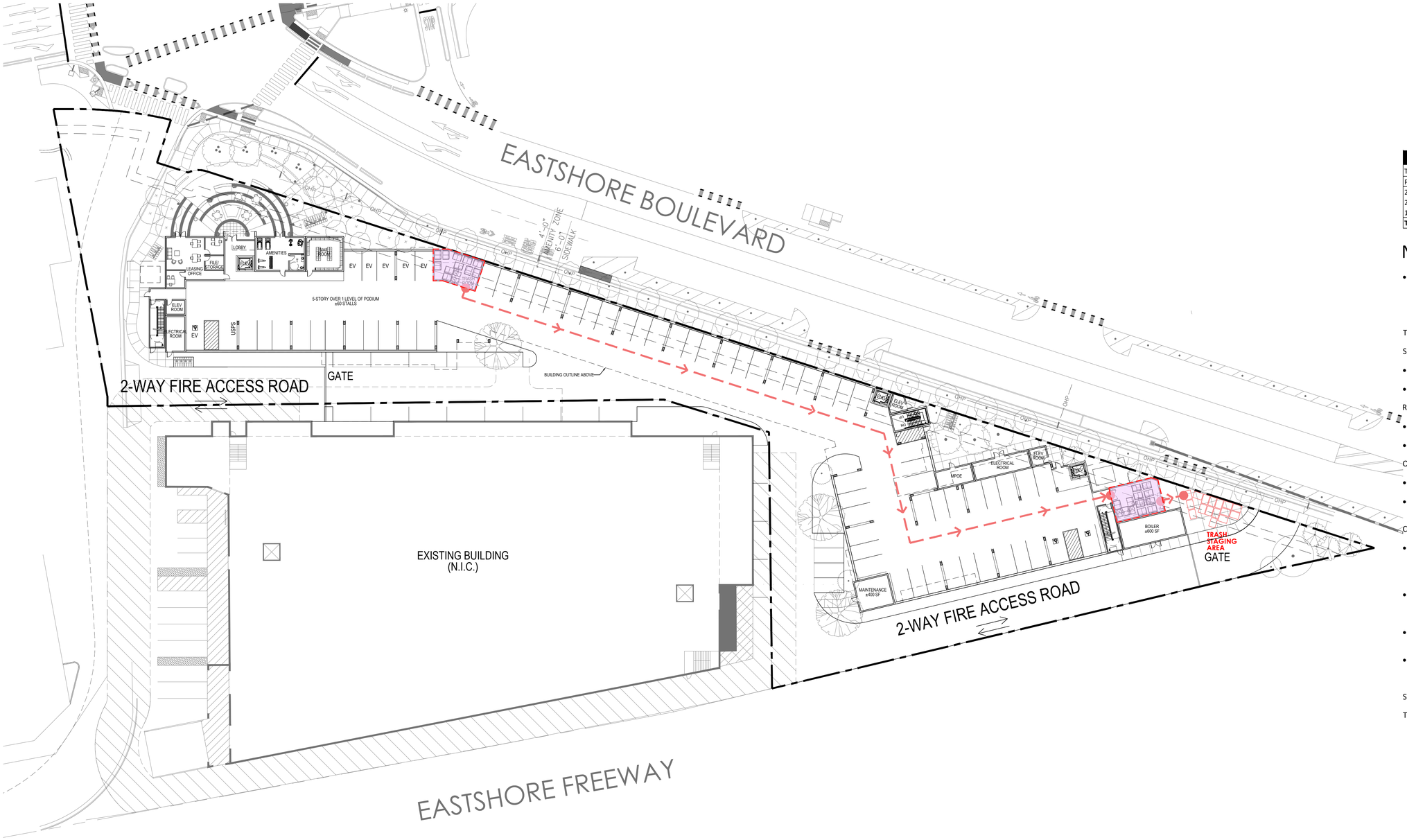
EL CERRITO APARTMENTS

EL CERRITO, CA

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TRASH EXHIBIT LEGEND

- STINGER TRUCK ROUTE
- HAULER TRUCK ROUTE
- FIRE AREA SEPARATION WALL

RESIDENTIAL TRASH SUMMARY	
TOTAL UNITS SERVED	310
PICK UP FREQUENCY	5-DAY PER WEEK
2-CY containers for trash	6
2-CY containers for recycling	8
1-CY containers for green waste	2
TOTAL	**16**

NOTES:

- A STINGER TRUCK WILL ENTER THE PARKING STRUCTURE FROM THE MAIN ENTRY. NEXT, THE STINGER WILL MOVE TRASH/RECYCLING BINS FROM TRASH ROOMS ONTO THE TRASH STAGING AREA. A HAULER TRUCK DRIVING WILL PULL INTO SERVICE LANE TOWARD THE MOVE-IN AREA BEGIN OPERATIONS. ONCE COMPLETE, THE HAULER TRUCK WILL REVERSE THEN EXIT.

TRASH ROOMS

SOLID WASTE

- A MIN. TOTAL OF TWO(2) 2-CU.YARD TRASH BINS ARE ANTICIPATED TO BE ON SITE AT ALL TIMES FOR 5-DAY PER WEEK PICK-UP SCHEDULE.
- EACH TRASH ROOM WILL HAVE ONE(1) 2-CU.YARD TRASH BIN.

RECYCLABLES

- A MIN. TOTAL OF TWO(2) 2-CU.YARD RECYCLE BINS ARE ANTICIPATED TO BE ON SITE AT ALL TIMES FOR 5-DAY PER WEEK PICK-UP SCHEDULE.
- EACH TRASH ROOM WILL HAVE ONE (1) 2-CU.YARD RECYCLE BINS.

ORGANICS

- A MIN. TOTAL OF TWO (2) 1-CU.YARD ORGANIC BINS ARE ANTICIPATED TO BE ON SITE AT ALL TIMES FOR 5-DAY PER WEEK PICK-UP SCHEDULE.
- EACH TRASH ROOM WILL HAVE ONE(1) 1-CU.YARD ORGANIC BIN.

COLLECTION

- WASTE WILL BE COLLECTED VIA CHUTES (ONE FOR RECYCLABLES AND ONE FOR SOLID WASTE) LOCATED WITHIN TWO SEPARATE ENCLOSURES IN THE PARKING STRUCTURE ON EACH LEVEL. THESE CHUTES END AT THE TWO TRASH TERMINATION ROOMS ON THE GROUND LEVEL WHERE WASTE IS SCHEDULED FOR TWICE A WEEK PICK-UP.
- THE TRASH CHUTES WILL CONTAIN A MECHANISM THAT WILL ALLOW COMPLETE SHUT-OFF IN ORDER TO REMOVE/REPLACE THE BINS AS THEY REQUIRE EMPTYING AND LIMIT ACCESS TO ALL OTHER FLOORS WHEN ANY ONE CHUTE DOOR IS OPENED.
- A VEHICLE APPROPRIATE FOR TOWING TRASH BINS WILL BE PART OF CONTRACTING WITH THE SERVICE PROVIDER.

MAINTENANCE

- A PORTER WILL BE REQUIRED TO MONITOR THE TRASH LEVELS DAILY. THE MAINTENANCE OF THE TRASH ROOMS WILL BE MONITORED AND MANAGED BY PROPERTY MANAGEMENT.

STAGING AREA

THE STAGING AREA IS WHERE THE COLLECTION OF ALL BINS WILL TAKE PLACE AND WHERE THE HAULER (TRASH TRUCK) WILL PICK-UP THE BINS. IT IS LOCATED ALONG EASTSHORE BOULEVARD.

NORTH

0 15' 30' 60' 90'
1"=30'-0"

CONCEPTUAL TRASH MANAGEMENT PLAN

A2.3

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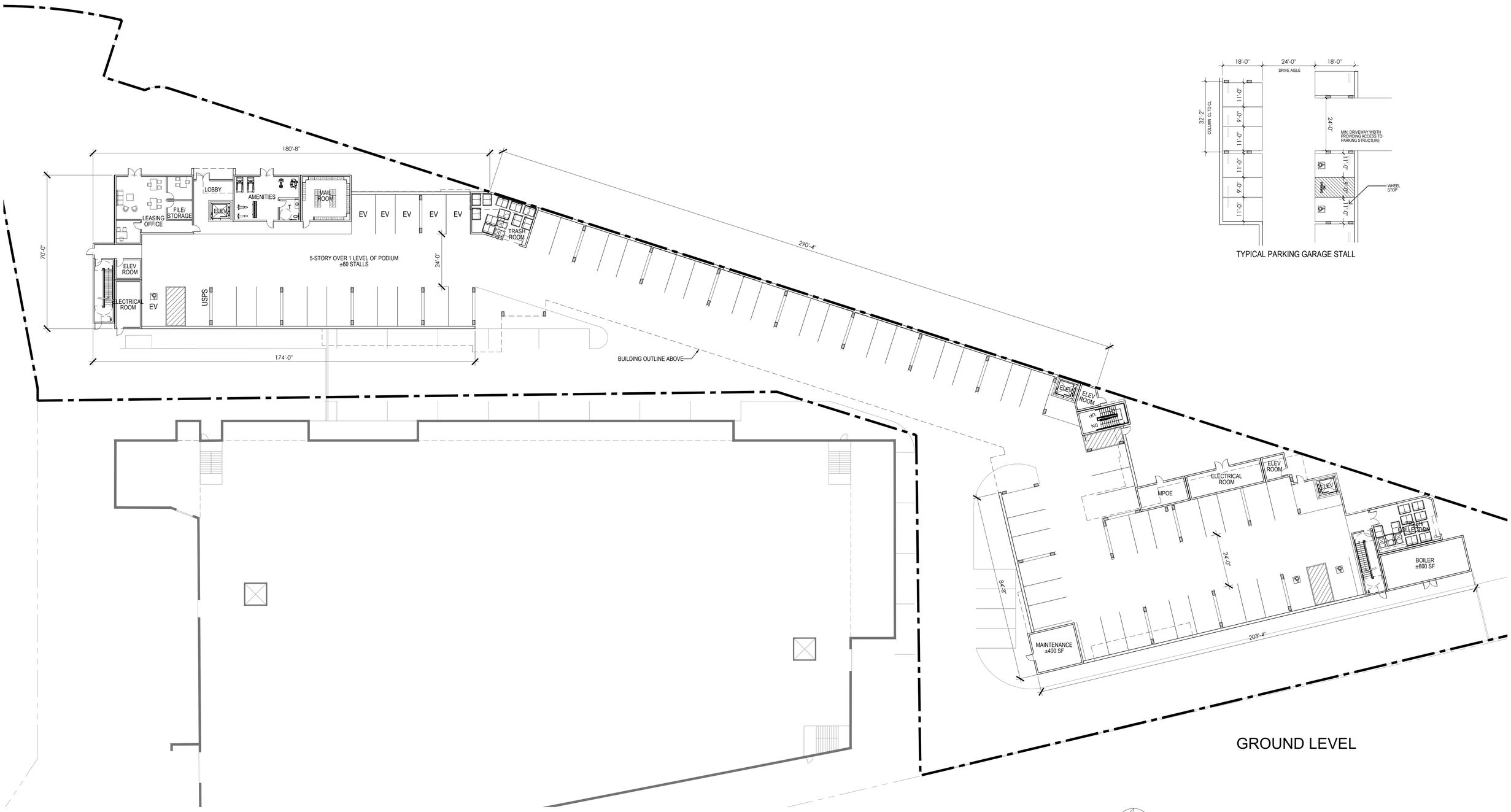
AMG & ASSOCIATES

EL CERRITO, CA

DATE: 07-03-2023
JOB NO.: 2017-694

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.



TYPICAL PARKING GARAGE STALL

GROUND LEVEL

NORTH

1"=20'-0" 0 10' 20' 40' 60'

CONCEPTUAL BUILDING COMPOSITE PLANS

A3.0

EL CERRITO APARTMENTS

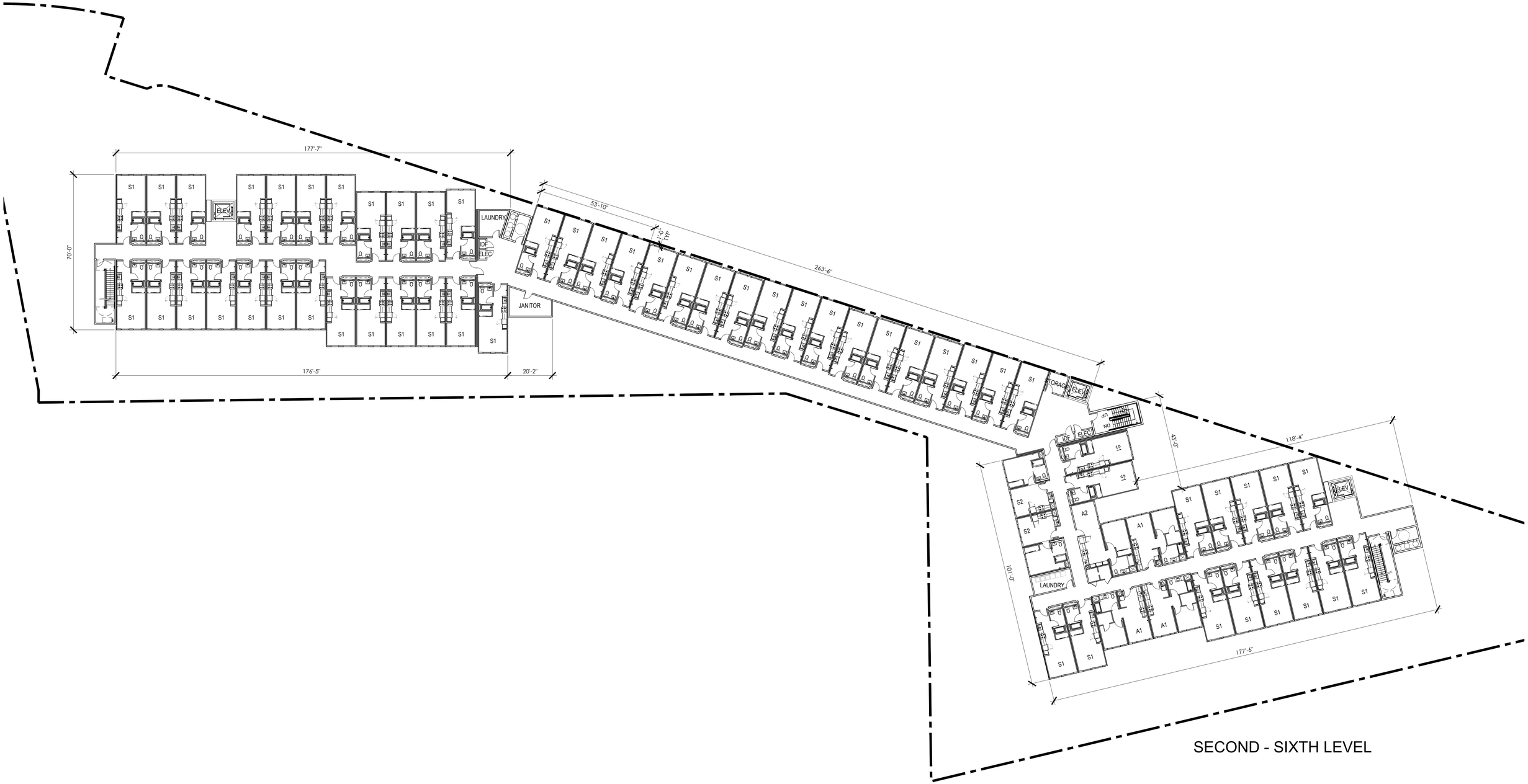
EL CERRITO, CA

AMG & ASSOCIATES

DATE: 07-05-2023
JOB NO.: 2017-694

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(714) 639-9860

Architecture.
Design.
Relationships.



SECOND - SIXTH LEVEL

NORTH

1"=20'-0" 0 10' 20' 40' 60'

CONCEPTUAL BUILDING COMPOSITE PLANS

A3.1

EL CERRITO APARTMENTS

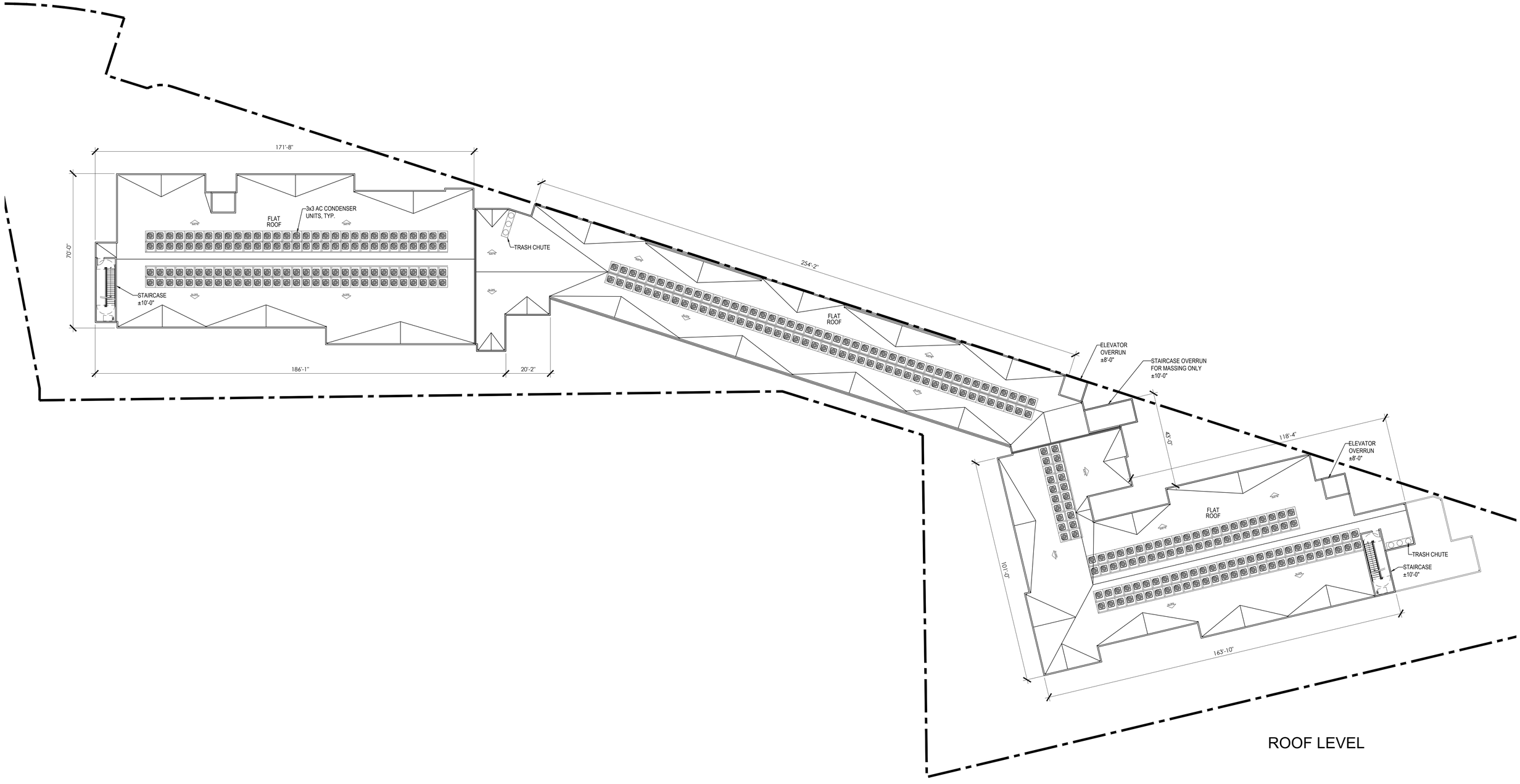
EL CERRITO, CA

AMG & ASSOCIATES

DATE: 07-05-2023
JOB NO.: 2017-694

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144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.



ROOF LEVEL

NORTH

1"=20'-0" 0 10' 20' 40' 60'

CONCEPTUAL BUILDING COMPOSITE PLANS

A3.2

EL CERRITO APARTMENTS

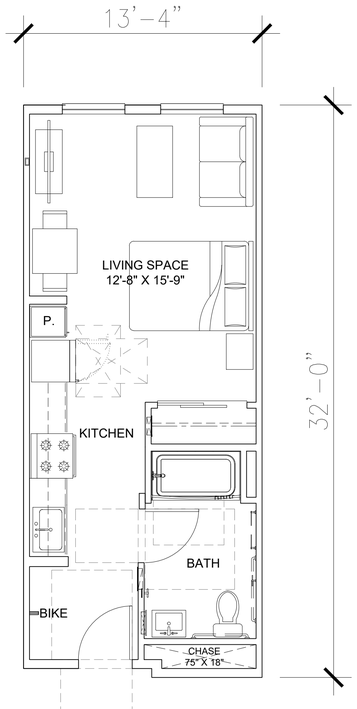
EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

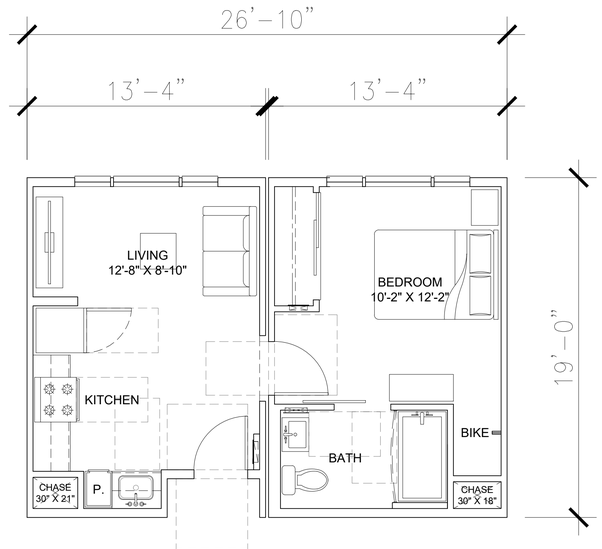
AMG & ASSOCIATES

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

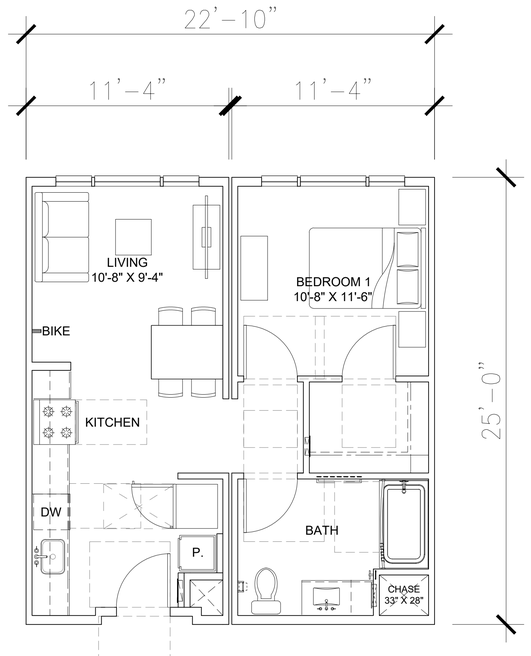
Architecture.
Design.
Relationships.



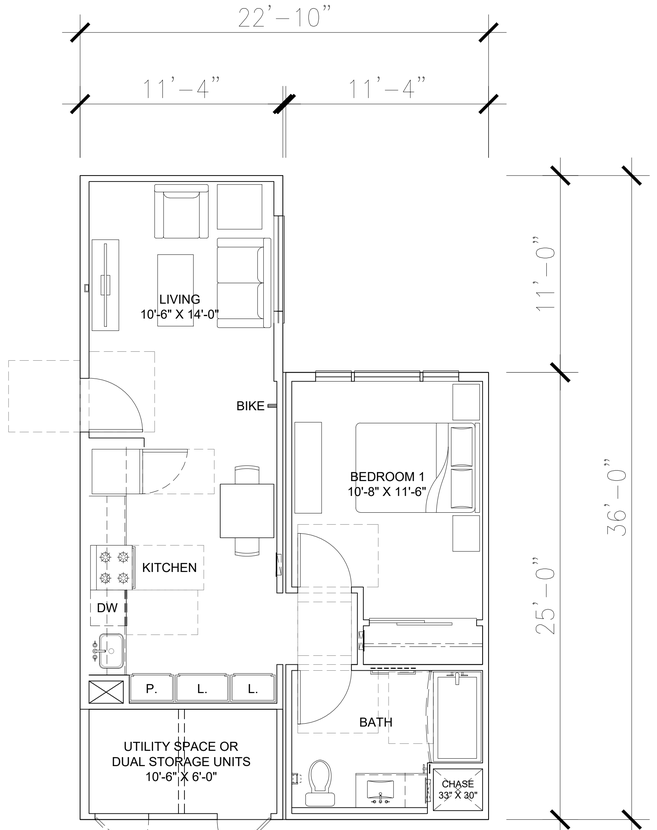
UNIT S1
STUDIO - 1 BATH
UNIT AREA: 411 SQ. FT.



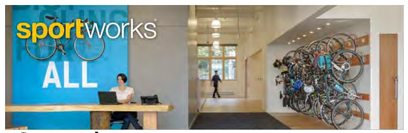
UNIT S2
STUDIO - 1 BATH
UNIT AREA: 483 SQ. FT.



UNIT A1
1 BED - 1 BATH
UNIT AREA: 554 SQ. FT.



UNIT A2
1 BED - 1 BATH
UNIT AREA: 612 SQ. FT.



Crossroads

Capacity: 1 **Warranty: 1 Year**

- Sleek and minimalistic design
- Space efficient
- Optional integrated cable or steel chain that are both U-Lock compatible
- Stainless steel construction

Product Specifications

Materials:
- Stainless Steel
  - Hook Tubes: 1.25" tubing
  - Mounting Brackets: 0.25" plate
- Santoprene® Rubber Bumper
- Optional Locking Cable
- Optional Locking Chain

Finishing Options:
- Stainless Steel Bead Blast Satin

Mounting Options:
- Surface Mount

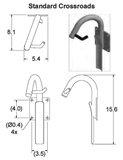
Hardware Options:
- ☐ Concrete Wedge Anchors (standard)
  - ☐ + Tamper Resistant Nuts (recommended)

*For other hardware options contact our sales and support staff.

Options:
- ☐ Without Cable
- ☐ With Cable (compatible with large diameter U Locks)
- ☐ With Chain (compatible with large diameter U locks)

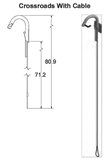
Revised:07/01/2021

Standard Crossroads



Weight: 2.5 LB

Crossroads With Cable



Weight: 3 LB

Crossroads With Chain



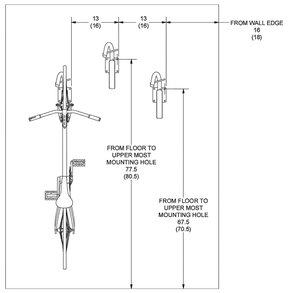
Weight: 8.5 LB

* All dimensions are in inches

www.sportworks.com

sportworks

Spacing and Setbacks



*Many local governments will specify minimum spacing and setback requirements

**All dimensional drawings are in inches. Minimum dimensions are placed above the recommended dimensions. Recommended dimensions are in ().

Contractor:

Job:

Notes:

Contact Information:
888-661-0555
sales@sportworks.com
www.sportworks.com
15540 Woodinville Redmond Rd NE, Bldg A-200, Woodinville, WA 98072

MADE IN WASHINGTON

Declare.

1/4"=1'-0" 0 2' 4' 8' 12'

CONCEPTUAL UNIT PLANS

A4.0

EL CERRITO APARTMENTS

EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

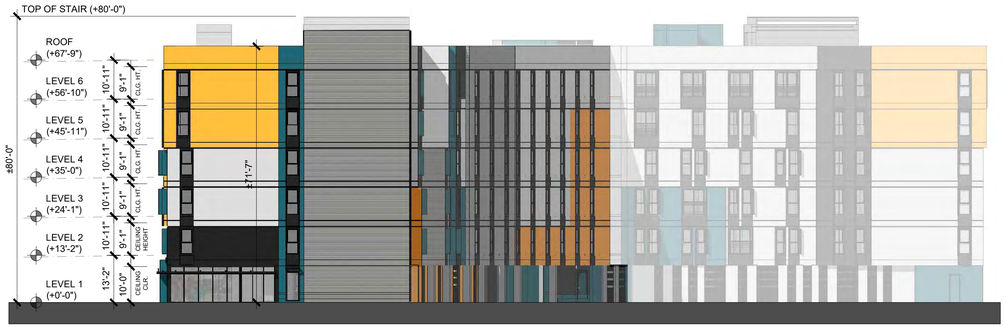
AMG & ASSOCIATES

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.



EAST ELEVATION 2



NORTH ELEVATION 1



A. TYPE 1 :
VINYL WINDOWS *
FLUSH MOUNTED
SINGLE HUNG WINDOW
WINDOW TRIM
BLACK OR EQUAL

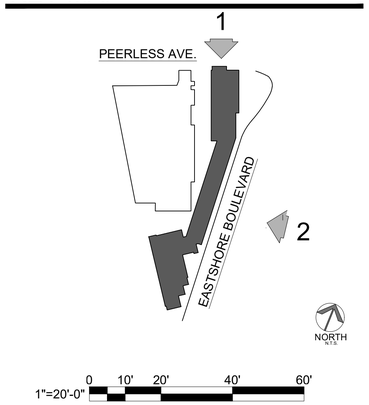


B. TYPE 2 :
VINYL WINDOWS *
FLUSH MOUNTED
WINDOW PAIR
ONE FIXED WINDOW &
ONE SINGLE HUNG
WINDOW
WINDOW TRIM
BLACK OR EQUAL



C. TYPE 3 :
VINYL WINDOWS *
FLUSH MOUNTED
SLIDER WINDOW
WINDOW FIN/TRIM
BLACK OR EQUAL

KEY MAP



CONCEPTUAL BLDG. ELEVATIONS

A5.0

EL CERRITO APARTMENTS

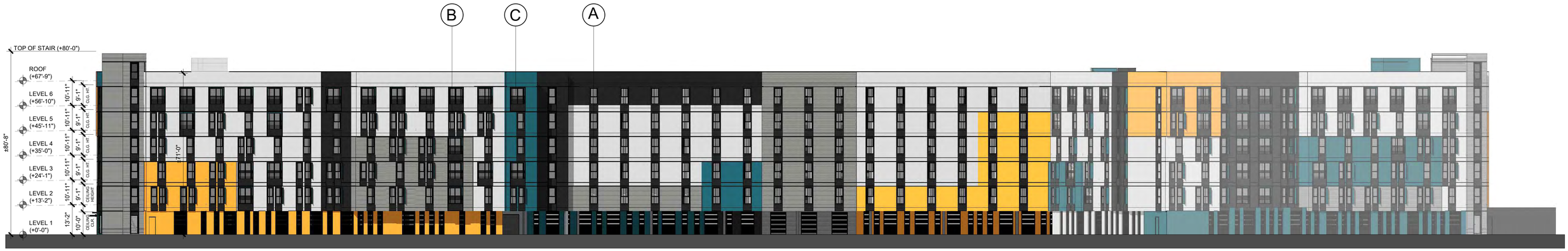
EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

AMG & ASSOCIATES

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144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.



WEST ELEVATION 4



SOUTH ELEVATION 3



A. TYPE 1 :
VINYL WINDOWS *
FLUSH MOUNTED
SINGLE HUNG WINDOW
WINDOW TRIM
BLACK OR EQUAL

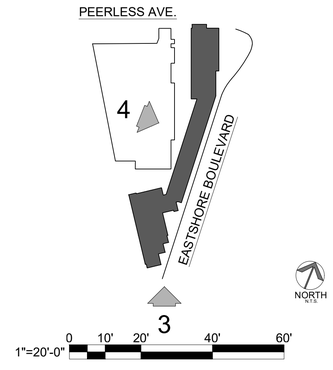


B. TYPE 2 :
VINYL WINDOWS *
FLUSH MOUNTED
WINDOW PAIR
ONE FIXED WINDOW &
ONE SINGLE HUNG
WINDOW
WINDOW TRIM
BLACK OR EQUAL



C. TYPE 3 :
VINYL WINDOWS *
FLUSH MOUNTED
SLIDER WINDOW
WINDOW FIN/TRIM
BLACK OR EQUAL

KEY MAP



CONCEPTUAL BLDG. ELEVATIONS

A5.1

EL CERRITO APARTMENTS

EL CERRITO, CA

AMG & ASSOCIATES

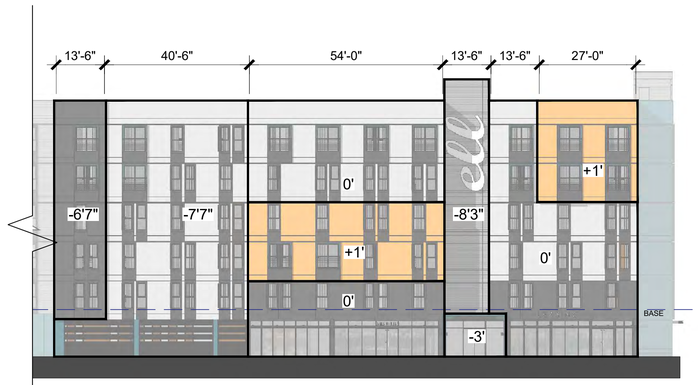
DATE: 07-05-2023
JOB NO.: 2017-694

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

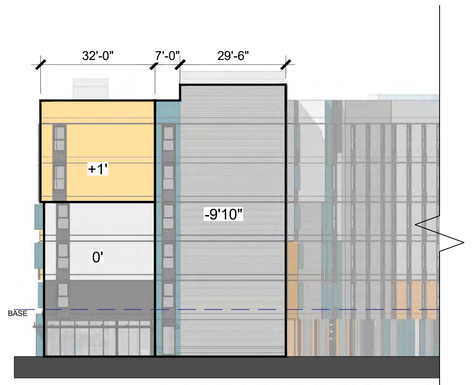
Architecture.
Design.
Relationships.



EAST ELEVATION 3

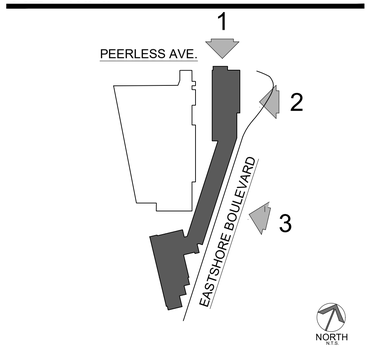


EAST ELEVATION 2



NORTH ELEVATION 1

KEY MAP



1"=20'-0" 0 10' 20' 40' 60'

ELEVATION DIAGRAMS A5.2

EL CERRITO APARTMENTS

EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

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Architecture. Design. Relationships.



VIEW 1



VIEW 2

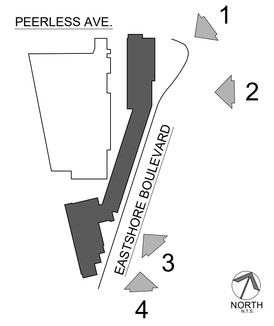


VIEW 3



VIEW 4

KEY MAP



CONCEPTUAL 3D VIEWS

A6.0

EL CERRITO APARTMENTS

AMG & ASSOCIATES

EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

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Architecture.
Design.
Relationships.



VIEW 5



VIEW 6

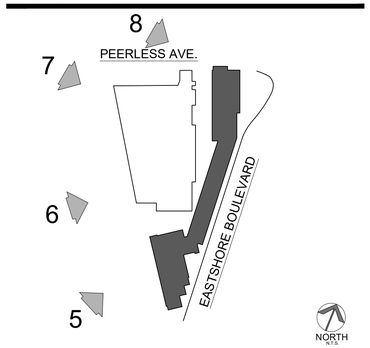


VIEW 7



VIEW 8

KEY MAP



CONCEPTUAL 3D VIEWS

A6.1

EL CERRITO APARTMENTS

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DATE: 07-05-2023
JOB NO.: 2017-694

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(714) 639-9860

Architecture.
Design.
Relationships.

TRANSPARENCY LEGEND

WINDOW GLAZING AREA

WALL SURFACE AREA



WEST ELEVATION 4

TRANSPARENCY CALCULATIONS

UPPER LEVELS
GLAZING AREA: 1,490 SQ. FT.
WALL AREA: 8,163 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 18% OF GLAZING AREA

PODIUM/FIRST LEVEL
GLAZING AREA: 785 SQ. FT.
WALL AREA: 2,230 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 35% OF GLAZING AREA

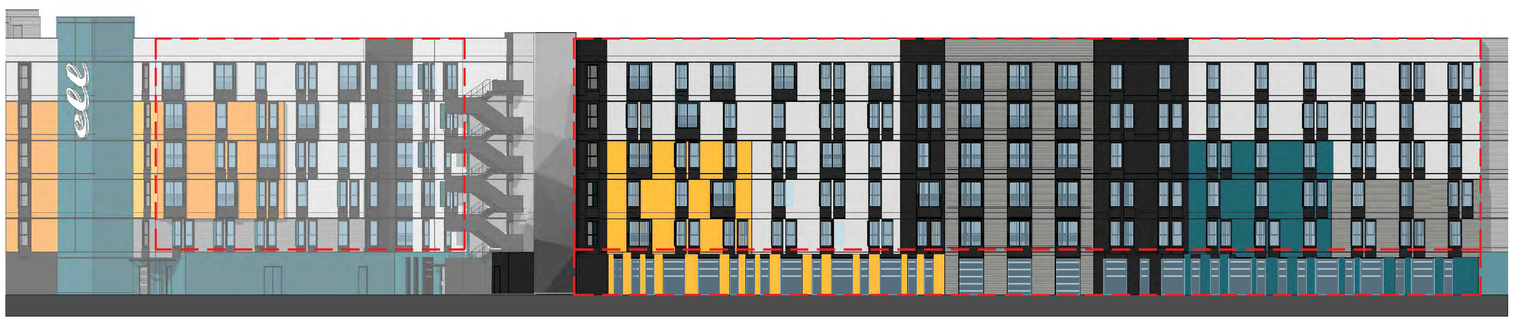


SOUTH ELEVATION 3

TRANSPARENCY CALCULATIONS

UPPER LEVELS
GLAZING AREA: 175 SQ. FT.
WALL AREA: 4,375 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 4% OF GLAZING AREA

PODIUM/FIRST LEVEL
GLAZING AREA: 45 SQ. FT.
WALL AREA: 860 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 5% OF GLAZING AREA



EAST ELEVATION 2

TRANSPARENCY CALCULATIONS

UPPER LEVELS
GLAZING AREA: 3,200 SQ. FT.
WALL AREA: 20,030 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 15% OF GLAZING AREA

PODIUM/FIRST LEVEL
GLAZING AREA: 1,360 SQ. FT.
WALL AREA: 3,200 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 43% OF GLAZING AREA



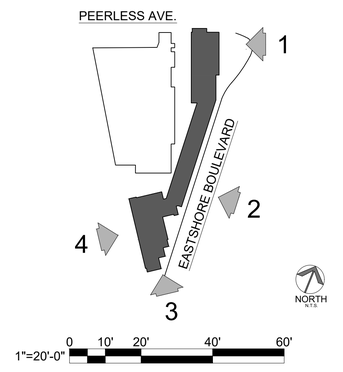
EAST ELEVATION 1

TRANSPARENCY CALCULATIONS

UPPER LEVELS
GLAZING AREA: 1,425 SQ. FT.
WALL AREA: 9,685 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 15% OF GLAZING AREA

PODIUM/FIRST LEVEL
GLAZING AREA: 1550 SQ. FT.
WALL AREA: 2065 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 75% OF GLAZING AREA

KEY MAP



CONCEPTUAL PRIVACY AND WINDOW STUDY

A6.2

EL CERRITO APARTMENTS

EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

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Architecture.
Design.
Relationships.

TRANSPARENCY LEGEND

WINDOW GLAZING AREA

WALL SURFACE AREA

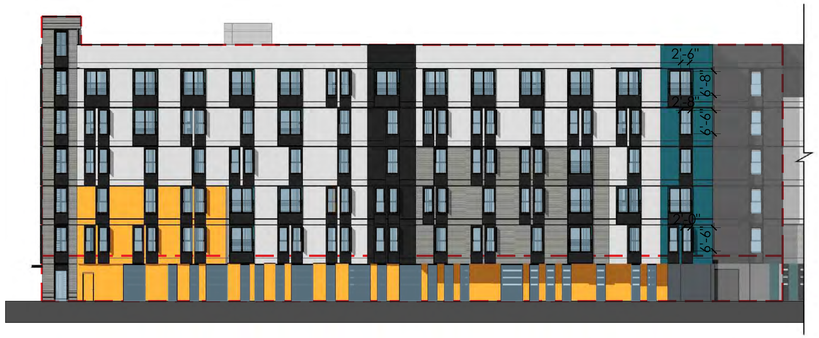


NORTH ELEVATION 4

TRANSPARENCY CALCULATIONS

UPPER LEVELS
GLAZING AREA: 175 SQ. FT.
WALL AREA: 4,145 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 4% OF GLAZING AREA

PODIUM/FIRST LEVEL
GLAZING AREA: 313 SQ. FT.
WALL AREA: 865 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 36% OF GLAZING AREA



WEST ELEVATION 3

TRANSPARENCY CALCULATIONS

UPPER LEVELS
GLAZING AREA: 1,890 SQ. FT.
WALL AREA: 12,195 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 15% OF GLAZING AREA

PODIUM/FIRST LEVEL
GLAZING AREA: 785 SQ. FT.
WALL AREA: 2,625 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 30% OF GLAZING AREA

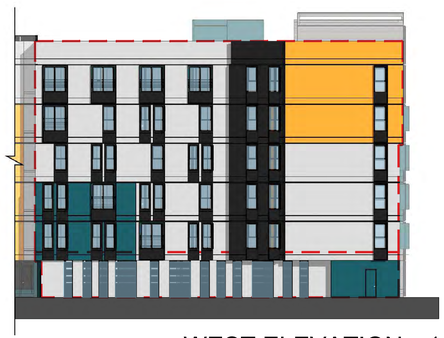


WEST ELEVATION 2

TRANSPARENCY CALCULATIONS

UPPER LEVELS
GLAZING AREA: 1,380 SQ. FT.
WALL AREA: 12,395 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 11% OF GLAZING AREA

PODIUM/FIRST LEVEL
GLAZING AREA: 2,230 SQ. FT.
WALL AREA: 2,675 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 83% OF OPEN AREA



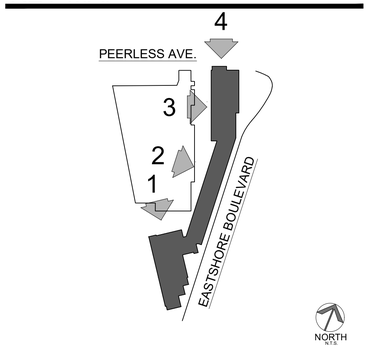
WEST ELEVATION 1

TRANSPARENCY CALCULATIONS

UPPER LEVELS
GLAZING AREA: 785 SQ. FT.
WALL AREA: 5,970 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 13% OF GLAZING AREA

PODIUM/FIRST LEVEL
GLAZING AREA: 405 SQ. FT.
WALL AREA: 1,300 SQ. FT.
THE NORTHEAST ELEVATION PROVIDES 31% OF GLAZING AREA

KEY MAP



CONCEPTUAL PRIVACY AND WINDOW STUDY

A6.3

EL CERRITO APARTMENTS

EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

AMG & ASSOCIATES

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Architecture.
Design.
Relationships.



A. SW 6259 SPATIAL WHITE

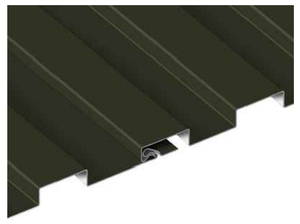
B. SW 6482 CAPE VERDE

C. SW 6895 LAUGHING ORANGE

D. SW 6990 CAVIAR



1. STUCCO
LIGHT SAND FINISH



2. ATAS
METAFOR STRUCTURAL
PANEL
DOVE GREY



3. METAL AWNING



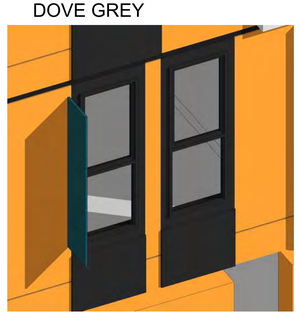
4. VINYL STOREFRONT
WINDOW SYSTEM
BLACK OR EQUAL



5. HORIZONTAL METAL RAILING
BLACK OR EQUAL



6. VINYL WINDOWS *
TYPE 1 :
SINGLE HUNG WINDOW
BLACK OR EQUAL



7. VINYL WINDOWS *
TYPE 2 :
ONE FIXED WINDOW AND
ONE SINGLE HUNG
WINDOW
BLACK OR EQUAL



8. VINYL WINDOWS *
TYPE 3 :
SLIDER WINDOW
BLACK OR EQUAL



9. VERTICAL SUN SHADE



10. WINDOW EDGE WITH
RAILING
BLACK OR EQUAL

WILLAMETTE WINDOWS & DOORS

Santiam Series | Single Hung, Horizontal Slider & Picture Windows

The Santiam slider series window design is one of the most comprehensive hung-slider window designs on the market. This versatile design is an excellent choice for upscale residential and light-commercial applications.

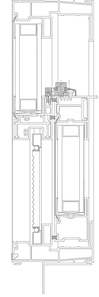
The vinyl is available in white, sandstone, and clay on which a myriad of color or wood-grain foils can be laminated.

Features:
Superior Hardware, we offer the best hardware on the market to ensure ease of use and ruggedness for commercial application for opening and securing the windows.

Multiple chambers on main profiles for increased strength, energy performance and efficient water drainage.

Reinforced Frame & Sash this allows for our product line to be designed into plans for taller buildings and commercial applications.

Welded sloped sill option for efficient water run-off and easy cleaning. High-definition finish for weather and stain resistance and ease of maintenance.





- Frame Depth: 3 1/2"
- Glazing Capacity: 1 1/8"
- AAMA Rating (NAFS): up to LC-PG40 Baseline
- Thermal Performance: 0.27 (based on simulation)
- STC: up to 36



* WINDOW DETAIL

CONCEPTUAL MATERIAL AND COLOR BOARD

A7.0

EL CERRITO APARTMENTS

EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

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Architecture.
Design.
Relationships.

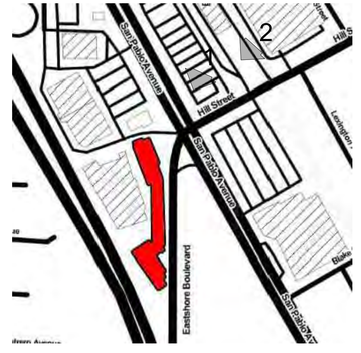


1. AERIAL VIEW LOOKING AT CORNER OF PEERLES AVE & EASTSHORE BLVD.



2. VIEW EASTSHORE BLVD. LOOKING SOUTH

KEYMAP



CONCEPTUAL VIEW STUDIES

A8.0

EL CERRITO APARTMENTS

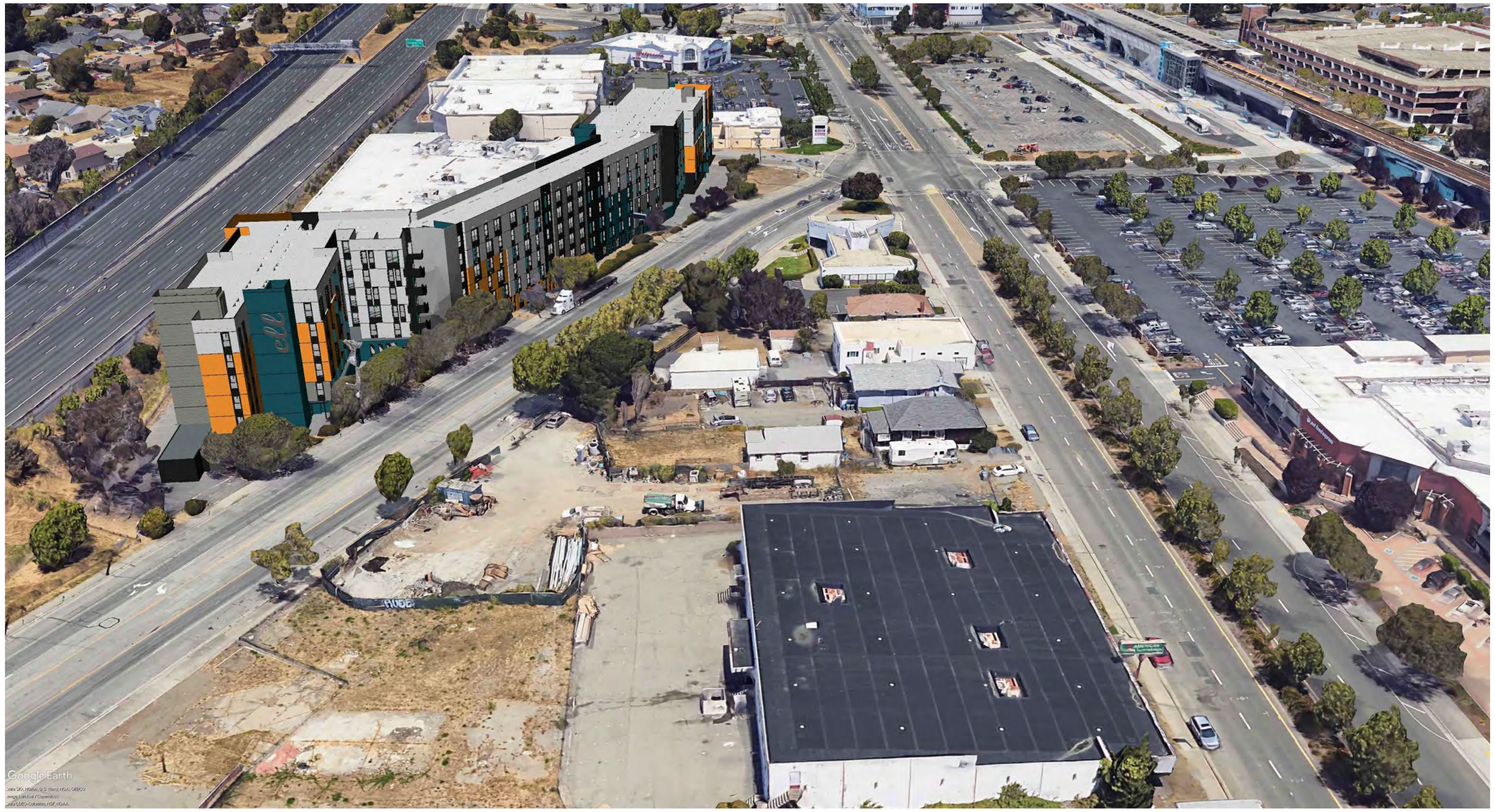
EL CERRITO, CA

DATE: 07-05-2023
JOB NO.: 2017-694

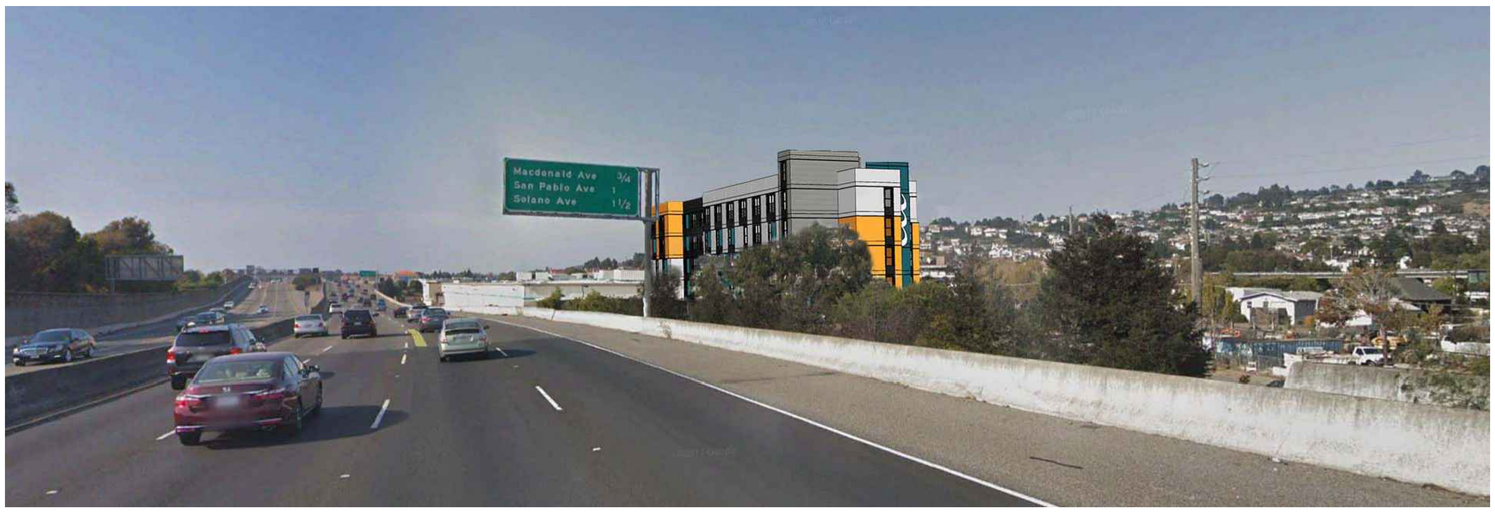
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Design.
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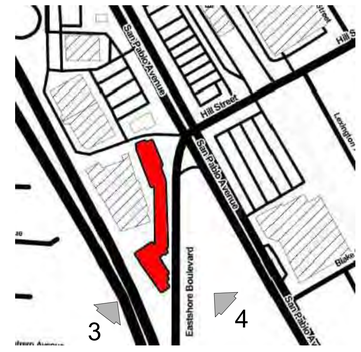


3. AERIAL VIEW LOOKING NORTH AT EASTSHORE BLVD.



4. VIEW ALONG 80 FREEWAY LOOKING NORTH

KEYMAP



CONCEPTUAL VIEW STUDIES

A8.1

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Relationships.



5. VIEW LOOKING NORTHWEST ALONG SAN PABLO AVE.

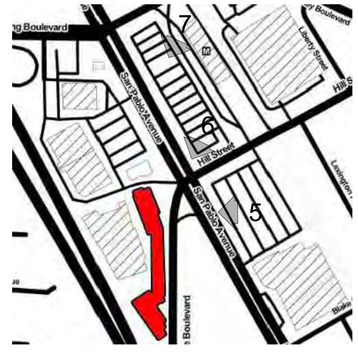


6. VIEW LOOKING SOUTHWEST ALONG SAN PABLO AVE.



7. VIEW FROM BART STATION LOOKING SOUTHWEST

KEYMAP



CONCEPTUAL VIEW STUDIES

A8.2

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8. VIEW LOOKING WEST FROM DONAL AVE. AND LAWRENCE ST.



9. VIEW LOOKING WEST FROM POTRERO AVE. AND DOUGLAS DR.

KEYMAP



CONCEPTUAL VIEW STUDIES

A8.3

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Architecture.
Design.
Relationships.

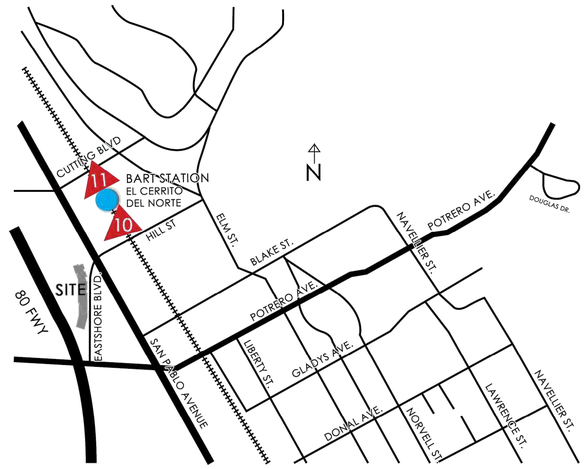


10. VIEW LOOKING SOUTH EAST FROM THE BART PLATFORM (LEFT SIDE).



11. VIEW LOOKING SOUTH EAST FROM THE BART PLATFORM (RIGHT SIDE).

KEYMAP



CONCEPTUAL VIEW STUDIES

A8.4

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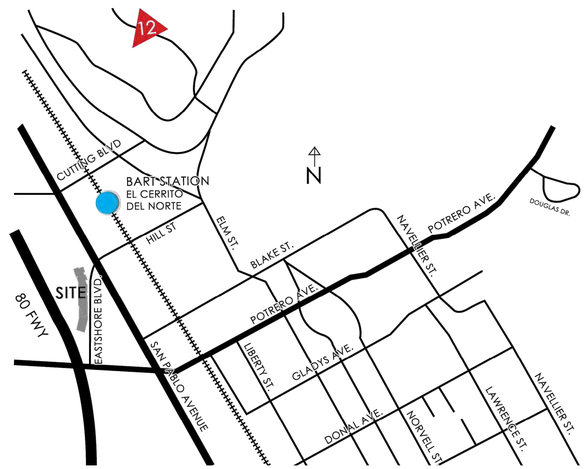
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Architecture.
Design.
Relationships.



12. VIEW LOOKING SOUTH EAST FROM TAPSCOTT AVENUE.

KEYMAP



CONCEPTUAL VIEW STUDIES

A8.5

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DATE: 07-05-2023
JOB NO.: 2017-694

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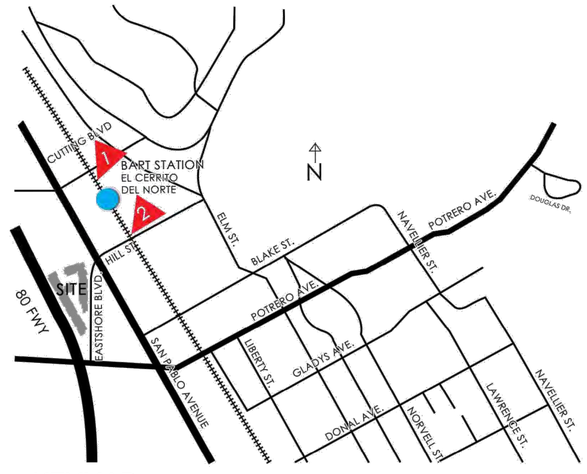
Architecture.
Design.
Relationships.



1. VIEW TOWARDS SITE FROM NORTH SIDE OF BART STATION



2. VIEW TOWARDS SITE FROM SOUTH SIDE OF BART STATION



KEYMAP

CONCEPTUAL BART STATION VIEW STUDIES

A8.6

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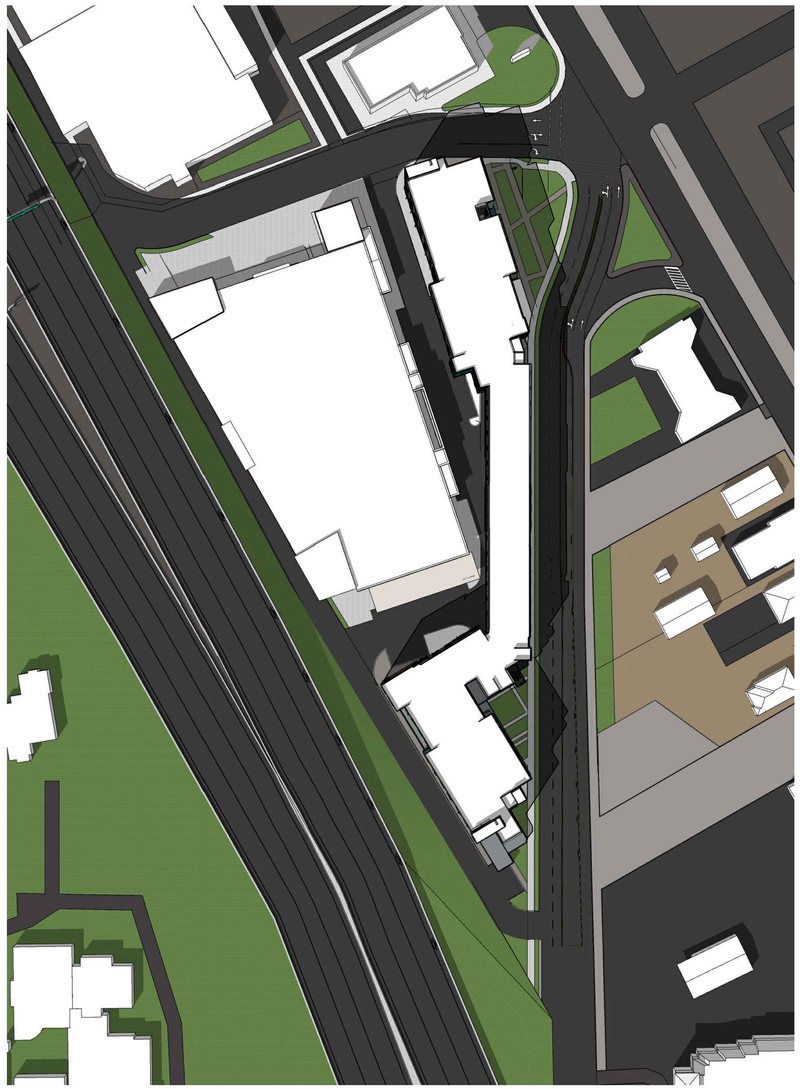
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Architecture.
Design.
Relationships.



SPRING EQUINOX - 10 AM



SPRING EQUINOX - 1:30 PM



SPRING EQUINOX - 4 PM

NORTH
N.T.S.

CONCEPTUAL SHADOW STUDIES

A9.0

EL CERRITO APARTMENTS

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Architecture.
Design.
Relationships.



SUMMER SOLSTICE - 10 AM



SUMMER SOLSTICE - 1:30 PM



SUMMER SOLSTICE - 4 PM

NORTH
N.T.S.

CONCEPTUAL SHADOW STUDIES

A9.1

EL CERRITO APARTMENTS

AMG & ASSOCIATES

EL CERRITO, CA

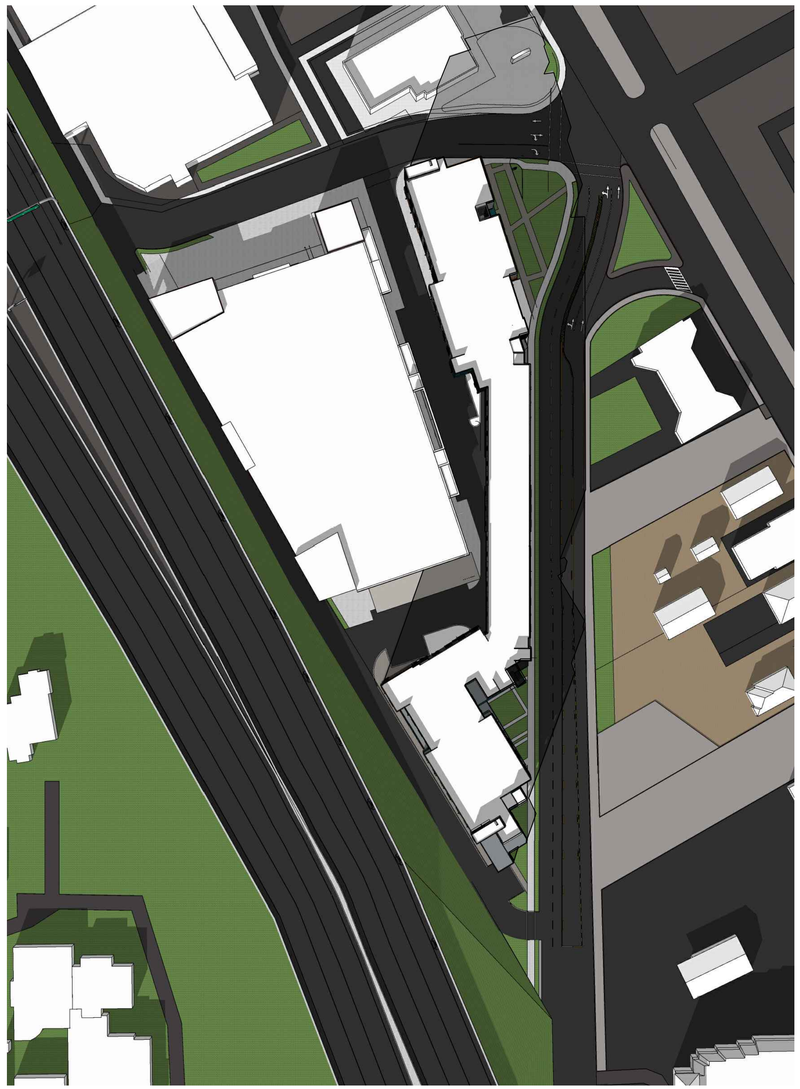
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Architecture.
Design.
Relationships.



WINTER SOLSTICE - 10 AM



WINTER SOLSTICE - 1:30 PM



WINTER SOLSTICE - 4 PM

NORTH
N.T.S.

CONCEPTUAL SHADOW STUDIES

A9.2

EL CERRITO APARTMENTS

EL CERRITO, CA

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Design.
Relationships.





SIGNAGE SIZES :
A. 1'-6" X 11'-2"
B. 1'-0" X 6'-0"

CONCEPTUAL SIGNAGE DETAILS

A10.0

EL CERRITO APARTMENTS

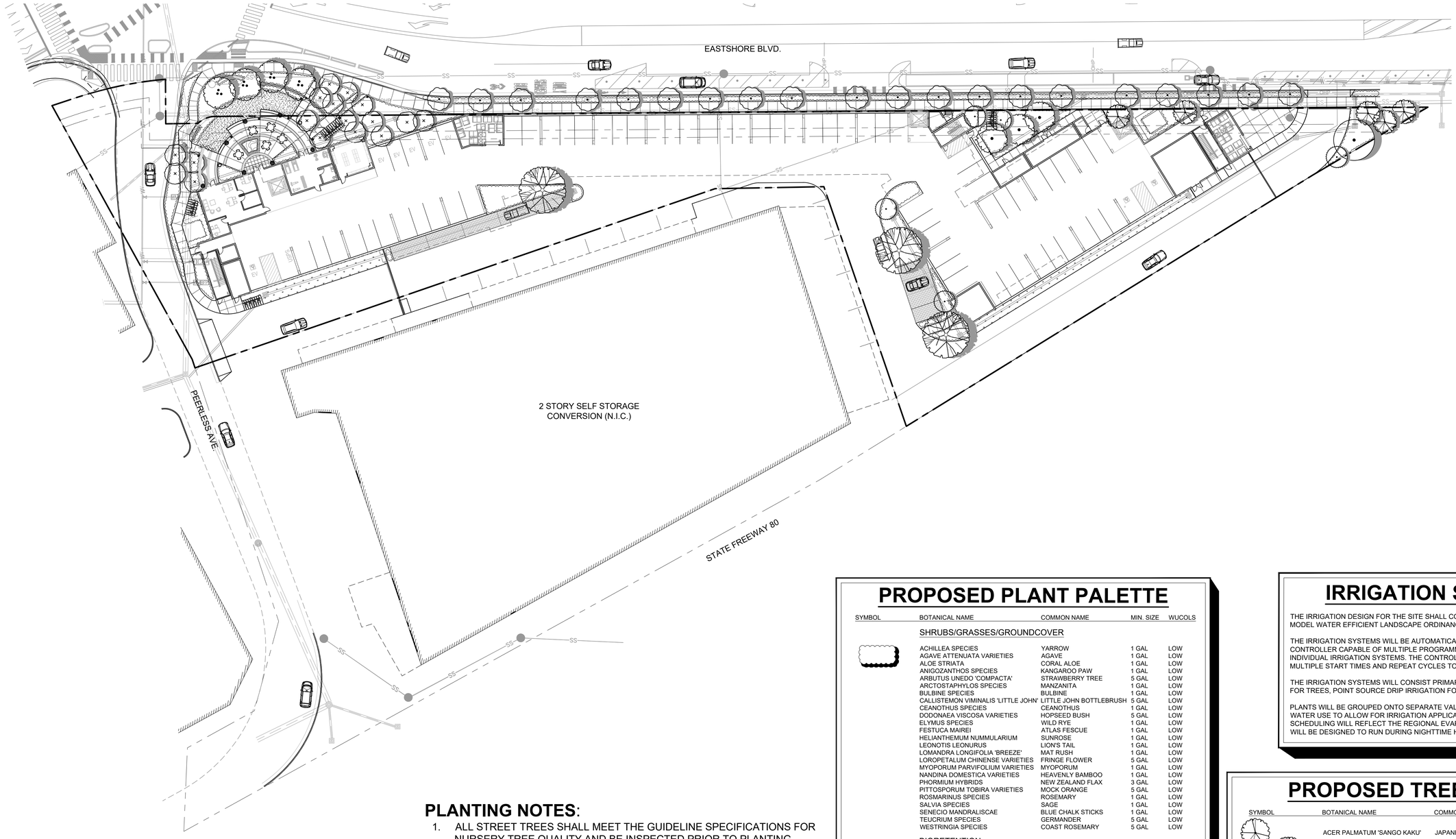
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Architecture.
Design.
Relationships.



PLANTING NOTES:

1. ALL STREET TREES SHALL MEET THE GUIDELINE SPECIFICATIONS FOR NURSERY TREE QUALITY AND BE INSPECTED PRIOR TO PLANTING.
2. ALL TREES SHALL BE A MINIMUM OF 8' FROM UTILITY BOXES, SANITARY SEWER & CURB CUTS.
3. ALL STREET TREES AND TREES PLANTED WITHIN TREE SETBACKS SHALL BE PLANTED WITH 18" DEEPROOT LINEAR ROOT BARRIERS OR APPROVED EQUAL.
4. ALL STREET TREES SHALL BE WATERED BY A DEDICATED IRRIGATION REMOTE CONTROL VALVE (RCV) WITH ONE BALL VALVE PER RCV.
5. PROPOSED STREET TREE LOCATIONS SHALL MAINTAIN A MINIMUM 10' CLEARANCE FROM THE BASE OF POWER LINE POLES.

NOTES:

1. SEE SHEET L-7 FOR PLANT PALETTE AND SITE AMENITIES IMAGERY.

PROPOSED PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WUCOLS
	SHRUBS/GRASSES/GROUNDCOVER			
	ACHILLEA SPECIES	YARROW	1 GAL	LOW
	AGAVE ATTENUATA VARIETIES	AGAVE	1 GAL	LOW
	ALOE STRIATA	CORAL ALOE	1 GAL	LOW
	ANIGOZANTHOS SPECIES	KANGAROO PAW	1 GAL	LOW
	ARBUTUS UNEDO 'COMPACTA'	STRAWBERRY TREE	5 GAL	LOW
	ARCTOSTAPHYLOS SPECIES	MANZANITA	1 GAL	LOW
	BULBINE SPECIES	BULBINE	1 GAL	LOW
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN BOTTLEBRUSH	5 GAL	LOW
	CEANOTHUS SPECIES	CEANOTHUS	1 GAL	LOW
	DODONAEA VISCOSA VARIETIES	HOPSEED BUSH	5 GAL	LOW
	ELYMUS SPECIES	WILD RYE	1 GAL	LOW
	FESTUCA MAIREI	ATLAS FESCUE	1 GAL	LOW
	HELIANTHEMUM NUMMULARIUM	SUNROSE	1 GAL	LOW
	LEONOTIS LEONURUS	LION'S TAIL	1 GAL	LOW
	LOMANDRA LONGIFOLIA 'BREEZE'	MAT RUSH	1 GAL	LOW
	LOROPETALUM CHINENSE VARIETIES	FRINGE FLOWER	5 GAL	LOW
	MYOPORUM PARVIFOLIUM VARIETIES	MYOPORUM	1 GAL	LOW
	NANDINA DOMESTICA VARIETIES	HEAVENLY BAMBOO	1 GAL	LOW
	PHORMIUM HYBRIDS	NEW ZEALAND FLAX	3 GAL	LOW
	PITTOSPORUM TOBIRA VARIETIES	MOCK ORANGE	5 GAL	LOW
	ROSMARINUS SPECIES	ROSEMARY	1 GAL	LOW
	SALVIA SPECIES	SAGE	1 GAL	LOW
	SENECIO MANDRALISCAE	BLUE CHALK STICKS	1 GAL	LOW
	TEUCRIUM SPECIES	GERMANDER	5 GAL	LOW
	WESTRINGIA SPECIES	COAST ROSEMARY	5 GAL	LOW
	BIORETENTION			
	ACHILLEA MILLEFOLIUM	YARROW	1 GAL	LOW
	ARCTOSTAPHYLOS D. 'HOWARD MCMINN'	MANZANITA	5 GAL	LOW
	CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL	LOW
	CEANOTHUS SPECIES	CALIFORNIA WILD LILAC	1 GAL	LOW
	CHONDROPETALUM TECTORUM	CAPE REED	1 GAL	LOW
	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL	LOW
	DIETES BICOLOR	FORTNIGHT LILY	1 GAL	LOW
	ELYMUS C. 'CANYON PRINCE'	GIANT WILD RYE	1 GAL	LOW
	EPILOBIUM CALIFORNICA	CALIFORNIA FUCHSIA	1 GAL	LOW
	JUNCUS PATENS	CALIFORNIA GREY RUSH	1 GAL	LOW
	MIMULUS AURANTIACUS	STICKY MONKEY FLOWER	1 GAL	V. LOW
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	LOW
	SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL	LOW
	TURF			
	DELTA BLUEGRASS 90/10 TALL FESCUE		SOD	MOD.

IRRIGATION STATEMENT

THE IRRIGATION DESIGN FOR THE SITE SHALL COMPLY WITH THE STATE OF CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (TITLE 23 - DIVISION 2-CHAPTER 2.7)

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 SYSTEMS WILL CONSIST PRIMARILY OF LOW VOLUME, LOW FLOW BUBBLERS FOR TREES, 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. THE ENTIRE SITE WILL BE DESIGNED TO RUN DURING NIGHTTIME HOURS WHEN IRRIGATION IS MOST EFFICIENT.

PROPOSED TREE PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WUCOLS	QTY
	ACER PALMATUM 'SANGO KAKU'	JAPANESE MAPLE	24" BOX	MOD	5
	ACER RUBRUM 'RED SUNSET'	RED MAPLE	24" BOX	MOD	3
	ARBUTUS 'MARINA'	STRAWBERRY TREE	24" BOX	LOW	4
	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX	MOD	3
	LAGERSTROEMIA 'NATCHEZ'	WHITE CRAPE MYRTLE	24" BOX	LOW	5
	LAGERSTROEMIA 'TUSCARORA'	RED CRAPE MYRTLE	24" BOX	LOW	17
	PRUNUS CERASIFERA	FLOWERING PLUM	24" BOX	LOW	20
	ULMUS P. 'EMERALD SUNSHINE'	EMERALD SUNSHINE ELM	24" BOX	LOW	1

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EL CERRITO APARTMENTS

El Cerrito, California

OVERALL SITE
LANDSCAPE PLAN
MARCH 17, 2023

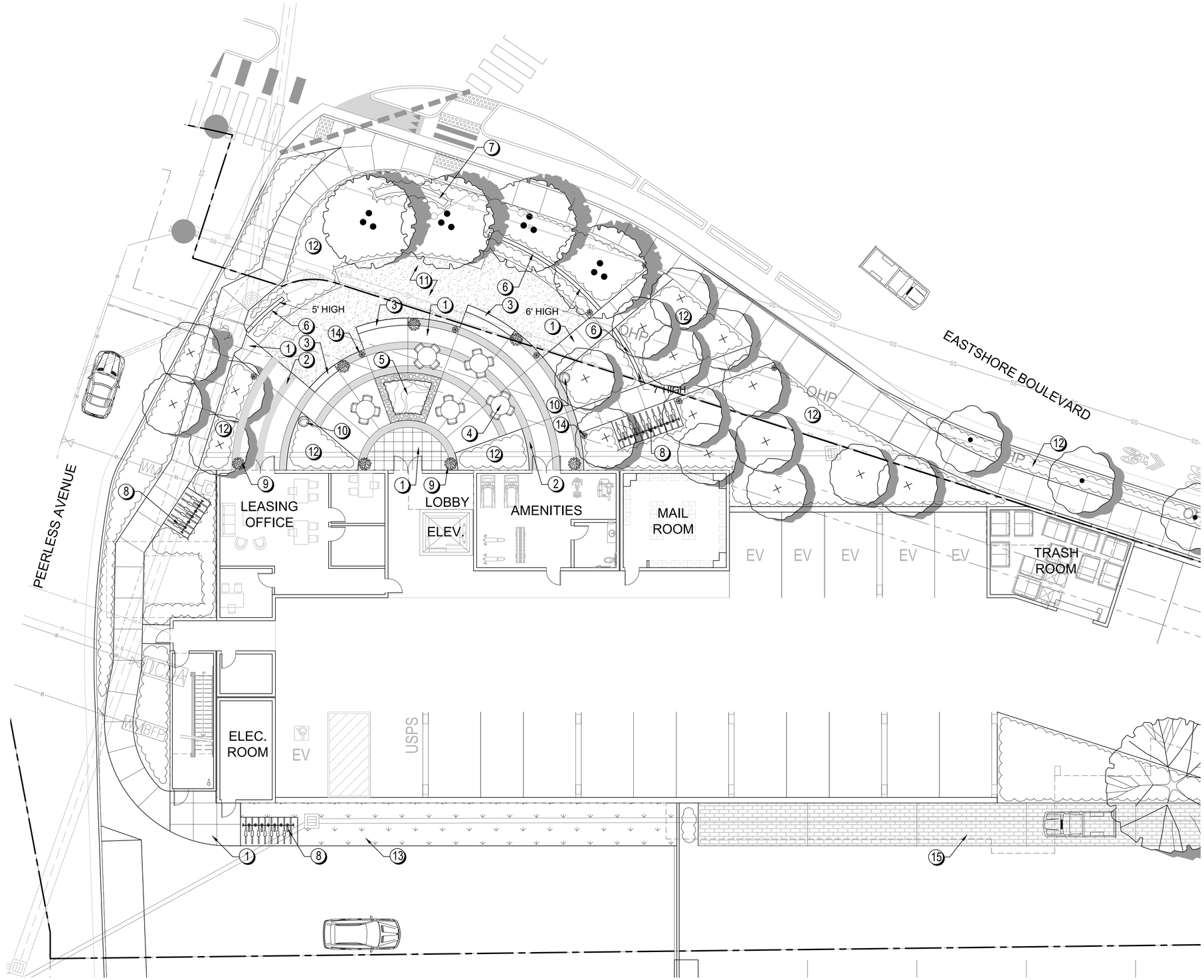
vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558

tel: 707.224.2299
www.vandertoolen.com

0' 15' 30' 60'
SCALE: 1" = 30'-0"
NORTH

L-1
Project No. 03218

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PROPOSED TREE PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WUCOLS	QTY
	ACER PALMATUM 'SANGO KAKU'	JAPANESE MAPLE	24" BOX	MOD	5
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	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX	MOD	3
	LAGERSTROEMIA 'NATCHEZ'	WHITE CRAPE MYRTLE	24" BOX	LOW	5
	LAGERSTROEMIA 'TUSCARORA'	RED CRAPE MYRTLE	24" BOX	LOW	17
	PRUNUS CERASIFERA	FLOWERING PLUM	24" BOX	LOW	20
	ULMUS P. 'EMERALD SUNSHINE'	EMERALD SUNSHINE ELM	24" BOX	LOW	1

PROPOSED PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WUCOLS
	SHRUBS/GRASSES/GROUNDCOVER			
	ACHILLEA SPECIES	YARROW	1 GAL	LOW
	AGAVE ATTENUATA VARIETIES	AGAVE	1 GAL	LOW
	ALOE STRIATA	CORAL ALOE	1 GAL	LOW
	ANIGOZANTHOS SPECIES	KANGAROO PAW	1 GAL	LOW
	ARBUTUS UNEDO 'COMPACTA'	STRAWBERRY TREE	5 GAL	LOW
	ARCTOSTAPHYLOS SPECIES	MANZANITA	1 GAL	LOW
	BULBINE SPECIES	BULBINE	1 GAL	LOW
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN BOTTLEBRUSH	5 GAL	LOW
	CEANOTHUS SPECIES	CEANOTHUS	1 GAL	LOW
	DODONAEA VISCOSA VARIETIES	HOPSEED BUSH	5 GAL	LOW
	ELYMUS SPECIES	WILD RYE	1 GAL	LOW
	FESTUCA MAIREI	ATLAS FESCUE	1 GAL	LOW
	HELIANTHEMUM NUMMULARIUM	SUNROSE	1 GAL	LOW
	LEONOTIS LEONURUS	LION'S TAIL	1 GAL	LOW
	LOMANDRA LONGIFOLIA 'BREEZE'	MAT RUSH	1 GAL	LOW
	LOROPETALUM CHINENSE VARIETIES	FRINGE FLOWER	5 GAL	LOW
	MYOPORUM PARVIFOLIUM VARIETIES	MYOPORUM	1 GAL	LOW
	NANDINA DOMESTICA VARIETIES	HEAVENLY BAMBOO	1 GAL	LOW
	PHORMIUM HYBRIDS	NEW ZEALAND FLAX	3 GAL	LOW
	PITTOSPORUM TOBIRA VARIETIES	MOCK ORANGE	5 GAL	LOW
	ROSMARINUS SPECIES	ROSEMARY	1 GAL	LOW
	SALVIA SPECIES	SAGE	1 GAL	LOW
	SENECIO MANDRALISCAE	BLUE CHALK STICKS	1 GAL	LOW
	TEUCRIUM SPECIES	GERMANDER	5 GAL	LOW
	WESTRINGIA SPECIES	COAST ROSEMARY	5 GAL	LOW
	BIORETENTION			
	ACHILLEA MILLEFOLIUM	YARROW	1 GAL	LOW
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	CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL	LOW
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	CHONDROPETALUM TECTORUM	CAPE REED	1 GAL	LOW
	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL	LOW
	DIETES BICOLOR	FORTNIGHT LILY	1 GAL	LOW
	ELYMUS C. 'CANYON PRINCE'	GIANT WILD RYE	1 GAL	LOW
	EPILOBIUM CALIFORNICA	CALIFORNIA FUCHSIA	1 GAL	LOW
	JUNCUS PATENS	CALIFORNIA GREY RUSH	1 GAL	LOW
	MIMULUS AURANTIACUS	STICKY MONKEY FLOWER	1 GAL	V. LOW
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	LOW
	SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL	LOW
	TURF			
	DELTA BLUEGRASS 90/10 TALL FESCUE		SOD	MOD.

CALLOUT LEGEND

1. NATURAL GRAY CONCRETE PAVING
2. ACID ETCH NATURAL GRAY CONCRETE PAVING
3. CONCRETE SEAT WALLS WITH ARM RESTS
4. PICNIC TABLES
5. WATER FEATURE
6. CURVED SPLIT FACE CMU BLOCK WALLS AT VARYING HEIGHTS
7. COMMUNITY SIGN WALL
8. BIKE RACKS (2 BIKES CAPACITY PER RACK, 32 TOTAL PARKING SPOTS)
9. POTS
10. TRASH RECEPTACLE
11. TURF WITH HEADER
12. SHRUBS & GROUNDCOVER
13. BIORETENTION
14. BOLLARD LIGHT
15. PERMEABLE PAVERS AT PARKING STALLS

NOTES:

1. SEE SHEET L-7 FOR PLANT PALETTE AND SITE AMENITIES IMAGERY.

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(818)380-2600

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El Cerrito, California

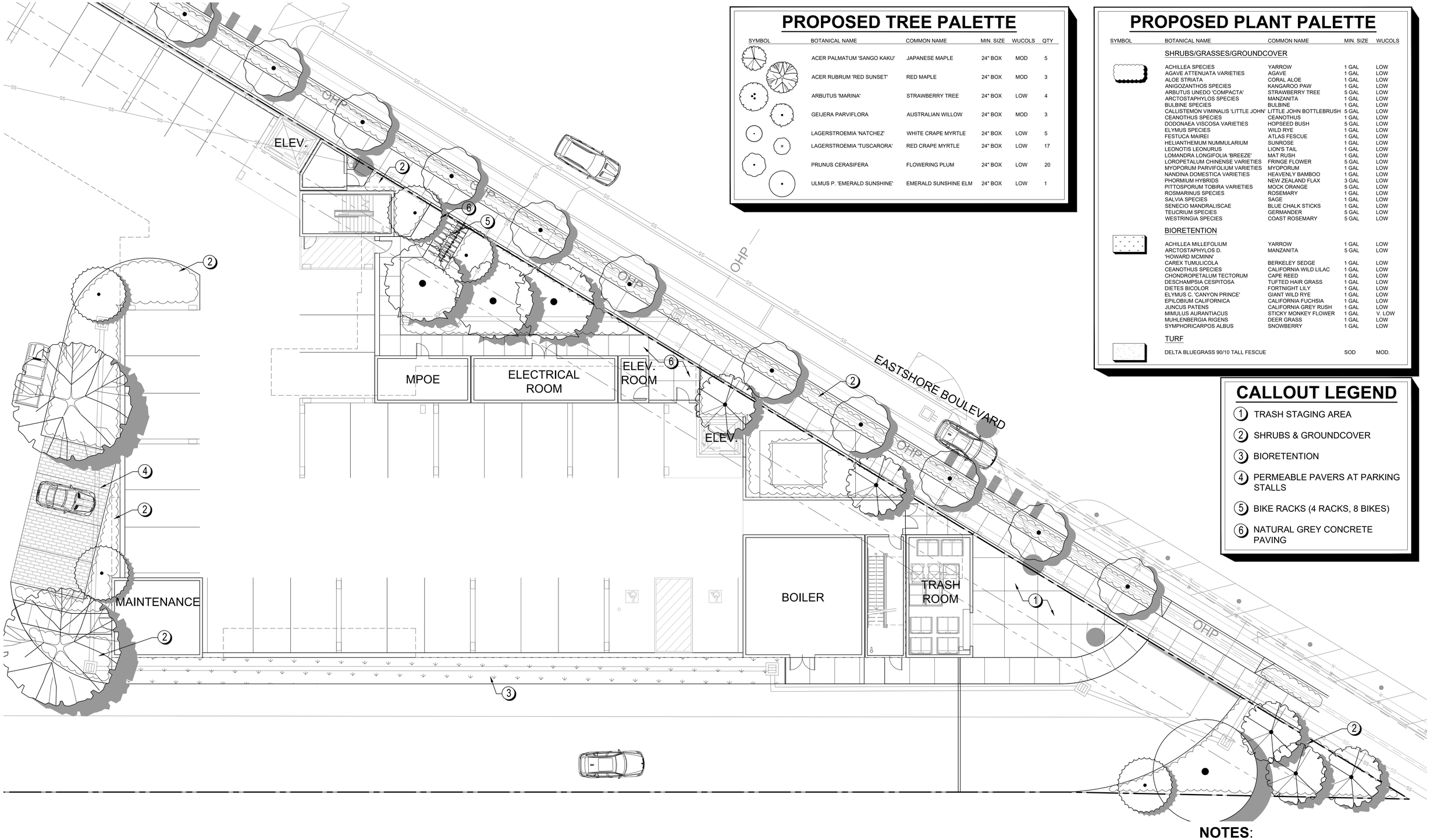
PUBLIC OPEN SPACE ENLARGEMENT
CALLOUT PLAN
MARCH 17, 2023

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-2
Project No. 03218

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PROPOSED TREE PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WUCOLS	QTY
	ACER PALMATUM 'SANGO KAKU'	JAPANESE MAPLE	24" BOX	MOD	5
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	ARBUTUS 'MARINA'	STRAWBERRY TREE	24" BOX	LOW	4
	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX	MOD	3
	LAGERSTROEMIA 'NATCHEZ'	WHITE CRAPE MYRTLE	24" BOX	LOW	5
	LAGERSTROEMIA 'TUSCARORA'	RED CRAPE MYRTLE	24" BOX	LOW	17
	PRUNUS CERASIFERA	FLOWERING PLUM	24" BOX	LOW	20
	ULMUS P. 'EMERALD SUNSHINE'	EMERALD SUNSHINE ELM	24" BOX	LOW	1

PROPOSED PLANT PALETTE

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	SHRUBS/GRASSES/GROUNDCOVER			
	ACHILLEA SPECIES	YARROW	1 GAL	LOW
	AGAVE ATTENUATA VARIETIES	AGAVE	1 GAL	LOW
	ALOE STRIATA	CORAL ALOE	1 GAL	LOW
	ANIGOZANTHOS SPECIES	KANGAROO PAW	1 GAL	LOW
	ARBUTUS UNEDO 'COMPACTA'	STRAWBERRY TREE	5 GAL	LOW
	ARCTOSTAPHYLOS SPECIES	MANZANITA	1 GAL	LOW
	BULBINE SPECIES	BULBINE	1 GAL	LOW
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN BOTTLEBRUSH	5 GAL	LOW
	CEANOTHUS SPECIES	CEANOTHUS	1 GAL	LOW
	DODONAEA VISCOSA VARIETIES	HOPSEED BUSH	5 GAL	LOW
	ELYMUS SPECIES	WILD RYE	1 GAL	LOW
	FESTUCA MAIREI	ATLAS FESCUE	1 GAL	LOW
	HELIANTHEMUM NUMMULARIUM	SUNROSE	1 GAL	LOW
	LEONOTIS LEONURUS	LION'S TAIL	1 GAL	LOW
	LOMANDRA LONGIFOLIA 'BREEZE'	MAT RUSH	1 GAL	LOW
	LOROPETALUM CHINENSE VARIETIES	FRINGE FLOWER	5 GAL	LOW
	MYOPORUM PARVIFOLIUM VARIETIES	MYOPORUM	1 GAL	LOW
	NANDINA DOMESTICA VARIETIES	HEAVENLY BAMBOO	1 GAL	LOW
	PHORMIUM HYBRIDS	NEW ZEALAND FLAX	3 GAL	LOW
	PITTOSPORUM TOBIRA VARIETIES	MOCK ORANGE	5 GAL	LOW
	ROSMARINUS SPECIES	ROSEMARY	1 GAL	LOW
	SALVIA SPECIES	SAGE	1 GAL	LOW
	SENECIO MANDRALISCAE	BLUE CHALK STICKS	1 GAL	LOW
	TEUCRIUM SPECIES	GERMANDER	5 GAL	LOW
	WESTRINGIA SPECIES	COAST ROSEMARY	5 GAL	LOW
	BIORETENTION			
	ACHILLEA MILLEFOLIUM	YARROW	1 GAL	LOW
	ARCTOSTAPHYLOS D. 'HOWARD MCMINN'	MANZANITA	5 GAL	LOW
	CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL	LOW
	CEANOTHUS SPECIES	CALIFORNIA WILD LILAC	1 GAL	LOW
	CHONDROPETALUM TECTORUM	CAPE REED	1 GAL	LOW
	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL	LOW
	DIETES BICOLOR	FORTNIGHT LILY	1 GAL	LOW
	ELYMUS C. 'CANYON PRINCE'	GIANT WILD RYE	1 GAL	LOW
	EPILOBIUM CALIFORNICA	CALIFORNIA FUCHSIA	1 GAL	LOW
	JUNCUS PATENS	CALIFORNIA GREY RUSH	1 GAL	LOW
	MIMULUS AURANTIACUS	STICKY MONKEY FLOWER	1 GAL	V. LOW
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	LOW
	SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL	LOW
	TURF			
	DELTA BLUEGRASS 90/10 TALL FESCUE		SOD	MOD.

CALLOUT LEGEND

1. TRASH STAGING AREA
2. SHRUBS & GROUNDCOVER
3. BIORETENTION
4. PERMEABLE PAVERS AT PARKING STALLS
5. BIKE RACKS (4 RACKS, 8 BIKES)
6. NATURAL GREY CONCRETE PAVING

NOTES:

1. SEE SHEET L-7 FOR PLANT PALETTE AND SITE AMENITIES IMAGERY.

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EL CERRITO APARTMENTS
El Cerrito, California

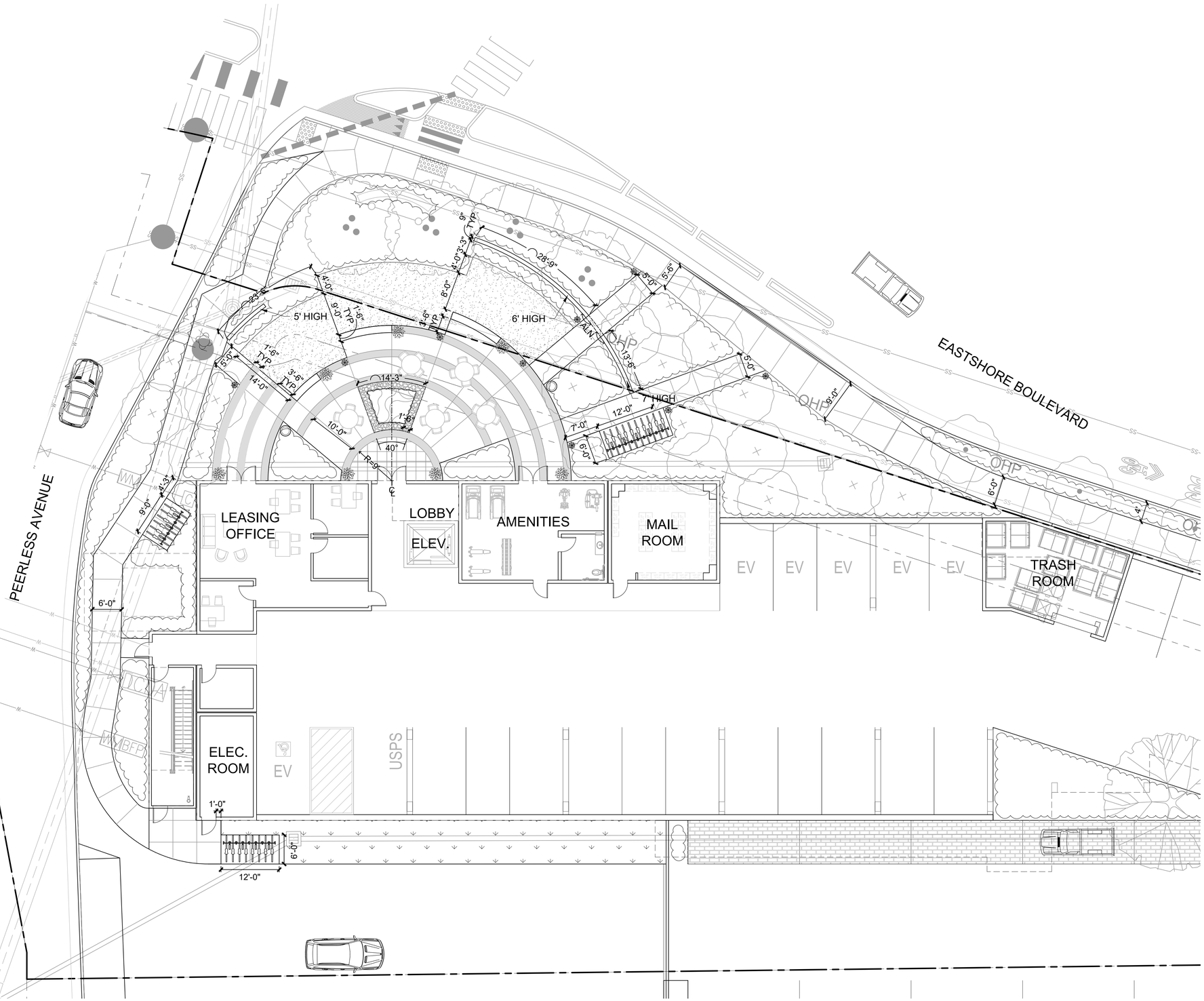
ENLARGEMENT
CALLOUT PLAN
MARCH 17, 2023

vanderToolen Associates
855 Bordeaux Way
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Napa, CA 94558
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www.vandertoolen.com

SCALE: 1" = 10'-0" NORTH

L-3
Project No. 03218

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PROPOSED TREE PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WUCOLS	QTY
	ACER PALMATUM 'SANGO KAKU'	JAPANESE MAPLE	24" BOX	MOD	5
	ACER RUBRUM 'RED SUNSET'	RED MAPLE	24" BOX	MOD	3
	ARBUTUS 'MARINA'	STRAWBERRY TREE	24" BOX	LOW	4
	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX	MOD	3
	LAGERSTROEMIA 'NATCHEZ'	WHITE CRAPE MYRTLE	24" BOX	LOW	5
	LAGERSTROEMIA 'TUSCARORA'	RED CRAPE MYRTLE	24" BOX	LOW	17
	PRUNUS CERASIFERA	FLOWERING PLUM	24" BOX	LOW	20
	ULMUS P. 'EMERALD SUNSHINE'	EMERALD SUNSHINE ELM	24" BOX	LOW	1

PROPOSED PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	WUCOLS
	SHRUBS/GRASSES/GROUNDCOVER			
	ACHILLEA SPECIES	YARROW	1 GAL	LOW
	AGAVE ATTENUATA VARIETIES	AGAVE	1 GAL	LOW
	ALOE STRIATA	CORAL ALOE	1 GAL	LOW
	ANIGOZANTHOS SPECIES	KANGAROO PAW	1 GAL	LOW
	ARBUTUS UNEDO 'COMPACTA'	STRAWBERRY TREE	5 GAL	LOW
	ARCTOSTAPHYLOS SPECIES	MANZANITA	1 GAL	LOW
	BULBINE SPECIES	BULBINE	1 GAL	LOW
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN BOTTLEBRUSH	5 GAL	LOW
	CEANOTHUS SPECIES	CEANOTHUS	1 GAL	LOW
	DODONAEA VISCOSA VARIETIES	HOPSEED BUSH	5 GAL	LOW
	ELYMUS SPECIES	WILD RYE	1 GAL	LOW
	FESTUCA MAIREI	ATLAS FESCUE	1 GAL	LOW
	HELIANTHEMUM NUMMULARIUM	SUNROSE	1 GAL	LOW
	LEONOTIS LEONURUS	LION'S TAIL	1 GAL	LOW
	LOMANDRA LONGIFOLIA 'BREEZE'	MAT RUSH	1 GAL	LOW
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	SENECIO MANDRALISCAE	BLUE CHALK STICKS	1 GAL	LOW
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	WESTRINGIA SPECIES	COAST ROSEMARY	5 GAL	LOW
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	ACHILLEA MILLEFOLIUM	YARROW	1 GAL	LOW
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	CEANOTHUS SPECIES	CALIFORNIA WILD LILAC	1 GAL	LOW
	CHONDROPETALUM TECTORUM	CAPE REED	1 GAL	LOW
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	JUNCUS PATENS	CALIFORNIA GREY RUSH	1 GAL	LOW
	MIMULUS AURANTIACUS	STICKY MONKEY FLOWER	1 GAL	V. LOW
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	LOW
	SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL	LOW
	TURF			
	DELTA BLUEGRASS 90/10 TALL FESCUE		SOD	MOD.

LAYOUT LEGEND

℄	CENTERLINE
R	RADIUS
← X →	DIMENSION
TYP.	TYPICAL

NOTES:

1. SEE SHEET L-7 FOR PLANT PALETTE AND SITE AMENITIES IMAGERY.

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(818)380-2600

EL CERRITO APARTMENTS

El Cerrito, California

PUBLIC OPEN SPACE ENLARGEMENT

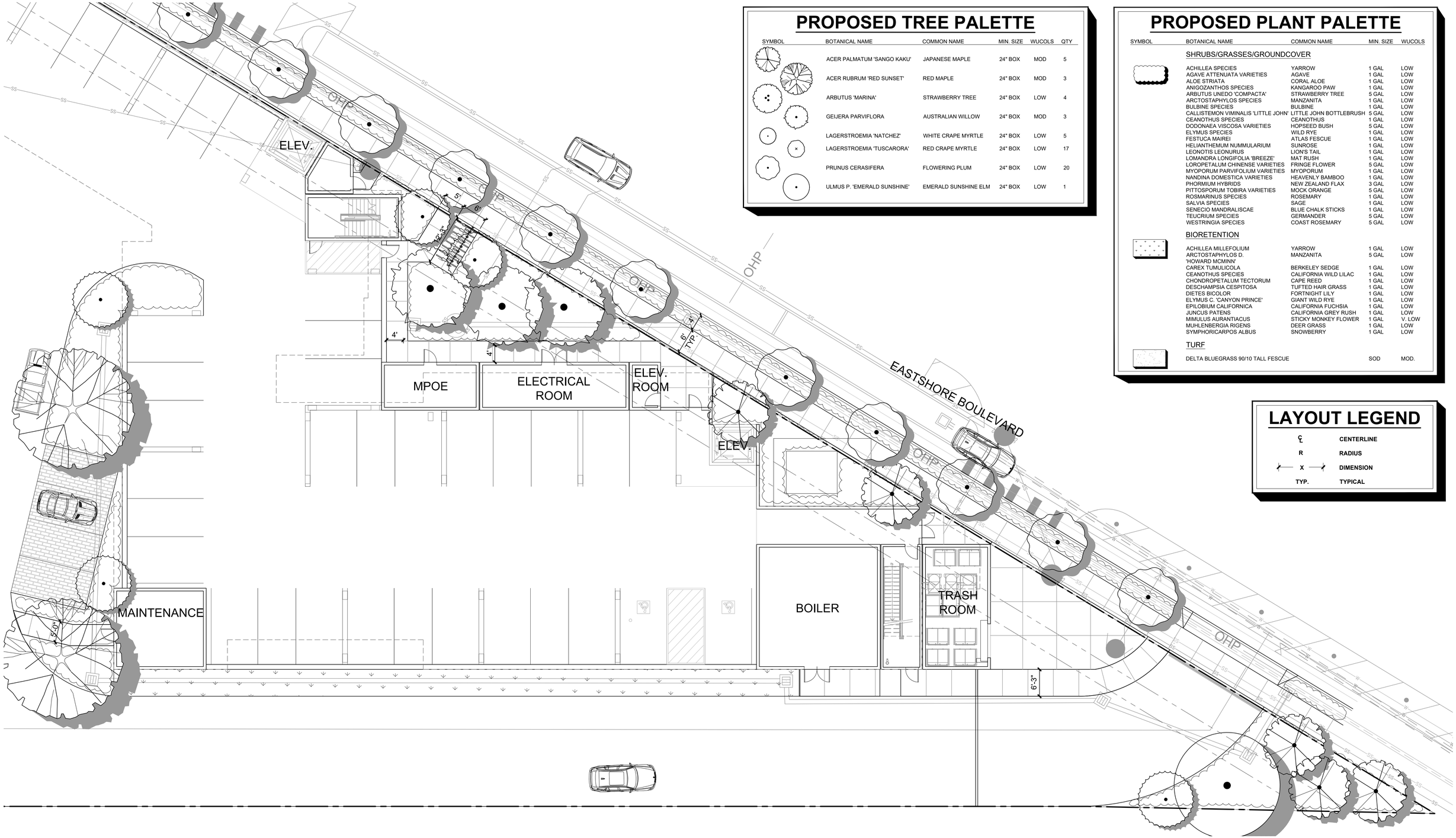
LAYOUT PLAN
MARCH 17, 2023

vanderToolen Associates
855 Bordeaux Way
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Napa, CA 94558
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www.vandertoolen.com

0' 5' 10' 20'
SCALE: 1" = 10'-0"
NORTH

L-4
Project No. 03218

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PROPOSED TREE PALETTE

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PROPOSED PLANT PALETTE

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	AGAVE ATTENUATA VARIETIES	AGAVE	1 GAL	LOW
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	SENECIO MANDRALISCAE	BLUE CHALK STICKS	1 GAL	LOW
	TEUCRIUM SPECIES	GERMANDER	5 GAL	LOW
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	BIORETENTION			
	ACHILLEA MILLEFOLIUM	YARROW	1 GAL	LOW
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	MIMULUS AURANTIACUS	STICKY MONKEY FLOWER	1 GAL	V. LOW
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	LOW
	SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL	LOW
	TURF			
	DELTA BLUEGRASS 90/10 TALL FESCUE		SOD	MOD.

LAYOUT LEGEND

℄	CENTERLINE
R	RADIUS
←— X —→	DIMENSION
TYP.	TYPICAL

NOTES:

1. SEE SHEET L-7 FOR PLANT PALETTE AND SITE AMENITIES IMAGERY.

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EL CERRITO APARTMENTS

El Cerrito, California

ENLARGEMENT
LAYOUT PLAN
MARCH 17, 2023

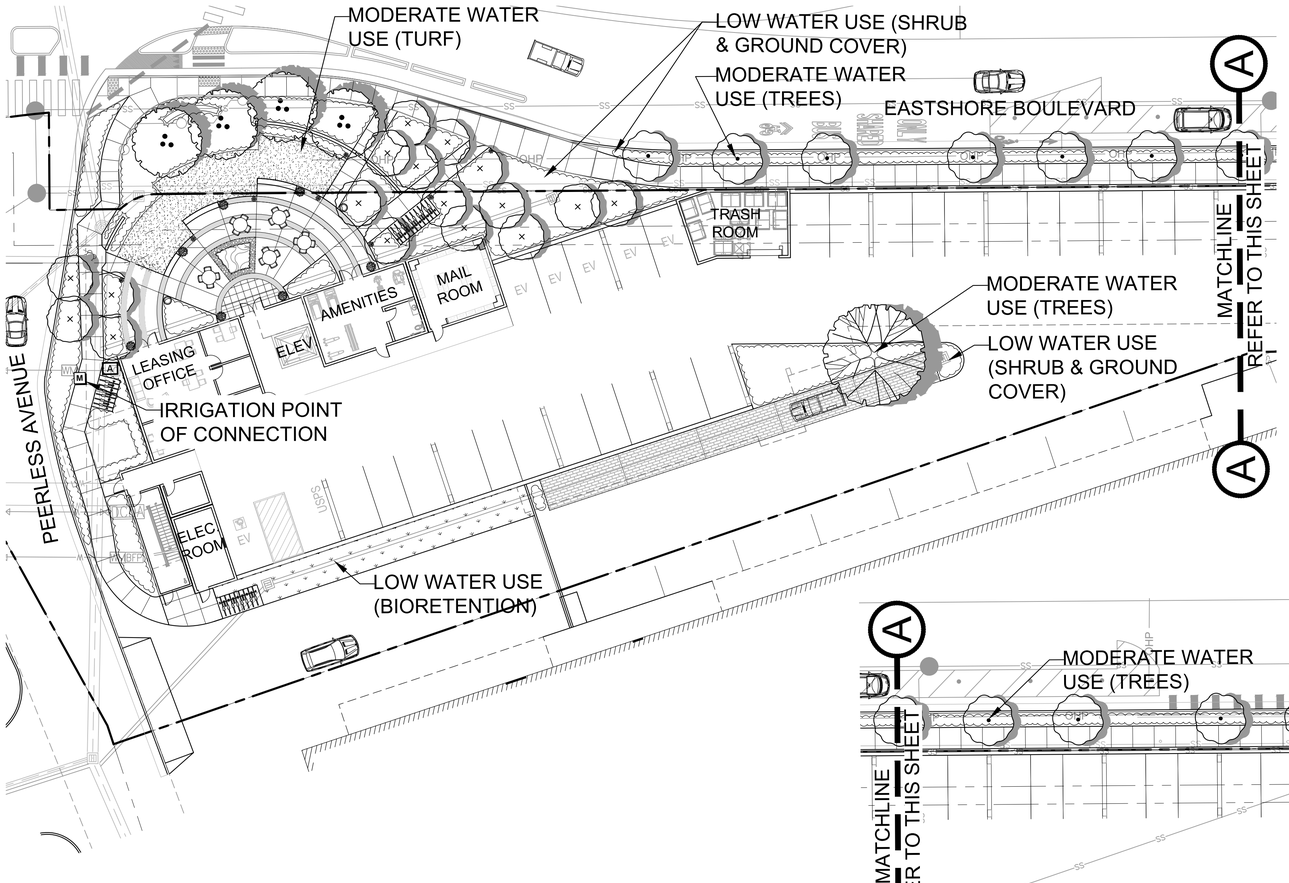
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NORTH

L-5
Project No. 03218

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WATER USE CALCULATIONS

Water Efficient Landscape Worksheet

Adapted from California Code of Regulations Title 23, Division 2, Chapter 2.7. Model Water Efficient Landscape Ordinance

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 → *EL CERRITO APARTMENTS*
Site Type → Residential — Allowed ETAF: 0.55
Annual Eto (inches/yr) → 49.4

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. LOW WATER USE PLTG.	0.2	Low	Drip	0.81	0.2	11,889	2,936	89,910
2. BIORETENTION	0.3	Low	Subsurface Drip	0.81	0.4	2,256	836	25,591
3. TURF	0.6	Mod.	Overhead Spray	0.75	0.8	955	764	23,400
4. LOW TREES	0.2	Low	Bubbler	0.81	0.2	204	50	1,543
5. MOD. TREES	0.4	Mod.	Bubbler	0.81	0.5	40	20	605
					SUBTOTAL →	15,344	4,605	141,049
Special Landscape Areas								
1					1	0	0	0
					SUBTOTAL →	0	0	0
					**Estimated Total Water Use (ETWU) →			141,049
					Maximum Allowed Water Allowance (MAWA) →			258,476

(a) Hydrozone #/Planting Description
1.) low water use planting
2.) bioretention
3.) turf
4.) low water use trees
5.) moderate water use trees

(b) Irrigation Method
Drip
Subsurface Drip
Overhead Spray
Bubbler
Bubbler

(c) Irrigation Efficiency
0.81 for drip
0.81 for drip
0.75 for spray
0.81 for bubbler
0.81 for bubbler

(*) ETWU (Annual Gallons Required)=
Eto x 0.62 x ETAF x Area where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year

(**) MAWA (Annual Gallons Allowed)=
(Eto) 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	4,605
	Total Area	15,344
	Average ETAF	0.30
All Landscape Areas		
	Total ETAF x Area	4,605
	Total Area	15,344
	Sitewide ETAF	0.30

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.

Calculator developed to meet code effective Dec. 1, 2015
This calculator is for estimating purposes only.

IRRIGATION STATEMENT

THE IRRIGATION DESIGN FOR THE SITE SHALL COMPLY WITH THE STATE OF CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (TITLE 23 - DIVISION 2-CHAPTER 2.7)

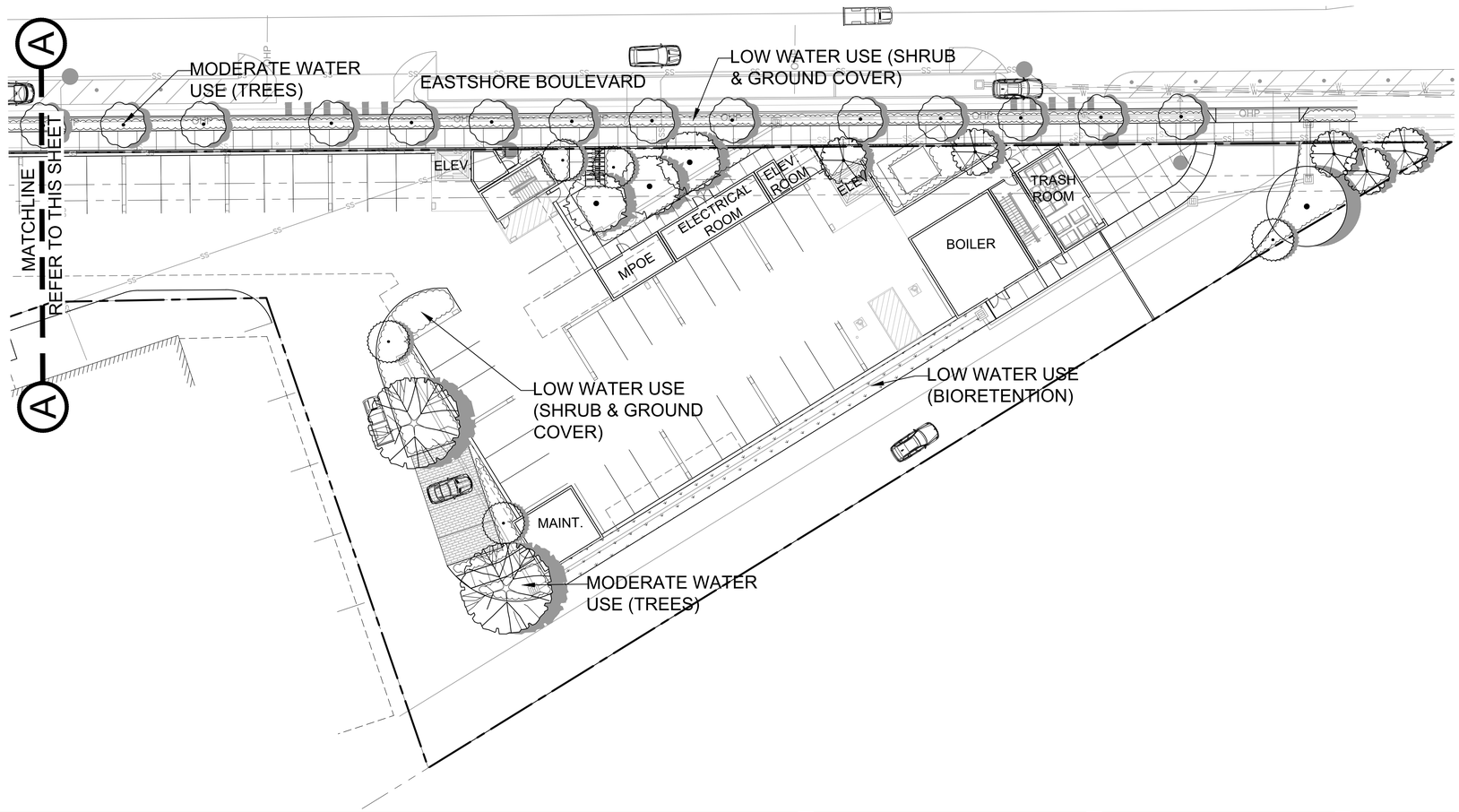
THE IRRIGATION SYSTEMS WILL BE AUTOMATICALLY CONTROLLED BY AN ET IRRIGATION CONTROLLER CAPABLE OF MULTIPLE PROGRAMMING AND INDEPENDENT TIMING OF INDIVIDUAL IRRIGATION SYSTEMS. THE CONTROLLER WILL HAVE A 24-HOUR CLOCK TO ALLOW MULTIPLE START TIMES AND REPEAT CYCLES TO ADJUST FOR SOIL PERCOLATION RATES.

THE IRRIGATION SYSTEMS WILL CONSIST PRIMARILY OF LOW VOLUME, LOW FLOW BUBBLERS FOR TREES, 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. THE ENTIRE SITE WILL BE DESIGNED TO RUN DURING NIGHTTIME HOURS WHEN IRRIGATION IS MOST EFFICIENT.

IRRIGATION EQUIPMENT LEGEND

SYMBOL	MANUF.	MODEL	DESCRIPTION
M	PER CITY	PER CITY	WATER METER SIZE, SERVICE LINE & PRESSURE TO BE DETERMINED.
MV FS	RAIN BIRD	FS-200-P 200-EFB-CP	FLOW-SENSING ASSEMBLY W/ NORMALLY-OPEN MASTER VALVE.
BF	FEBCO	LF 825 Y	LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER.
GV	NIBCO	T-113	ISOLATION GATE VALVE.
A	HUNTER	I-CORE	IRRIGATION CONTROLLER.
	RAIN BIRD	44-LRC	QUICK COUPLER VALVE, LOCKING TOP WITH RUBBER COVER.
	RAIN BIRD	PEB	ELECTRIC REMOTE CONTROL VALVE.
0.50	HUNTER	RZWS-18-50-CV	TREE BUBBLER.
	RAIN BIRD	XCZ-100-PRB-LC	WIDE FLOW DRIP KIT WITH PEB VALVE AND BASKET FILTER.
	OLSON	EH-12 1701-004	AREA TO RECEIVE SHRUB AND GROUND COVER DRIP EMITTERS.
M L O	HUNTER	MP ROTATOR	TURF SPRAY HEAD.
	HUNTER	ECO-WRAP	BIORETENTION DRIPLINE.
	APPROVED	SCH. 40	IRRIGATION MAINLINE. INSTALL AT 24" DEPTH. FOR 2.5" SIZE & SMALLER INSTALL AT 18" DEPTH OF COVER.
	APPROVED	SCH. 40	IRRIGATION LATERAL LINE. INSTALL AT 12" MINIMUM DEPTH.
	APPROVED	SCH. 40	PIPE & WIRE SLEEVING UNDER ALL PAVING AS INDICATED ON PLAN & AS DIRECTED IN FIELD BY OWNER'S REPRESENTATIVE. SIZE SHALL BE TWICE THE DIAMETER OF PIPE TO BE SLEEVED.



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OVERALL SITE
IRRIGATION PLAN
MARCH 17, 2023

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0' 15' 30' 60'
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NORTH

L-6
Project No. 03218

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TREES


ACER PALMATUM 'SANGO KAKU'


ACER RUBRUM 'RED SUNSET'


ARBUTUS 'MARINA'


GEIJERA PARVIFLORA


LAGERSTROEMIA 'NATCHEZ'


LAGERSTROEMIA 'TUSCARORA'


PRUNUS CERASIFERA


ULMUS P. 'EMERALD SUNSHINE'

SHRUBS


ACHILLEA SPECIES


ANIGOZANTHOS SPECIES


ARBUTUS UNEDO 'COMPACTA'


BULBINE SPECIES


CALLISTEMON VIMINALIS 'LITTLE JOHN'


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LEONOTIS LEONURUS


LOROPETALUM CHINENSE VARIETIES


NANDINA DOMESTICA VARIETIES

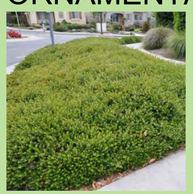

ROSMARINUS SPECIES

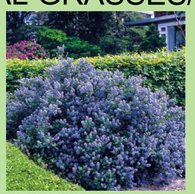

SALVIA SPECIES


TEUCRIUM SPECIES


WESTRINGIA SPECIES

ORNAMENTAL GRASSES/GROUNDCOVERS


ARCTOSTAPHYLOS 'EMERALD CARPET'


CEANOTHUS 'YANKEE POINT'


ELYMUS MAGELLANICUS

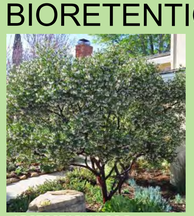

FESTUCA MAIREI

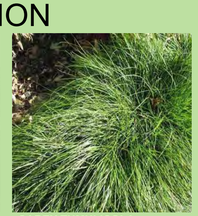

HELIANTHEMUM NUMMULARIUM


LOMANDRA LONGIFOLIA 'BREEZE'


SENECIO MANDRALISCAE

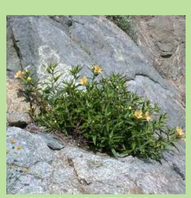
BIORETENTION


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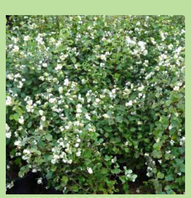

CAREX TUMULICOLA


DESCHAMPSIA CESPITOSA


JUNCUS PATENS


MIMULUS AURANTIACUS


MUHLENBERGIA RIGENS


SYMPHORICARPOS ALBUS

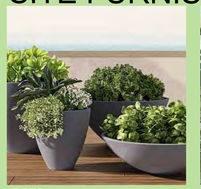
WALLS & PAVING


CONCRETE SEAT WALL WITH ARM RESTS


SPLIT FACE CMU WALL WITH CAP


NATURAL GRAY CONCRETE IN MEDIUM BROOM FINISH AND ACID ETCH FINISH

SITE FURNISHINGS


POTS


WATER FEATURE


BIKE RACK


TABLE AND CHAIRS


TRASH RECEPTACLE


BOLLARD LIGHT

AMG & Associates, LLC

16633 VENTURA BLVD., SUITE 1014
ENCINO, CALIFORNIA 91436
(818)380-2600

EL CERRITO APARTMENTS

El Cerrito, California

PLANT PALETTE & SITE IMAGERY

LANDSCAPE PLAN
MARCH 17, 2023

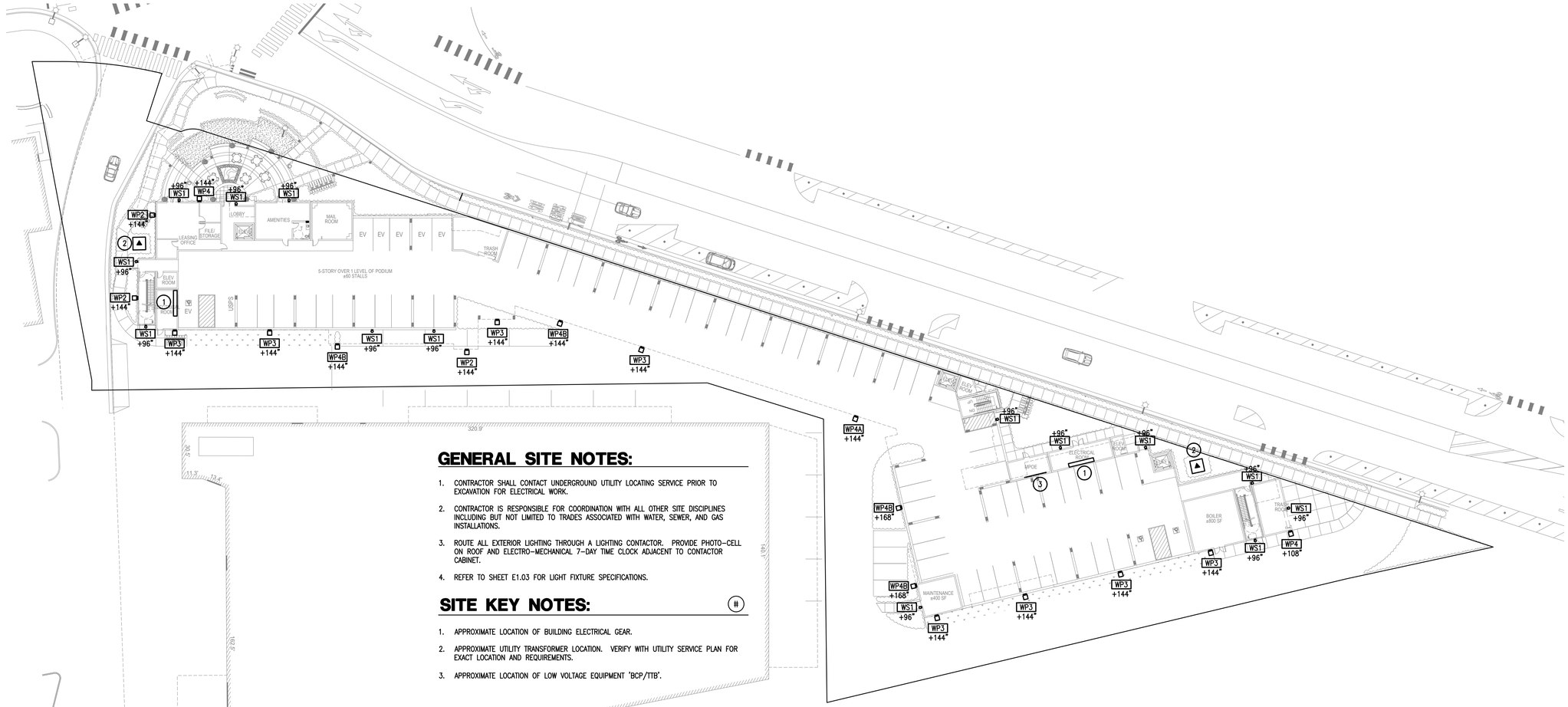
vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558

tel: 707.224.2299
www.vandertoolen.com

L-7

Project No. 03218

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GENERAL SITE NOTES:

1. CONTRACTOR SHALL CONTACT UNDERGROUND UTILITY LOCATING SERVICE PRIOR TO EXCAVATION FOR ELECTRICAL WORK.
2. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL OTHER SITE DISCIPLINES INCLUDING BUT NOT LIMITED TO TRADES ASSOCIATED WITH WATER, SEWER, AND GAS INSTALLATIONS.
3. ROUTE ALL EXTERIOR LIGHTING THROUGH A LIGHTING CONTACTOR. PROVIDE PHOTO-CELL ON ROOF AND ELECTRO-MECHANICAL 7-DAY TIME CLOCK ADJACENT TO CONTACTOR CABINET.
4. REFER TO SHEET E1.03 FOR LIGHT FIXTURE SPECIFICATIONS.

SITE KEY NOTES: (#)

1. APPROXIMATE LOCATION OF BUILDING ELECTRICAL GEAR.
2. APPROXIMATE UTILITY TRANSFORMER LOCATION. VERIFY WITH UTILITY SERVICE PLAN FOR EXACT LOCATION AND REQUIREMENTS.
3. APPROXIMATE LOCATION OF LOW VOLTAGE EQUIPMENT 'BCP/TTB'.

Schedule

Label	Manufacturer	Catalog	Input Power
WP2	Lithonia Lighting	DSXW1 LED 10C 530 30K T2M MVOLT	19.1
WP3	Lithonia Lighting	DSXW1 LED 10C 530 30K T3M MVOLT	19.1
WP4A	Lithonia Lighting	DSXW1 LED 10C 530 30K T4M MVOLT	19.1
WS1	Lithonia Lighting	WPX1 LED P1 30K Mvolt	11.49
WP4B	Lithonia Lighting	DSXW1 LED 10C 700 30K T4M MVOLT	26.2

DC ENGINEERING
Careful listening. Dynamic solutions.
www.dcengineering.net
208.288.2181 Project:23AMG01

NORTH

SITE ELECTRICAL PLAN
SCALE: 1"=30'-0"

E1.00

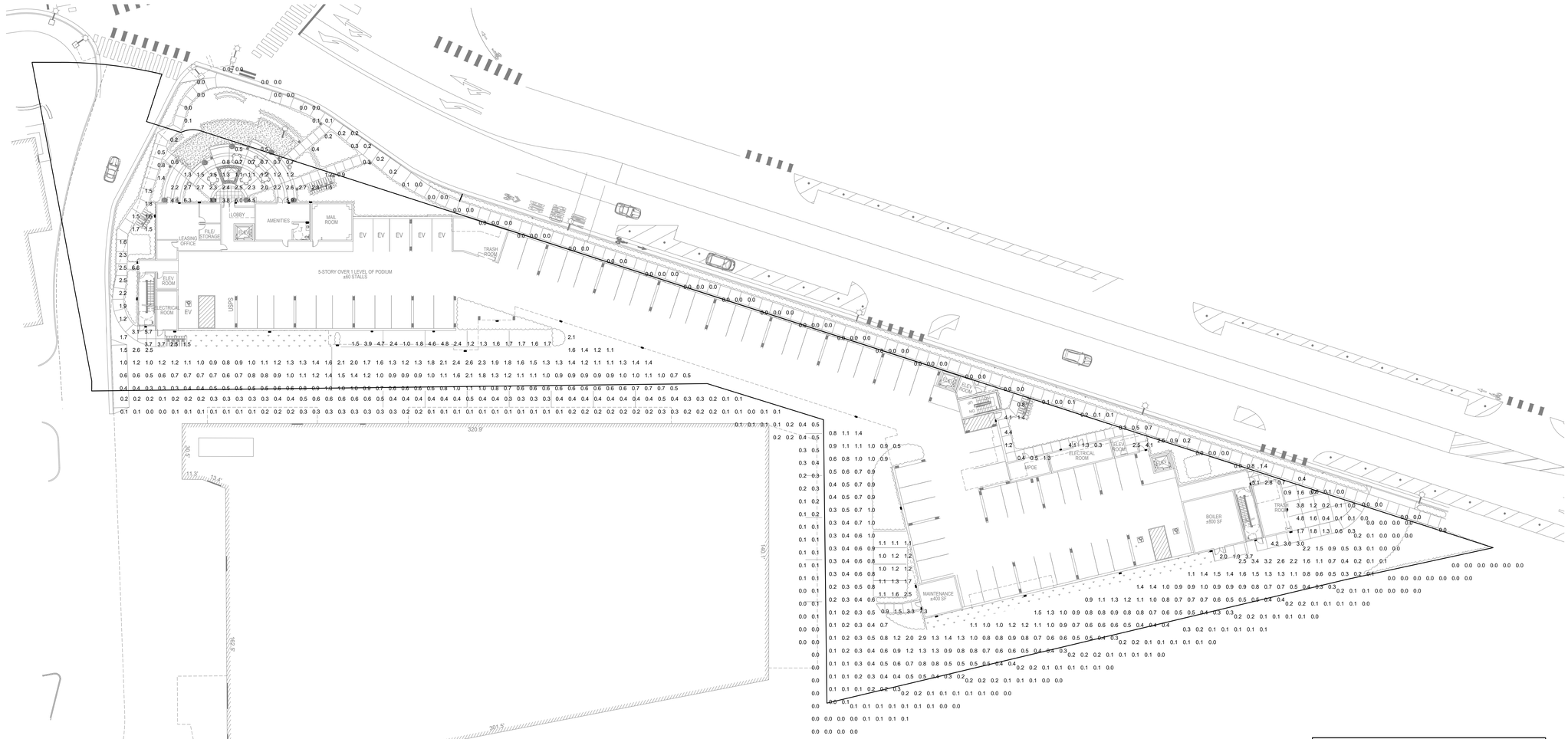
EL CERRITO APARTMENTS

EL CERRITO, CA

DATE: 10-14-2022
JOB NO.: 2017-694

AMG & ASSOCIATES

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860
Architecture. Design. Relationships.



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Drive Lane	+	0.7 fc	3.4 fc	0.0 fc	N/A	N/A
Parking Spaces	+	2.4 fc	4.8 fc	1.0 fc	4.8:1	2.4:1
Parking Spaces	+	1.3 fc	2.5 fc	1.0 fc	2.5:1	1.3:1
Property Line	+	0.2 fc	0.6 fc	0.0 fc	N/A	N/A
Public Space Sidewalk	+	2.0 fc	6.3 fc	0.2 fc	31.5:1	10.0:1
Sidewalk	+	3.3 fc	7.3 fc	0.9 fc	8.1:1	3.7:1
Sidewalk	+	1.9 fc	4.4 fc	0.3 fc	14.7:1	6.3:1
Sidewalk	+	1.6 fc	4.8 fc	0.0 fc	N/A	N/A
Sidewalk	+	2.2 fc	6.6 fc	0.2 fc	33.0:1	11.0:1
Sidewalk	+	2.9 fc	5.1 fc	0.7 fc	7.3:1	4.1:1
Sidewalk	+	2.1 fc	4.1 fc	0.8 fc	5.1:1	2.6:1
Street Sidewalk	+	0.1 fc	2.5 fc	0.0 fc	N/A	N/A
Drive Lane	+	1.1 fc	2.6 fc	0.3 fc	8.7:1	3.7:1

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NORTH

SITE PHOTOMETRIC PLAN

SCALE: 1"=30'-0"

E1.01

EL CERRITO APARTMENTS

AMG & ASSOCIATES

EL CERRITO, CA

DATE: 10-14-2022
JOB NO.: 2017-694

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860
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4.0 REFERENCES

4.1 REFERENCES

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LSA

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: September 25, 2023

TO: Sean Moss, Planning Manager, Community Development Department, El Cerrito
Richard Smeaton, Contract Planner, Community Development Department, El Cerrito

FROM: Theresa Wallace, AICP, Principal
Matthew Wiswell, AICP, Senior Planner/Project Manager

SUBJECT: California Environmental Quality Act (CEQA) Memorandum for the 1711-1755 Eastshore Boulevard Project, El Cerrito, California

This memorandum and attachments provide a description of the proposed 1711-1755 Eastshore Boulevard Project (project) and substantial evidence to confirm that the proposed project would not require further environmental analysis per Section 15168(c) of the California Environmental Quality Act (CEQA). The City of El Cerrito (City) is the CEQA lead agency for the proposed project. The approximately 1.82-acre project site is located at 1711-1755 Eastshore Boulevard in the City of El Cerrito, Contra Costa County. The proposed project would include the construction of a six-story apartment building with 315 residential units. The building would include 610 square feet of amenity space, 1,340 square feet of office space/mail room, and a ground floor parking garage with 68 parking spaces. Attachment A provides a description of the location, existing site characteristics, the proposed project, and the required approvals and entitlements.

The responses in an environmental checklist (included in Attachment B) prepared for the project demonstrate the proposed project was evaluated and impacts were mitigated to the degree possible as part of the San Pablo Avenue Specific Plan (SPASP) Project and Final Environmental Impact Report (FEIR)[1] and SPASP Update Final Supplemental Environmental Impact Report (2022 SEIR)[2] and no additional CEQA review is required. CEQA Guidelines Section 15168(c)(4) recommends using a written checklist or similar device to confirm whether the environmental effects of a subsequent activity were adequately covered in a program EIR. The responses contained in the checklist confirm that the project was considered within the scope of the evaluation within the SPASP FEIR and SEIR and no new impacts were identified and no new mitigation measures are required. The City can approve the proposed project as being within the scope of the SPASP covered by its FEIR and 2022 SEIR and no new environmental document for the purposes of CEQA clearance is required. Pursuant to Public Resources Code Section 21166 and CEQA Guidelines Section 15168, the proposed project would not require further review under CEQA. This analysis finds that a Notice of Determination may be prepared for the project and filed with the Contra Costa County Clerk.

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1 El Cerrito, City of, 2014. *San Pablo Avenue Specific Plan Final Environmental Impact Report.* August.

2 El Cerrito, City of. 2022. *San Pablo Avenue Specific Plan Update Final Supplemental Environmental Impact Report.* October.

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ATTACHMENT A

PROJECT DESCRIPTION

1.0 PROJECT DESCRIPTION

The following describes the proposed 1711-1755 Eastshore Boulevard Project (project), which is located within the planning are for the San Pablo Avenue Specific Plan (SPASP). This section includes a summary description of the project's location and existing site characteristics, required approvals, and entitlements.

1.1 PROJECT SITE

The following section describes the location and characteristics of the project site and provides a brief overview of the existing land uses within and in the vicinity of the site.

1.1.1 Location

The approximately 1.82-acre (79,396-square-foot) project site is located at 1711-1755 Eastshore Boulevard in the City of El Cerrito, Contra Costa County. The site is bounded by Peerless Avenue, a private driveway, to the north, Eastshore Boulevard to the east and south, and Interstate 80 (I-80) and a commercial building, that is undergoing conversion to a self-storage facility, to the west.

Regional vehicular access to the project site is provided by San Pablo Avenue, which is State Route 123. In addition, Interstate 80 (I-80) is located west of the site. The El Cerrito del Norte Bay Area Rapid Transit (BART) Station is located approximately 700 feet northeast of the site. Figure 1-1 shows the regional and local context of the project site. Figure 1-2 depicts an aerial photograph of the project site and surrounding land uses.

1.1.2 Site Characteristics and Current Site Conditions

The project site is generally level and consists of Assessor's Parcel Number (APN) 513-371-005. The project site is currently unutilized and consists of a surface parking lot that was previously used by the commercial building that is undergoing renovation to a self-storage facility immediately west of the project site. The majority of the project site is paved with limited ornamental landscaping. Existing site conditions are shown in Figure 1-3.

1.1.3 Existing General Plan and Zoning

The project site is designated Transit-Oriented Higher Intensity Mixed-Use (TOHIMU) in the City's General Plan, and the zoning designation is also TOHIMU. The TOHIMU designation allows for mixed use development with a 65-foot height limit.

1.1.4 San Pablo Avenue Specific Plan

In 2014, the City adopted the SPASP to provide a guide for the future of San Pablo Avenue, identify improvements, and adopt context-sensitive regulations that can be applied along its length to adjacent areas. The SPASP creates a framework for transforming San Pablo Avenue into a multimodal corridor that functions as a place that can provide a multitude of opportunities for living, working, and community life. Key principles in the SPASP include increasing a sense of place and community identity; attracting private investment; strengthening partnerships; enhancing the

public realm; promoting the everyday use of transit, walking, and biking; and fostering environmental sustainability.

Environmental impacts associated with implementation of the SPASP were evaluated in the 2014 Final Environmental Impact Report (2014 SPASP FEIR).[1] The 2014 SPASP FEIR evaluates the environmental impacts of approximately:

- 1,706 units of residential development;
- 3,840 new residents; and
- 243,112 square feet of commercial floor area.

The SPASP includes a form-based code that regulates development along the corridor, a plan for complete streets, and infrastructure analysis. The Complete Streets Plan addresses circulation and public investment needs along San Pablo Avenue and adjoining streets to attract new users to the area while proactively mitigating the impacts of future population growth on mobility in the SPASP area. The infrastructure analysis identifies the utility providers for San Pablo Avenue, provides a general review of capacity limitations, and recommends feasible improvements and associated costs to avoid significant impacts on the level of service.

In 2022, the City updated the SPASP to: (1) increase the total development capacity allowed by the SPASP; (2) increase the size of the SPASP Plan Area from approximately 206 to 208 acres through the addition of one parcel; and (3) provide revisions and refinements to various components of the SPASP. The 2022 update to the SPASP increased the amount of allowable net new residential development by 2,500 units and the amount of allowable net new commercial development by 100,000 square feet, which was analyzed in the 2022 Supplemental FEIR.[2] Therefore, the 2014 FEIR and 2022 SEIR evaluate a total of 3,206 residential units and 343,112 square feet of commercial floor area.

1.1.5 Surrounding Land Uses

The project site is located along the San Pablo Avenue corridor, which is east of the project site and is predominantly developed with commercial, retail, and multi-family residential uses. Commercial uses generally surround the project site to the north, east and south. As noted above, a vacant commercial building borders the project site to the west. Further west of the project site is Interstate 80 (I-80) across which are single-family residential units.

1.2 PROPOSED PROJECT

This section provides a description of the proposed project as identified in the materials provided by AMG & Associates, LLC (the project applicant) dated June 1, 2022. The project applicant proposes to

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1 El Cerrito, City of, 2014. *San Pablo Avenue Specific Plan Final Environmental Impact Report*. August.

2 El Cerrito, City of. 2022. *San Pablo Avenue Specific Plan Update Final Supplemental Environmental Impact Report.* October.

develop the project site with a new six-story, approximately 315-unit apartment building with approximately 1,340 square feet of office space/mail room, 610 square feet of amenity space and a ground-floor parking garage. Figure 1-4 depicts the conceptual site plan and ground level floor plan for the proposed project. Floor plans for the second through sixth level are shown in Figure 1-5, and conceptual building elevations are shown in Figures 1-6 and 1-7.

1.2.1 Building Program

The proposed project would consist of the demolition of the existing surface parking lot on the project site and the construction of a six-story building with 315 apartment units and ground-level parking and amenity space. The proposed building would be a maximum of approximately 79 feet in height. The proposed building would be built to the lot line along Eastshore Boulevard and would have side setbacks of approximately 30 feet. As shown in Figure 1-4, amenity space would be located on the ground floor of the building in the northern corner, and would consist of tenant amenity space (such as a fitness center). Additional space would also be provided for a leasing office and mail room. The remainder of the ground floor would consist of parking and building mechanical space.

A total of 315 dwelling units are proposed with 295 studio units and 20 one-bedroom units. Three elevators and two stairways would serve all residential units on Levels 2 through 6. Common laundry units would be provided on each floor.

1.2.2 Open Space and Landscaping

The proposed project would include a total of approximately 6,060 square feet of public open space that would consist of a public pedestrian plaza with landscaping and seating areas at the northwest corner of the project site at the intersection of Eastshore Boulevard and the private drive Peerless Avenue. Approximately 3,400 square feet of the pedestrian plaza area would be on land owned by the project applicant, and the remainder would be on the adjacent city owned right-of-way. Additional landscaping would be provided along the Eastshore Boulevard frontage, including street trees and a vegetated strip along the sidewalk. A total of 58 new trees would be planted across the project site.

1.2.3 Access, Circulation, and Parking

A secured parking garage would be located on the ground floor of the proposed building. As shown in Figure 1-4, automobile access to the parking garage would be provided via an access road along the eastern edge of the proposed building that would be accessible via driveways along Eastshore Boulevard and Peerless Avenue. However, this access would be shared with the adjacent mini-storage facility currently under development that would use this to access the storage units facing the outside of the mini-storage facility. The parking garage would include a total of 68 parking spaces within the parking garage and an additional 9 exterior spaces along the access road, and a dedicated United States Postal Service parking space for a total of 75 spaces. Of these spaces 2 would be accessible spaces, 5 would be for electric vehicle charging, and 1 would be a combination accessible electric vehicle charging station. Long-term bicycle parking would be provided with storage units within units for a total of 315 spaces and an additional 35 short-term bicycle parking spaces would be provided near the driveways to the access roads.

1.2.4 Utilities and Infrastructure

The project site is located in an urban area and is currently served by existing utilities, including: water, sanitary sewer, storm drainage, and electricity infrastructure.

1.2.4.1 Water

Water service in the City of El Cerrito is provided by the East Bay Municipal District (EBMUD). The Pardee Reservoir (supplied by the Mokelumne River Basin system) is the main source of water for EBMUD. An 8-inch water line is located along Peerless Avenue and would serve the site through a new connection.

1.2.4.2 Wastewater

The Stege Sanitary District (SSD) provides wastewater service to businesses along San Pablo Avenue, including the project site. Wastewater generated at the project site would be collected via new connections to the existing 8-inch sewer line within Eastshore Boulevard. Per Section 7.3 of the SSD Ordinance Code, SSD requires payment of a sewer connection charge to the District.

1.2.4.3 Stormwater

The existing asphalt paving and impervious surfaces on the project site account for approximately 87 percent of the 79,396-square-foot project site. The proposed project would incorporate a variety of low-impact development stormwater treatment facilities including flow-through biofiltration planters, pervious pavers, and bay-friendly landscaping that would use a selection of native and drought-tolerant plants. The proposed project would include connections to the existing storm drains within the Peerless Avenue private driveway and Eastshore Boulevard that range from approximately 12 to 42 inches in size. Upon completion of the proposed project, the amount of impervious surfaces would be reduced to approximately 70 percent of the project site.

1.2.4.4 Electricity

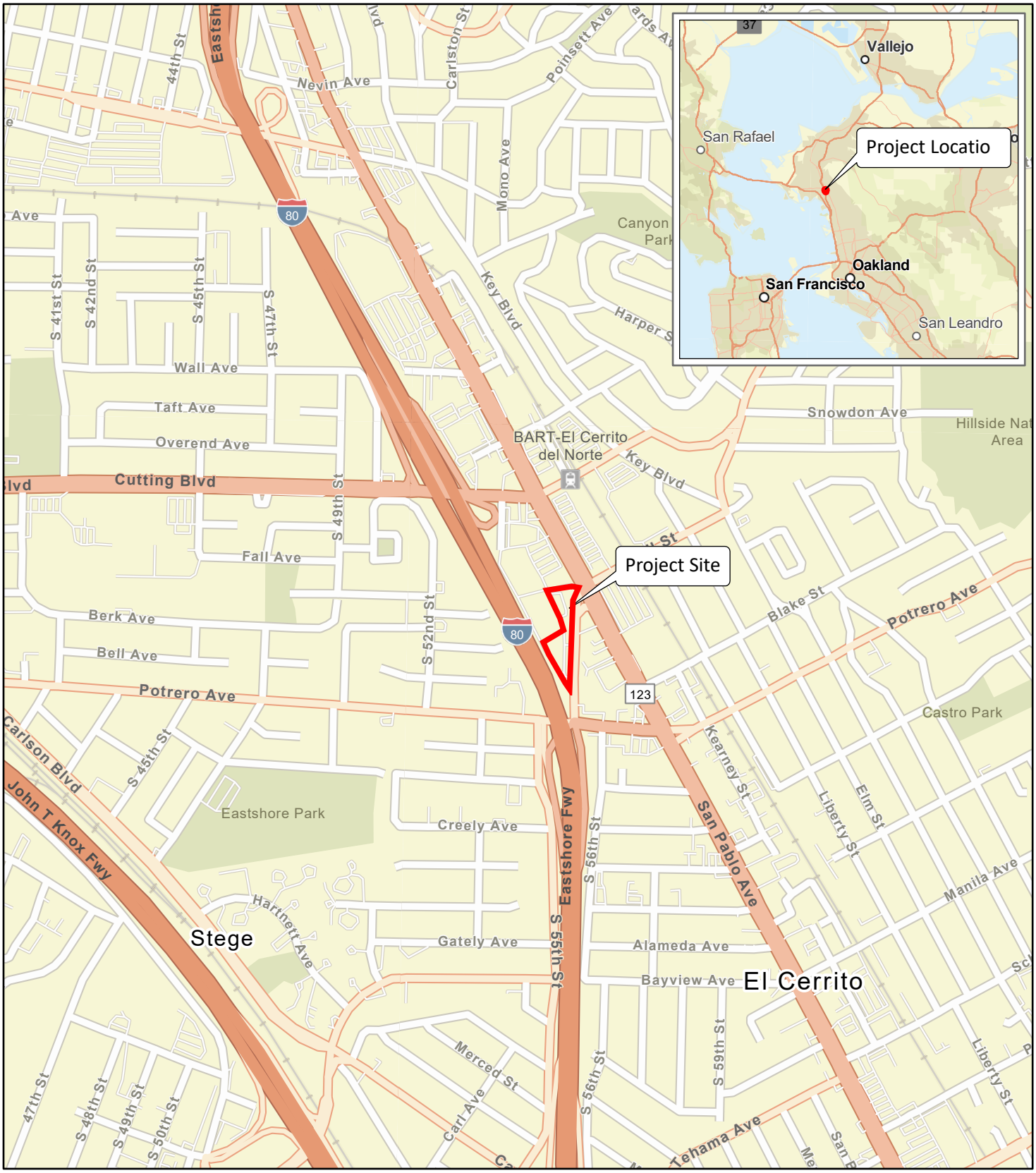
Electricity service to the site is provided by Pacific Gas and Electric (PG&E). There are two transformers that serve the project site that are located along the Peerless Avenue private driveway (north of the proposed leasing office) and along Eastshore Boulevard (between the proposed southern elevator and the trash room).

1.3 APPROVALS/PERMITS

The proposed project is subject to Tier II Design Review consideration by the City's Design Review Board. In addition, the following approvals and permits would be required for the project:

- City of El Cerrito demolition, stormwater control plan, grading and building permit approval;
- Approval of density bonus and related waivers and concessions;
- City of El Cerrito affordable housing regulatory agreement
- EBMUD water connection approval;

- Stege Sanitary District connection approval;
- PG&E electricity connection approval;
- California Department of Transportation (Caltrans) encroachment permit for service connections.



LSA

Project Locatio

FIGURE 1-1

N

0 500 1000

FEET

SOURCE: Esri World Street Map (2021)

J:\20230940\GIS\Pro\1711 Eastshore Project\1711 Eastshore Project.aprx (5/8/2023)

1711 Eastshore Project

Project Location and egional Vicinity



LSA

FIGURE 1-2

Project Site Boundary

N

0 200 400

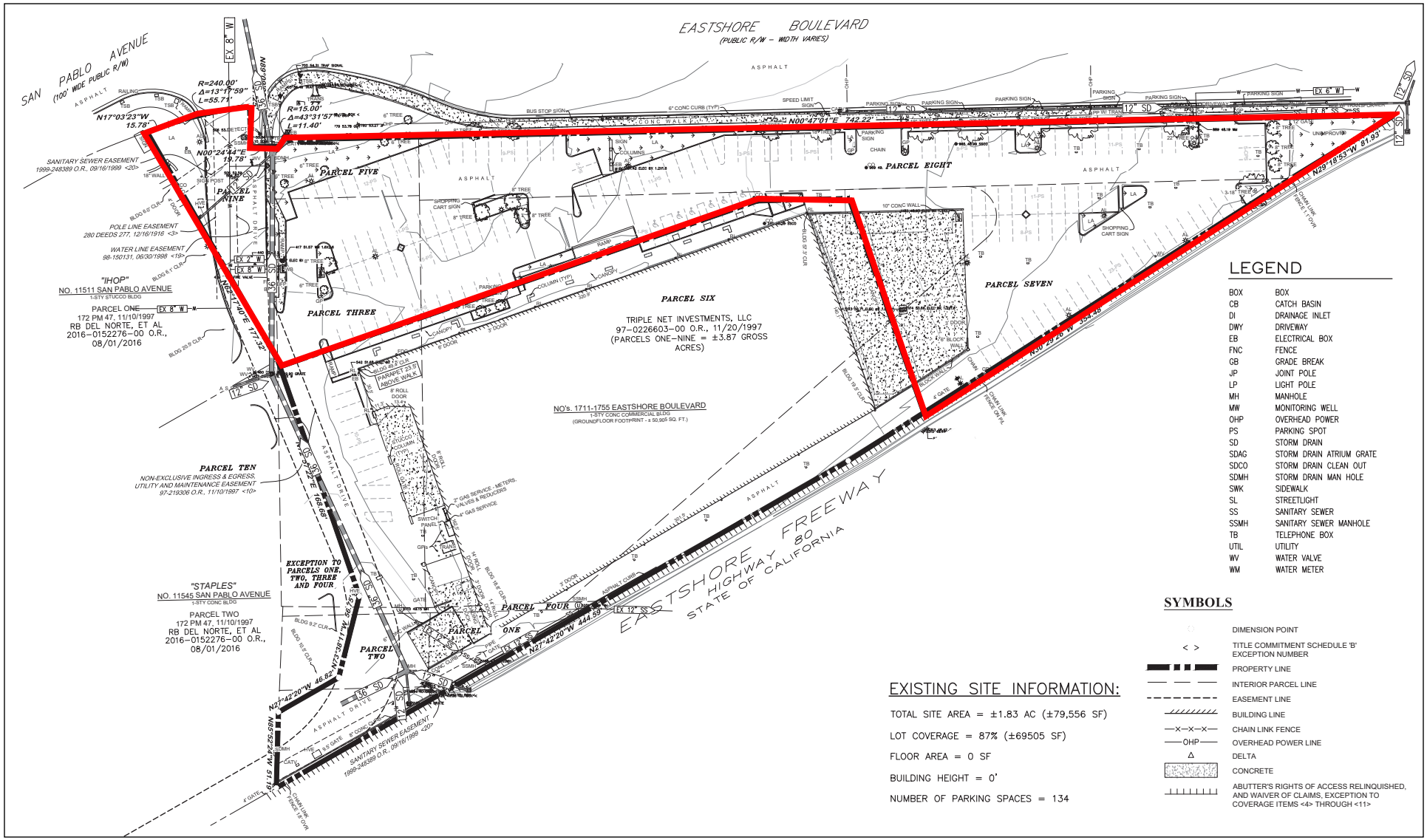
FEET

SOURCES: Google Earth, 6/28/2022; LSA, 2023

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1711 Eastshore Boulevard Project

Aerial Photograph of the Project Site and Surrounding Land Uses



LSA

FIGURE 1-3

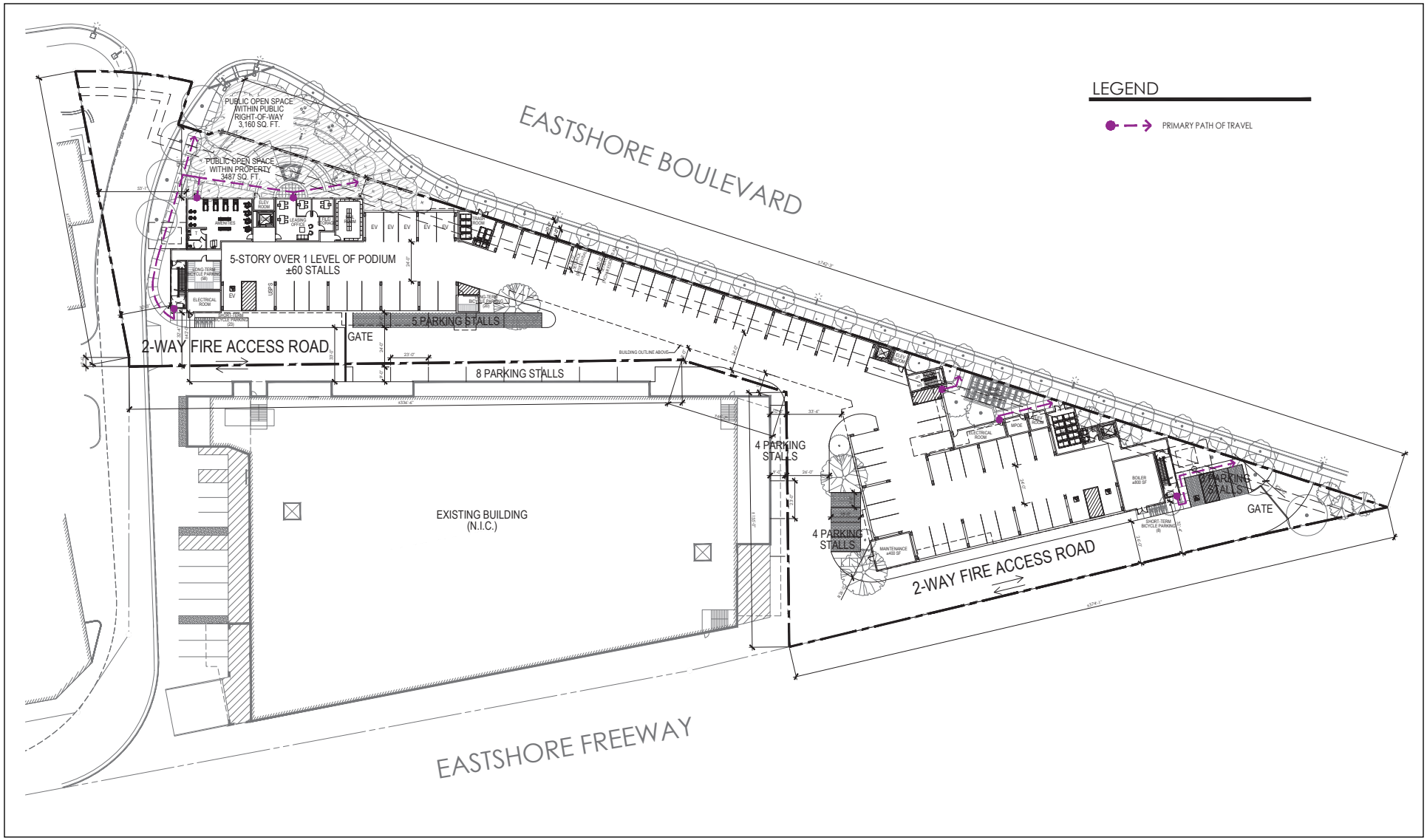
Project Site Boundary

0 45 90
FEET

1711 Eastshore Boulevard Project
Existing Conditions

SOURCE: Bellecci & Associates, Inc., 2023

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LSA

FIGURE 1-4

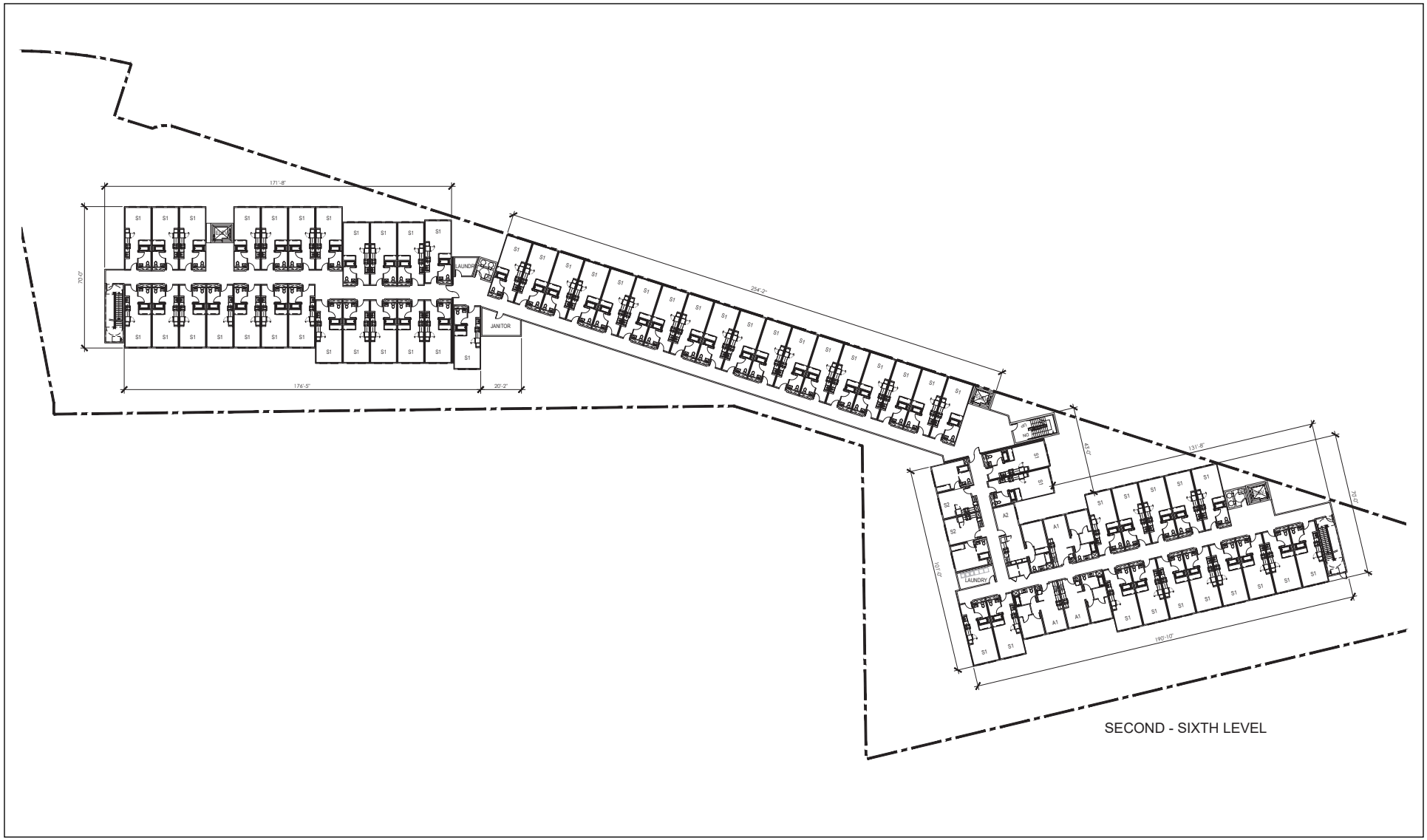
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SOURCE: AO Architects, 06/01/2022

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1711 Eastshore Boulevard Project
Proposed Conceptual Site Plan



LSA

FIGURE 1-5

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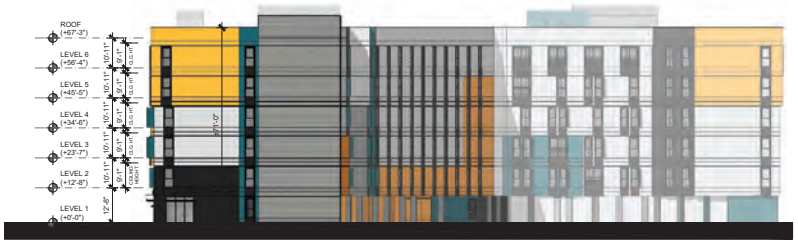
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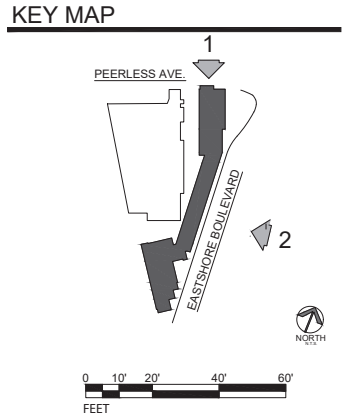
1711 Eastshore Boulevard Project
Proposed Conceptual Floor Plans - Second through Sixth Levels

SOURCE: AO Architects, 06/01/2022

I:\20230940\G\Prop Conceptual Flr Plans_2nd-6th Lvls.ai (5/9/2023)







LSA

FIGURE 1-6

NOT TO SCALE

SOURCE: AO Architects, 06/01/2022

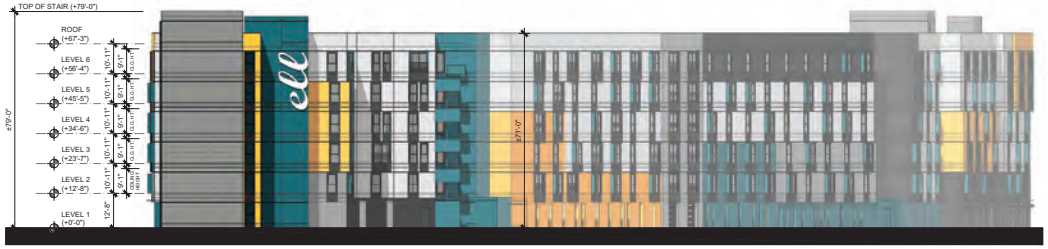
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1711 Eastshore Boulevard Project

Proposed Conceptual Building Elevations - North and East

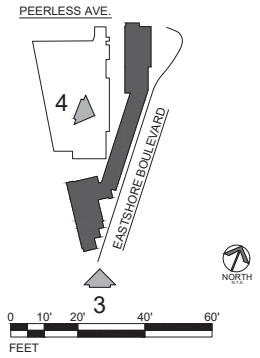


WEST ELEVATION 4



SOUTH ELEVATION 3

KEY MAP



LSA

FIGURE 1-7

NOT TO SCALE

SOURCE: AO Architects, 06/01/2022

I:\20230940\G\Prop Conceptual Bldg Elevs_S&W.ai (5/9/2023)

1711 Eastshore Boulevard Project

Proposed Conceptual Building Elevations - South and West

ATTACHMENT B

ENVIRONMENTAL CHECKLIST

2.0 ENVIRONMENTAL CHECKLIST

CEQA Guidelines Section 15168(c)(4) recommends using a written checklist or similar device to confirm whether the environmental effects of a subsequent activity were adequately covered in a program Environmental Impact Report (EIR). This checklist confirms that the proposed 1711-1755 Eastshore Boulevard Project (project) is within the planning area for the San Pablo Avenue Specific Plan Update Final Supplemental EIR (2022 SEIR)[1] and will have no new significant environmental effects and no new mitigation measures are required beyond those identified in the 2022 SEIR and, as such, the City of El Cerrito (City) can approve the proposed project as being within the scope of the SPASP covered by its EIR and no new environmental document is required. Pursuant to Public Resources Code Section 21166 and CEQA Guidelines Section 15168, the proposed project would not require further review under CEQA.

2.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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 a 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 day or nighttime views in the area?	☐	☐	☐	☒

2.1.1 Discussion

As described in more detail in Attachment A – Project Description, the approximately 1.82-acre project site is currently undeveloped and consists of a surface parking lot for the vacant commercial building, that is undergoing conversion to a self-storage facility, immediately west of the project site. The majority of the project site is paved with limited ornamental landscaping. The proposed project would result in the redevelopment of the project site with a six-story apartment building as well as associated open space and landscaping, circulation and parking, and infrastructure improvements.

As noted in the 2022 SEIR, implementation of the SPASP would enhance the visual and aesthetic character of the planning area by incorporating Form-Based Code (FBC) and Complete Streets design

[1] El Cerrito, City of. 2022. *San Pablo Avenue Specific Plan Update Final Supplemental Environmental Impact Report.* October.

and development standards into new projects to support and maintain a strong sense of place and visual identity on San Pablo Avenue. These design and development standards are included in Chapter 2, Form Based Code, and Chapter 3, Complete Streets, of the SPASP.

The primary potentially significant impact to scenic resources identified in the 2022 SEIR was the potential for implementation of the SPASP projects to obstruct scenic views of Mt. Tamalpais, the Golden Gate Bridge, San Francisco skyline, East Bay Hills, and Albany Hill from public rights-of-way including roadways and sidewalks, BART station platforms, and areas of lower elevation hillside homes in El Cerrito and Richmond (2022 SEIR Impact 4-1). While this impact was determined to be significant and unavoidable, the 2022 SEIR requires individual development projects to complete further evaluation to determine if they meet the standards and guidelines set forth in the SPASP. The SPASP addresses views from the public rights-of-way of streets that run east and west, as well as from the BART platforms.

In accordance with Mitigation Measure 4-1 of the 2022 SEIR, it should be noted that the proposed project would include the development of a new six-story building that would be approximately 79 feet in height, which could alter some views of the East Bay Hills from the areas west of the project site. The proposed project is located within the SPASP's Transit-Oriented Higher Intensity Mixed-Use (TOHIMU) zone, which allows for building heights of up to 65 feet (85 feet for affordable housing projects). The proposed project would be an affordable housing project as 20 percent of the total units would be reserved for low-income households and 5 percent would be reserved for moderate-income households. Therefore, the proposed project would not exceed the maximum permitted building height limit of 85 feet.

The 2022 SEIR states that Mitigation Measure 4-1 shall be implemented through subsequent permits, conditions, agreements, or other measures consistent with SPASP Section 2.02. The project sponsor has complied with Mitigation Measure 4-1 by providing visual simulations of the proposed project from required viewpoints as a part of the project plans dated June 1, 2022. The proposed project would be subject to Tier II discretionary approval by the Planning Commission and Design Review Board as the project complies with the intent and regulations of the SPASP.

The 2022 SEIR also found that potentially significant impacts could result from the introduction of new light and glare in the Plan Area (Impact 4-2), but concluded that implementation of Mitigation Measure 4-2, which requires the installation of non-reflective building materials and windows, would reduce potential glare impacts of individual development projects to a less-than-significant level.

2.1.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures, beyond implementation of 2022 SEIR Mitigation Measures 4-1 and 4-2, are required.

2.1.3 Conclusion

The proposed project is generally consistent with the type and intensity of development analyzed in the 2022 SEIR, is within the allowable height and length limits, would be consistent with policies related to visual character and design, and would not result in a substantial increase in light and glare. No substantial changes in environmental circumstances have occurred, and no new information that could not have been known at the time the 2022 SEIR was certified has been identified which would lead to new or more severe significant impacts. Therefore, the 2022 SEIR adequately evaluated visual resource impacts that would occur with implementation of the project and no new of more severe impacts would occur.

2.2 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 the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

2.2.1 Discussion

There are no agricultural or forestry resources located within or near the project site. The SPASP area is predominantly urbanized and is classified as "Urban and Built-Up Land" by the State

Department of Conservation.[2] The City of El Cerrito, and the SPASP area, does not contain any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The proposed project is also not located on land that is currently under a Williamson Act contract.[3] In addition, the City does not contain woodland or forestland cover, nor land zoned for timberland production. Therefore, the proposed project would not result in a significant impact to agriculture or forestry resources.

2.3 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

2.3.1 Discussion

The project site is located with the San Francisco Bay Area Air Basin. The Bay Area Air Quality Management District (BAAQMD) is the regional government agency that monitors and regulates air pollution within the air basin. The Federal Clean Air Act and the California Clean Air Act mandate the control and reduction of specific air pollutants. Under these Acts, the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established ambient air quality standards for specific "criteria" pollutants, designed to protect public health and welfare. Primary criteria pollutants include carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), particulate matter (PM_{10}), sulfur dioxide (SO_2), and lead (Pb). Secondary criteria pollutants include ozone (O_3), and fine particulate matter ($PM_{2.5}$).

Based on the BAAQMD attainment status and ambient air quality monitoring data, ambient air quality in the vicinity of the project site has basically remained unchanged since certification of the 2022 SEIR.

[2] California Department of Conservation, 2022. California Important Farmland Finder (map). Website: maps.conservation.ca.gov/dlrp/ciff/ (accessed June 2023)

[3] California Department of Conservation, 2022. California Williamson Act Enrollment Finder (map). Website: https://maps.conservation.ca.gov/dlrp/WilliamsonAct/ (accessed June 2023).

2.3.1.1 Clean Air Plan Consistency

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of an air quality plan is to bring an area into compliance with the requirements of federal and State air quality standards.

The BAAQMD's clean air plan was referenced to determine if the project would conflict with or obstruct implementation of an applicable air quality plan, which for the 2022 SEIR was the 2017 Bay Area Clean Air Plan. The 2022 SEIR found that vehicle miles traveled (VMT) would increase at a lower rate under the SPASP than population or service population growth, thus resulting in a less-than-significant impact related to consistency with the applicable clean air plan.

The BAAQMD's current clean air plan is the 2017 Clean Air Plan, which was adopted on April 19, 2017. The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the BAAQMD will continue progress toward attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas reduction targets for 2030 and 2050, and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve greenhouse gas (GHG) reduction targets.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants (TACs), to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The proposed project would locate future residents within walking distance of public transportation, jobs, restaurants, and services. The proposed project would develop high-intensity, transit-oriented residential and commercial uses on the site, similar to what the SPASP envisioned. In addition, the population and housing units included in the proposed project would fall within the total development anticipated by the 2022 SEIR, as identified in Section 2.14, Population and Housing. The proposed project would not result in new or more significant population growth impacts than were analyzed and described in the 2022 SEIR. Therefore, the population growth associated with the proposed project is consistent with the SPASP.

Consistency with the Clean Air Plan is determined by whether or not the proposed project would result in significant and unavoidable air quality impacts or hinder implementation of control measures (e.g., excessive parking or preclude extension of transit lane or bicycle path). As discussed above, implementation of the proposed project would not substantially increase population, vehicle trips, or VMT. Additionally, the project would not result in significant and unavoidable air quality impacts. Therefore the project would support the goals of the Clean Air Plan and would not conflict with any of the control measures identified in the plan or designed to bring the region into attainment. This impact would remain less than significant as identified in the 2022 SEIR.

2.3.1.2 Construction-Related Air Quality Impacts

The 2022 SEIR identified that construction activities associated with implementation of the SPASP would result in short-term emissions from construction activities including site grading, asphalt paving, building construction, and architectural coating. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby.

The 2022 SEIR did not quantify construction emissions; however the 2022 SEIR determined that implementation of the SPASP could result in a potentially significant impact. The 2022 SEIR identified Mitigation Measure 5-1 to reduce construction impacts to a less-than-significant level.

Construction emissions were estimated for the proposed project using the California Emissions Estimator Model version 2020.4.0 (CalEEMod), consistent with BAAQMD recommendations. For purposes of this CalEEMod analysis, the construction schedule for all improvements was assumed to be approximately 24 months, starting in 2023 and ending in 2024. Construction-related emissions are presented in Table 2.A. CalEEMod output sheets are included in the Air Quality and Construction Health Risk Assessment[4] prepared for the proposed project, which is included as Appendix A.

Table 2.A: Project Construction Emissions in Pounds Per Day

Project Construction	ROG	NO_x	Exhaust PM_{10}	Fugitive Dust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust $PM_{2.5}$
2023	1.3	8.3	0.1	2.3	0.1	0.6
2024	10.7	3.7	0.1	2.2	0.1	0.6
BAAQMD Thresholds	**54.0**	**54.0**	**82.0**	**BMP**	**82.0**	**BMP**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: MIG (February 2023).
BMP = best management practices

As shown in Table 2.A, construction emissions associated with the project would be less than significant for ROG, NO_x, $PM_{2.5}$, and PM_{10} exhaust emissions. The BAAQMD requires the implementation of the BAAQMD's Basic Construction Mitigation Measures to reduce construction fugitive dust impacts to a less-than-significant level. 2022 SEIR Mitigation Measure 5-1 requires the implementation of BAAQMD-recommended measures. Therefore, with implementation of 2022 SEIR Mitigation Measure 5-1, the proposed project would not result in any new or more significant construction-related air quality impacts than were evaluated in the 2022 SEIR. This impact would remain less than significant with mitigation as identified in the 2022 SEIR.

[4] MIG, Inc. 2023. *Air Quality and Construction Health Risk Assessment for the El Cerrito Eastshore Boulevard Apartments Project*. February 3.

2.3.1.3 Ambient Air Quality Impacts

As described above, the 2022 SEIR determined that the growth proposed by the SPASP Update would be consistent with (and not obstruct or hinder the implementation) of the 2017 Clean Air Plan's control measures, would not increase vehicle trips at a greater rate than service population, and would not increase health risk disparities among Bay Area communities. The growth proposed by a planning document (such as the SPASP Update) would not have the potential to generate long-term operational criteria air pollutant emissions that could impede the attainment of air quality standards in the San Francisco Bay Area Air Basin if it meets these criteria. As described in Section 2.14, Population and Housing, the proposed project is within the growth projections of the SPASP Update and 2022 SEIR, and therefore would not impede the attainment of air quality standards because operational impacts associated with this growth were already analyzed in the 2022 SEIR and determined to be less than significant. Therefore, the proposed project would not result in any new or more significant ambient air quality impacts and would remain less than significant.

2.3.1.4 Short-Term Exposure of Sensitive Receptors to Toxic Air Contaminants

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks.

According to the BAAQMD, a project would result in a significant impact if it would: individually expose the maximum exposed individual receptor (MEIR) to TACs resulting in an increased cancer risk greater than 10.0 in one million, increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient $PM_{2.5}$ increase greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). A significant cumulative impact would occur if the project in combination with other projects located within a 1,000-foot radius of the project site would expose sensitive receptors to TACs resulting in an increased cancer risk greater than 100.0 in one million, an increased non-cancer risk of greater than 10.0 on the hazard index (chronic), or an ambient $PM_{2.5}$ increase greater than 0.8 $\mu g/m^3$ on an annual average basis. Impacts from substantial pollutant concentrations are discussed below.

The 2022 SEIR determined that construction activities could result in short-term emissions of diesel particulate matter (DPM), a known TAC. The potential for individual development projects to exceed BAAQMD thresholds for construction emissions was identified as a potentially significant impact in the 2022 SEIR (Impact 5-2). Mitigation Measure 5-2 in the 2022 SEIR requires project-level construction health risk assessments (HRA) on a project-by-project basis, either through screening or refined modeling, to identify impacts and, if necessary, include performance standards and industry-recognized measures to reduce exposure. Reduction in health risk can be accomplished through, though is not limited to, the following measures: construction equipment selection; use of alternative fuels and engine retrofits; modified construction schedule; and implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust. The 2022 SEIR determined that implementation of these industry-recognized measures would reduce TAC construction impacts to a less-than-significant level.

A construction HRA was prepared for the proposed project, which evaluates construction period health risk to off-site receptors. The project site is located in an urban area adjacent to existing residential uses that could be exposed to diesel emission exhaust during the construction period. To estimate the potential cancer risk associated with construction of the proposed project from equipment exhaust (including diesel particulate matter), a dispersion model was used to translate an emission rate from the source location to a concentration at the receptor location of interest (i.e., a nearby residence and worksites). Dispersion modeling varies from a simpler, more conservative screening-level analysis to a more complex and refined detailed analysis. This refined assessment was conducted using the CARB exposure methodology with the air dispersion modeling performed using the USEPA dispersion model AERMOD. The model provides a detailed estimate of exhaust concentrations based on site and source geometry, source emissions strength, distance from the source to the receptor, and meteorological data. Construction equipment is unknown at this time, therefore, the default of Tier II was used. Table 2.C identifies the results of the analysis utilizing the CalEEMod default of Tier II construction Equipment. Model snap shots of the sources are shown in Appendix A.

Table 2.B: Unmitigated Inhalation Health Risks from Project Construction to Off-Site Receptors

Receptor Age Range	Health Risk Increase at MEIR (Excess Cancer Risk per Million Population)	
	Scenario 2 (Tier II)	**Scenario 3 (Tier IV)**
Residential Child Receptor (3rd Trimester)	30.8	7.2
Residential Child Receptor (0-2 Years of Age)	29.6	6.9
Residential Child Receptor (2-16 Years of Age)	3.9	0.9
Residential Adult Receptor (16-30 Years of Age)	0.6	0.1
Residential Adult Receptor (30	0.5	0.1
	10.0	10.0
Threshold Exceeded?	**Yes**	**No**

Source: MIG (2023).

As shown in Table 2.C, with Tier II equipment, the risk would exceed the BAAQMD cancer risk threshold of 10 in one million. As discussed above, the potential for individual development projects to exceed BAAQMD thresholds for construction emissions was identified as a potentially significant impact in the 2022 SEIR (Impact 5-2). Mitigation Measure 5-2 in the 2022 SEIR requires individual development projects that exceed these thresholds to implement measures to reduce these impacts to the extent feasible. Implementation of the following project specific condition of approval would be required to reduce substantial pollutant concentrations during project construction and would reduce this impact of the project to a less-than-significant level. Table 2.C identifies the results of the analysis with implementation of Project-Specific Condition of Approval 1.

Project-Specific Condition of Approval 1:

> The project contractor shall ensure all off-road diesel-powered construction equipment of 50 horsepower or more used for the project meet the California Air Resources Board (CARB) Tier 4 emissions standards or equivalent.

Additionally, with implementation of Project-Specific Condition of Approval 1, the highest chronic hazard index would be 0.005, which would not exceed the threshold of 1.0. In addition, the maximum $PM_{2.5}$ concentration would be 0.026 µg/m^3, which would not exceed the BAAQMD significance threshold of 0.30 µg/m^3. Therefore, with implementation of Project-Specific Condition of Approval 1, the proposed project would not result in any new or more significant construction-related health risk impacts than were evaluated in the 2022 SEIR.

2.3.1.5 Long-Term Exposure of Sensitive Receptors to Toxic Air Contaminants

The 2022 SEIR made the following finding related to 2014 FEIR SPASP Mitigation Measure 5-3:

> "… the *California Supreme Court in California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." As such, an evaluation of the environment's effect on future residents and employees proposed by the Specific Plan Update is no longer required under CEQA, and Mitigation Measure 5-3, as identified in the 2014 Certified EIR is no longer applicable."

As such, the analysis in this checklist focuses on how the proposed project could affect the environment. As described above, a construction health-risk assessment was prepared for the proposed project. The proposed project would not result in cancer risk increases that exceed the BAAQMD threshold of 10.0 excess cancers per million population with the implementation of Project-Specific Condition of Approval 1, which is consistent with 2022 2022 SEIR Mitigation Measure 5-2.

2.3.1.6 Odors

The 2022 SEIR identified that the SPASP area would include potential odor sources that could affect new sensitive receptors. Most of these major existing sources are however already buffered by existing uses. Responses to odors are subjective, and vary by individual and type of use. Sensitive land uses that include outdoor uses, such as residences and possibly daycare facilities, are likely to be affected most by odors. Consistent with SPASP policies and 2022 SEIR Mitigation Measure 5-4, the proposed project would be located in an area surrounded by residential and commercial uses and would not be a source of odors or located in an area where substantial odors (such as those associated with industrial, manufacturing, processing, or treatment uses) are generated.

2.3.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures, beyond implementation of 2022 SEIR Mitigation Measures 5-1 and 5-2 and Project-Specific Condition of Approval 1, are required.

2.3.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and construction activities would be required to comply with 2022 SEIR Mitigation Measure 5-1 and 5-2 and Project-Specific Condition of Approval 1. As such, the 2022 SEIR adequately evaluated the potential air quality impacts of the proposed project there would be no new impact associated with air quality.

2.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

2.4.1 Discussion

The 2022 SEIR found that implementation of the SPASP would largely result in minimal impacts to biological resources because the SPASP area is a highly developed urban area with approximately 90 percent of the land developed, recently disturbed, or ruderal. The 2022 SEIR concluded that the Plan Area does not contain any plant or animal species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service (USFW), nor does the Plan Area contain any federally protected wetlands. The only identified riparian habitat or other sensitive natural community in the Plan Area is riparian habitat adjacent to Cerrito Creek (near the El Cerrito Plan

Shopping Center parking lot and Ohlone Greenway) and Baxter Creek. However, the proposed project is not located within the vicinity of either of these resources and therefore would not result in any impacts to these habitats.

The 2022 SEIR identified potential impacts associated with the removal of existing trees with implementation of the SPASP. Removal of existing trees containing nests or eggs of migratory birds, raptors, or bird species during the nesting season could be considered an "unlawful take" under the Federal Migratory Bird Treaty Act and USFW provisions protecting migratory and nesting birds. The proposed project would result in the removal of existing grass and shrubs on the project site. However, tree removal would comply with all City requirements to minimize impacts on biological resources during removal. The 2022 SEIR identified Mitigation Measure 6-1 to minimize potentially significant impacts associated with tree removal on nesting birds to less-than-significant levels.

2.4.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures, beyond implementation of 2022 SEIR Mitigation Measure 6-1, are required.

2.4.3 Conclusion

The proposed project would be consistent with the type of development analyzed within the 2022 SEIR. Tree removal activities would be conducted in conformance with 2022 SEIR Mitigation Measure 6-1. As such, the 2022 SEIR adequately evaluated the potential biological impacts of the proposed project there would be no new impact on biological resources.

2.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

2.5.1 Discussion

The 2022 SEIR identified properties or features within the SPASP area that may be eligible for listing in a local, State, or federal register of historic resources (Impact 7-1). However, the project site does not contain any built resources.

The 2022 SEIR concluded that the potential impact of development within the Plan Area on cultural resources, including historic, archaeological resources and human remains would be less than

significant with implementation of recommended mitigation measures. Specifically, disturbance of previously unknown archaeological resources, including human remains, could occur during grading and development of individual project sites within the SPASP area, and there is a reasonable possibility that archaeological resources could be uncovered during these activities (Impacts 7-2). The 2022 SEIR identifies Mitigation Measures 7-2 that would reduce the potential impacts on known or undisclosed cultural resources to less-than-significant levels.

Previous records searches in the area indicate that there are no recorded cultural resources at the project site.[5,6] Three previously recorded resources, P-07-004477, P-07-000069, and P-07-000094, are located within a 0.5-mile radius of the project site. However, these cultural resources are not located directly adjacent to the project site and would not be directly affected by construction or operation of the proposed project. Therefore, the proposed project would not be located in a sensitive area for archaeological resources.

2022 SEIR Mitigation Measure 7-2 includes specific steps to be implemented in the event that subsurface cultural resources are otherwise encountered during ground-disturbing activities. Therefore, compliance with 2022 SEIR Mitigation Measure 7-2 would ensure that potential impacts to previously unknown archaeological resources or human remains would be less than significant.

2.5.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures, beyond implementation of 2022 SEIR Mitigation Measures 7-2, are required.

2.5.3 Conclusion

The proposed project would be consistent with the type of development analyzed within the 2022 SEIR. Ground disturbing activities would be conducted in conformance with 2022 SEIR Mitigation Measures 7-2. As such, the 2022 SEIR adequately evaluated the potential cultural resource impacts of the proposed project there would be no new impact on cultural resources.

2.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
Would the project:				
a. Result in a 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?	☐	☐	☐	☒

[5] BCR Consulting, LLC. 2016. *Archaeological Resources Assessment. 11615 and 11645 San Pablo Avenue, El Cerrito, Contra Costa County, California.* February 25.

[6] LSA. 2019. *Cultural Resource Records Search Results for the 10919 San Pablo Avenue Project, El Cerrito, Contra Costa County (LSA Project CEC1901).* February 20.

2.6.1 Discussion

The 2022 SEIR determined that implementation of the SPASP Update would result in a net increase in natural gas and electricity consumption, an increase in VMT and associated energy to power the vehicles, and a possible increase in diesel fuel demand in order to power emergency backup generators. However, energy use under the SPASP Update would be more efficient than current usage due to State and local building code requirements and the Plan Area's proximity to rich transit services. In addition, the SPASP Update would result in a greater percent of service population growth than VMT growth, indicating there would be less VMT generated per service population by including the additional service population proposed by the SPASP Update.

In addition, the SPASP Form-Based Code (FBC) includes the following components related to energy conservation:

- **2.05.06.02 Energy.** The intent of this section is to "reduce energy usage and El Cerrito's carbon footprint using energy efficiency and generation technologies in support of Climate Action Plan goals." The section address passive heating and cooling techniques, Zero-Net Energy buildings, solar power, wind power, and related topics.

- **2.05.06.03 Urban Farming.** Related to energy conservation, this section encourages saving energy by reducing food miles traveled, and mitigating the urban heat island effect, by encouraging urban farming.

Therefore, 2022 SEIR determined that the SPASP would not cause inefficient, wasteful, and unnecessary consumption of energy.

2.6.1.1 Construction-Period Energy Use

The anticipated construction schedule assumes that the proposed project would be built over 24 months. The proposed project would require demolition, grading, site preparation, and building activities during construction.

Construction of the proposed project would require energy for the manufacture and transportation of building materials, preparation of the site for demolition and grading activities, and building construction. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. In order to increase energy efficiency on the site during project construction, the project would restrict equipment idling times to 5 minutes or less and would require construction workers to shut off idle equipment, as required by Mitigation Measure 5-1. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant, and no mitigation would be required.

2.6.1.2 Operational Energy Use

Energy use consumed by the proposed project would be associated with electricity consumption and fuel used for vehicle trips associated with the project. The population and housing units

included in the proposed project would fall within the total development anticipated by the 2022 SEIR, as identified in Section 2.14, Population and Housing. Therefore, the proposed project would not result in any energy use beyond that which was already assumed for the project site in the 2022 SEIR. In addition, the proposed buildings would be constructed to Cal Green Building Code standards, which requires mandatory energy efficiency measures to be implemented.

The proposed project would implement various TDM measures, including providing unbundled parking, promoting bicycle usage, designating a TDM coordinator, providing car sharing services, displaying real-time transit information, and providing commute program training.[7] Therefore, the project would include features that would reduce vehicle trips and VMT and would increase the use of alternate means of transportation, which would help to reduce gasoline and diesel use. In addition, new automobiles purchased by visitors driving to and from the project site would be subject to fuel economy and efficiency standards applied throughout the State. As such, the fuel efficiency of vehicles associated with the project site would increase throughout the life of the project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses.

Therefore, the proposed project would not result in the wasteful, inefficient or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Impacts would be less than significant, and no mitigation would be required.

2.6.1.3 Conflict or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

As previously stated, the proposed project would be required to comply with the CALGreen Code, which includes provisions related to insulation and design aimed at minimizing energy consumption. In addition, the proposed project would implement TDM measures and would help the area change from an auto-oriented corridor to a multi-modal oriented community, with related energy conservation resulting from the more efficient use of transportation, circulation, and infrastructure systems. Therefore, the proposed project would be consistent with the State's goal of reducing VMT and vehicular GHG emissions as outlined in Senate Bill 743. The proposed project would also be consistent with the SPASP FBC energy conservation components and San Pablo Climate Action Plan. Therefore, the proposed project would be consistent with applicable plans related to renewable energy and energy efficiency, and no mitigation would be required.

2.6.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

[7] Abrams Associates Traffic Engineering, Inc. 2023. *Transportation Demand Management Plan, El Cerrito Apartments, City of El Cerrito.* January 16.

2.6.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and would be required to comply with existing regulations related to energy conservation. As such, the 2022 SEIR adequately evaluated the energy impacts of the proposed project and there would be no new impact associated with energy.

2.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

2.7.1 Discussion

The 2022 SEIR concluded that the geologic and soil impacts in the Plan Area are primarily related to potential ground shaking and associated impacts related to ground failure. Since the SPASP is not located within an Earthquake Fault Hazard Zone, the likelihood of surface fault rupture is minimal. In addition, the 2022 SEIR found that slope instability hazards are also minimal due to the absence of appreciable slopes in the Plan Area. Furthermore, the SPASP area is served by a comprehensive, integrated wastewater collection, treatment, and disposal system. Neither septic tank systems nor alternative wastewater disposal systems are proposed as part of the SPASP, including the proposed project.

The Hayward Fault is the nearest active fault to the Plan Area and is approximately 1.0 mile to the east. The Plan Area is susceptible to ground shaking from the Hayward Fault or one of the other active faults in the region. However, the 2022 SEIR determined that impacts related to ground shaking would be less than significant with compliance with the latest California Building Standards Code. The proposed project would be designed and constructed in accordance with these requirements.

The 2022 SEIR concluded that grading and construction activities within the SPASP area may result in minor erosion or the minor loss of some topsoil. However, implementation of City-required grading and construction-period erosion control techniques would mitigate potential geological impacts to a less-than-significant level.

The 2022 SEIR determined that implementation of the SPASP would have potentially significant impacts related to earthquake-induced on-site liquefaction, differential settlement, lateral spreading, and subsidence, and associated damage to project buildings and other improvements within the SPASP area. However, potential impacts would be reduced to less-than-significant levels with implementation of Mitigation Measure 8-1, which requires preparation and implementation of the recommended measures of a site-specific design-level geotechnical study for individual development projects.

The 2022 SEIR concluded that the potential impact of development within the Plan Area on paleontological resources would be less then significant with implementation of the recommended mitigation measures. Specifically disturbance of previously unknown paleontological resources could occur during grading and development of individual project sites within the SPASP area, and there is a reasonable possibility that paleontological resources could be uncovered during these activities (Impact 7-3). The 2022 SEIR identified Mitigation Measure 8-2 that would reduce the potential impacts on known or undisclosed paleontological resources to less-than-significant levels as it would project sponsors to be educated on the potential for paleontological resources and require specific procedures in the event paleontological resources are encountered.

2.7.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures, beyond implementation of 2022 SEIR Mitigation Measures 7-3 and 8-1, is required.

2.7.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and would be required to comply with the California Building Code, City-required erosion control techniques, and recommendations from the Geotechnical Investigation. As such, the 2022 SEIR adequately evaluated the potential geology and soil impacts of the proposed project there would be no new impact associated with geology and soils.

2.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

2.8.1 Discussion

Greenhouse gas emissions (GHGs) are present in the atmosphere naturally, and are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. However, over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global climate change. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF_6)

While GHGs produced by human activities include naturally-occurring GHGs such as CO_2, CH_4, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the atmosphere compared to those GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic

evaporation. For the purposes of this analysis, the term "GHGs" will refer collectively to the six gases identified in the bulleted list provided above.

As identified in the 2022 SEIR, the BAAQMD CEQA Air Quality Guidelines contain methodology and thresholds of significance for evaluating GHG emissions. The 2022 SEIR compares estimated emissions against an interpolated efficiency metric of 1.84 metric tons of carbon equivalent ($MTCO_2e$) per individual project per year. In addition, the 2022 SEIR determined that the SPASP would be consistent with various GHG reduction strategies, including the California Air Resources Board's 2017 Climate Change Scoping Plan, 2040 Plan Bay Area, the 2017 BAAQMD Clean Air Plan, and the cities of El Cerrito and Richmond's Climate Action Plans.

2.8.1.1 Construction Greenhouse Gas Emissions

For construction-related GHG emissions, the BAAQMD does not have an adopted threshold of significance. The BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable, including, but not limited to: using local building materials of at least 10 percent, and recycling or reusing at least 50 percent of construction waste or demolition materials. The 2022 California Green Building Standards Code (CALGreen) requires a diversion rate of at least 50 percent of construction waste or demolition materials. The proposed project would comply with the CALGreen code. In addition, implementation of 2022 SEIR Mitigation Measure 5-1 would reduce construction-related GHG emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment. Therefore, construction of the proposed project would not result in new or more severe impacts related to construction-period GHG emissions than identified in the 2022 SEIR.

2.8.1.2 Operational Greenhouse Gas Emissions

The 2022 SEIR found that 2040 full development capacity associated with development under the SPASP would have per capita emissions of 1.76 $MTCO_2e$ per year, which would not exceed the specific plan-level threshold of 1.84 MT CO_2e/year. Therefore, this impact was considered to be less than significant.

Long-term operation of the proposed project would generate GHG emissions from mobile, area, stationary, waste, and water sources as well as indirect emissions from sources associated with energy consumption. Mobile source GHG emissions would include project-generated vehicle trips to and from the project site. Area source emissions would be associated with activities such as landscaping and maintenance on the project site. Energy source emissions would be generated at off-site utility providers as a result of increased electricity demand generated by the proposed project. Waste source emissions generated by the proposed project include energy generated by land filling and other methods of disposal related to transporting and managing project generated waste. In addition, water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

The population and housing units included in the proposed project would fall within the total development anticipated by the 2022 SEIR, as identified in Section 2.14, Population and Housing. Therefore, the proposed project would not generate GHG emissions that would have a significant effect on the environment. In addition, because the proposed project would be consistent with the

2022 SEIR, it would not result in any new conflicts with the GHG reduction strategies listed above. Given the above, operation of the proposed project would not generate significant GHG emissions that would have a significant effect on the environment and would have a less-than-significant impact related to operational GHG emissions. Therefore, operation of the proposed project would not result in new or more severe GHG impacts than identified in the 2022 SEIR.

2.8.1.3 Consistency with Adopted Plans to Reduce Greenhouse Gas Emissions

In addition, the 2022 SEIR found that the SPASP would be subject to new requirements under rule making developed at the State and local level regarding GHG emissions. The SPASP would also be subject to local and General Plan policies, including the El Cerrito Climate Action Plan, that are expected to reduce GHG emissions. Therefore, this impact is considered less than significant.

The proposed project adheres to the building guidelines of the SPASP, is consistent with the El Cerrito Climate Action Plan, and promotes reductions in GHG emissions through mixed-use development in close proximity to transit. The proposed project would result in no new or more severe impacts related to GHG emissions than analyzed in the 2022 SEIR and further analysis is not required.

2.8.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures, beyond 2022 SEIR Mitigation Measure 5-1, are required.

2.8.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and would be required to comply with the 2022 California Green Building Standards Code and El Cerrito Climate Action Plan. As such, the 2022 SEIR adequately evaluated the potential GHG emissions impacts of the proposed project there would be no new impact associated with GHG emissions.

2.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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 2 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?	☐	☐	☐	☒

2.9.1 Discussion

The 2022 SEIR concluded that there are no significant impacts associated with hazards and hazardous materials within the SPASP Plan Area. The SPASP did identify the potential to expose construction workers to existing spilled, leaked, or otherwise discharged hazardous materials or wastes during project construction due to the large number of auto-related businesses in the SPASP area. However, the 2022 SEIR determined that compliance with all applicable, existing jurisdictional City-, regional-, and State-mandated site assessment, remediation, removal, and disposal requirements for soil, surface water, and/or groundwater contamination would ensure potential impacts are less than significant. Specifically, compliance with City, the Regional Water Quality Control Board (Water Board), and the California Department of Toxic Substances Control (DTSC) requirements would ensure that health and safety impacts associated with implementation of individual development projects are less than significant.

According to these requirements, the project sponsor would be required to investigate any potential soil or groundwater contamination at the site and ensure that the proposed project complies with existing regulations as a part of the building permit process. The project site is listed on the California State Water Resources Control Board's GeoTracker database as a closed leaking

underground storage tank (LUST) site. A closure letter stating that the project site was adequately remediated and no further action was required was issued on April 14, 1995.[8]

The nearest schools to the project site are the Balboa Head Start School located 0.3 miles south of the project site and Stege Elementary School approximately 0.35 miles west of the project site. Small quantities of commercially-available hazardous materials (i.e., paint, cleaning supplies) would be routinely used at the project site. However, the project sponsor would be required to comply with existing government regulations[9] in its use and disposal of these materials, and such materials would not be used in sufficient strength or quantity to create a substantial risk to schools within 0.25 miles.

The project site is located approximately 13 miles northwest of the nearest public airport, Oakland International Airport. As the project site is not located within the Oakland International Airport Influence Area, or any other airport influence area,[10,11] no safety hazards would be anticipated. No private airstrips are located in the project vicinity. In addition, the SPASP area, including the project site, is not within or adjacent to wildland area and would not be subject to wildland fire risks.

2.9.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.9.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and would be required to comply with existing regulations related to hazardous soil or groundwater conditions at the site during ground disturbing activities. As such, the 2022 SEIR adequately evaluated potential impacts related to hazards and hazardous materials at or affecting the proposed project site and there would be no new impact associated with hazards and hazardous materials.

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8 California Regional Water Quality Control Board. 1995. *Re: Underground Storage Tank Removal at 1711 East Shore Blvd, El Cerrito.* April 14.

9 The United States Environmental Protection Agency regulates "small-quantity generators" (SQGs) of hazardous wastes, which are defined as facilities that generate more than 100 kg (approximately 220 lbs), but less than 1,000 kg (2,200 lbs), of hazardous waste per month.

10 Alameda County Airport Land Use Commission, 2010. *Oakland International Airport, Airport Land Use Compatibility Plan, Figure 3-2*. September.

11 Contra Costa County Airport Land Use Commission, 2000. *Contra Costa County Airport Land Use Compatibility Plan*. December 13.

2.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☐	☒
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☒
i. Result in substantial 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 offsite;	☐	☐	☐	☒
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv. Impede or redirect flood flows?	☐	☐	☐	☒
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

2.10.1 Discussion

The 2022 SEIR determined that long-term water quality impacts associated with implementation of the SPASP could result in contamination of Plan Area stormwater runoff with petroleum and other contaminants from motor vehicles; however, compliance with the Regional Water Quality Control Board (Water Board) and jurisdictional City-required post-construction, non-point source pollution control measures would ensure that such impacts would be reduced to a less-than-significant level. In addition, the 2022 SEIR determined that compliance with applicable Water Board, City of El Cerrito, and City of Richmond water quality protection requirements and conditions would ensure any potential construction period and post-construction water quality impacts are reduced to a less-than-significant level.

In addition, construction projects are required to prepare a Stormwater Control Plan, which requires implementation of Best Management Practices (BMPs) to control stormwater peak flows and pollutant levels. This requirement is stipulated in Provision C.3 of Contra Costa County National Pollutant Discharge Elimination System (NPDES). All projects within the SPASP area must comply with NPDES requirements, including the proposed project. The sponsor submitted a Stormwater

Control Plan as part of the project application materials, and it is included in Appendix B.[12] The City will confirm that this plan conforms to all applicable local and State requirements as part of the development review process.

The proposed increase in population and traffic associated with the project could increase discharge of pollutants in stormwater runoff beyond current level after partial or full build-out of the SPASP. The proposed project would include low-impact development features including bio-filtration planters for stormwater treatment and discharge and bay-friendly landscaping that would use a selection of native and drought-tolerant plants. In addition, full compliance with the Contra Costa County NPDES permit guidelines for stormwater discharge would ensure impacts would be less than significant.

The 2022 SEIR identified that portions of the Plan Area in Richmond along Central Avenue are located within a 100-year flood zone. However, the project site is not located within this zone and would therefore not result in any impacts related to flooding. Furthermore, the SPASP area is also not subject to inundation by seiche or mudflow. The southwest portion of the Plan Area along Central Avenue in the City of Richmond is located near a Tsunami Inundation Zone; however, the project site is not located near this area.

2.10.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.10.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and would be required to comply with existing regulations related to stormwater discharge. As such, the 2022 SEIR adequately evaluated the hydrology and water quality impacts of the proposed project and here would be no new impact associated with hydrology and water quality.

[12] Belleci & Associates, Inc. 2022. *Storm Water Control Plan for El Cerrito Apartments, 1711 Eastshore Blvd, El Cerrito, CA*. March.

2.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

2.11.1 Discussion

The 2022 SEIR concluded that implementation of the SPASP would provide for the expansion of housing choices by encouraging compact, transit-accessible, pedestrian-oriented housing and mixed-use (commercial/housing) development in the Plan Area at densities and heights greater than currently permitted. Implementation of the SPASP would not result in the division of an established community because the area was primarily developed prior to completion of the SPASP. The 2022 SEIR determined that implementation of the SPASP would result in beneficial effects related to land use and planning by revitalizing the San Pablo Avenue corridor; facilitating development where services and infrastructure can be most efficiently provided by promoting higher residential densities near or within an existing shopping, service, employment, and public transportation centers; and promoting compact, transit-accessible, pedestrian-oriented, mixed-use development patterns and land uses.

The project site is designated TOHIMU in the City's General Plan and SPASP. In addition, the project site is also zoned as TOHIMU. The intent of the TOHIMU designation is to for a vibrant, walkable, transit-oriented higher density area within 0.5 miles of BART that allows a variety of uses including retail, commercial, residential, and public uses in the Downtown and Uptown areas. The TOHIMU designation allows for a 65-foot height limit (85 feet is permissible for affordable housing projects). The proposed project is consistent with the mix and intensity of development contemplated by the SPASP in this location. As noted in Section 2.1, Aesthetics, the proposed project would be subject to Tier II design review. These items would be further evaluated as part of Design Review and would not contribute to new environmental impacts not already identified and evaluated in the 2022 SEIR.

2.11.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.11.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and would be generally consistent with the development standards envisioned in the 2022 SEIR; therefore, the 2022 SEIR adequately evaluated the land use impacts of the proposed project and no new impacts related to land use and planning would result.

2.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

The City of El Cerrito General Plan does not identify mineral resources within the Specific Plan area. Therefore, the proposed project would have no new impacts on mineral resources.

2.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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 2 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?	☐	☐	☐	☒

2.13.1 Discussion

This section compares noise impacts from the proposed project with impacts identified in the 2022 SEIR. The proposed project would include residential uses in a developed area in the City of El Cerrito. Operational noise can be categorized as mobile source noise and stationary source noise. Mobile source noise would be attributable to the additional trips that would be a result of the proposed project. Stationary source noise includes noise generated by the residential land uses.

The Eastshore Boulevard Apartments Project Noise and Vibration Impact Evaluation (Noise Memorandum)[13] was conducted for the proposed project and is referenced in this section, and is included in Appendix C. The Noise Memorandum is intended to satisfy the City's requirement for a project-specific noise impact analysis, per 2022 SEIR Mitigation Measure 13-1, and examines the impacts of the proposed noise-sensitive uses on the project site together with the project design features and standard conditions. Future noise level impacts are based on the noise measurement data gathered at the project site to account for the impacts associated with the surrounding traffic and commercial uses.

The primary existing noise sources in the project area are transportation facilities. Traffic on San Pablo Avenue contributes to the ambient noise environment. In addition, operational noise from adjacent uses (e.g., nearby parking lot noise and pedestrians) is audible on the project site.

The Noise Memorandum presents the results of a long-term measurement gathered in March 2014 and September 2021 as part of the 2022 SEIR. The long-term noise measurement indicates that noise levels in the vicinity of the project site range from 57 to 76 dBA L_{eq}.

Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project site is located within the San Pablo Avenue corridor that is predominantly developed with commercial, retail uses and multi-family residential uses. The closest sensitive receptors include single-family residences located approximately 110 feet east of the project site and the Hotel Mira Vista Berkeley North approximately 140 feet east of the project site.

2.13.1.1 Noise and Land Use Compatibility

The 2022 SEIR found that residential land uses facilitated by the SPASP would be exposed to exterior noise levels exceeding 70 dBA L_{dn} from traffic and BART noise. Future noise levels would exceed both El Cerrito's and Richmond's noise and land use compatibility standards. This was identified as a potentially significant impact. The 2022 SEIR identified Mitigation Measure 13-1, which requires project-specific acoustical analyses, to reduce potential noise and land use compatibility impacts to a less-than-significant level.

The Noise Memorandum identified the dominant sources of noise in the project vicinity as traffic on San Pablo Avenue and I-80. Noise levels on the project site measured approximately 68 dBA L_{dn} at a distance of 100 feet from the San Pablo Avenue centerline and up to 75.8 dBA L_{dn} at a distance of 336 feet to the centerline of I-80. The proposed residences would be located a minimum of 160 feet from San Pablo Avenue and 130 feet from the centerline of I-80; therefore, when adjusted for distance, the proposed residences would be exposed to a noise level of approximately 71 dBA L_{dn} from San Pablo Avenue and 84 dBA L_{dn} from I-80.

The City sets forth normally acceptable noise level standards for land use compatibility and interior noise exposure of new development. The normally acceptable exterior noise level for residential units is 60 dBA L_{dn}. Noise levels of 60 to 75 dBA L_{dn} are considered conditionally acceptable when a

[13] MIG, Inc. 2023. *Eastshore Boulevard Apartments Project Noise and Vibration Impact Evaluation*. February 26.

detailed analysis of noise reduction requirements and noise insulation features are included in the design to meet the interior noise standard. The normally acceptable interior noise level for residential units is 45 dBA L_{dn} and the maximum instantaneous noise level should not exceed 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms.

Interior Noise Analysis. Based on the site plans for the proposed project, exterior noise levels would approach 71 dBA L_{dn} from San Pablo Avenue and 84 dBA L_{dn} from I-80 at the nearest building façades. Exterior-to-interior noise level reductions of 22 to 39 dB would be necessary to comply with the City's 45 dB L_{dn} interior noise level standard.

Additionally, the City applies an interior maximum noise level standard of 50 dBA L_{max} to bedrooms and 55 dBA L_{max} to other occupied rooms. Based upon a typical 25 dB noise level reduction and the predicted exterior noise level of 85 dBA L_{max}, maximum interior noise levels are predicted to be up to 55 dBA L_{max}. Therefore, consistent with Mitigation Measure 13-1 from the 2022 SEIR, interior noise reduction features as presented in the Noise Memorandum would be required to be incorporated as a part of the project in order to achieve compliance with the City's interior noise level standards.

Project-Specific Condition of Approval 2:

The following noise reduction features would be included for the residential facades facing and perpendicular to San Pablo Avenue:

- **Wall assembly.** Except as modified below, exterior walls shall consist of 7/8" stucco over 2 layers of water- resistant barrier, over ½ metal lath, over ½" sheathing, over 2x6 studs spaced 16 inches apart on center, over ½" gypsum board, with 3 ½" inch batt insulation (minimum R-13) installed in the wall cavity.

- **Provide mechanical ventilation.** The project will require forced air mechanical ventilation to permit occupancy of units with windows open or closed at the discretion of the occupants.

- **Window sound transmission class (STC) ratings.** To ensure exterior wall assemblies provide exterior to interior noise reductions needed that achieve daily noise exposure (45 dBA L_{dn}) and maximum instantaneous (50 dBA L_{max} in bedrooms / 55 dBA L_{max} in other rooms), window assemblies shall consist of:

    - North Building Section

        - Windows shall have an STC rating of 32 dBA or higher.

    - Central Building Section

        - Windows shall have an STC rating of 32 dBA or higher.

    - South Building Section

        - Dwelling units with any portion of their exterior façade within 140 feet of the centerline of I-80 shall incorporate windows with an STC rating of 36 dBA or higher.

    - All other dwelling units shall have an STC rating of 32 dBA or higher.

- **Window assemblies:** All window assemblies shall be well fitted, sealed, and weatherstripped. Window assemblies (perimeter of assembly, any gaps during assembly installation) shall be sealed with an acoustical caulk/sealant to reduce noise.

- **Enhanced Wall Assembly Construction.** To ensure exterior wall assemblies in the south building section provide exterior to interior noise reductions that achieve daily noise exposure (45 dBA L_{dn}) and maximum instantaneous (50 dBA L_{max} in bedrooms/55 dBA L_{max} in other rooms), the following enhanced wall assemblies shall be used for any 2nd to 6th floor exterior wall assemblies with all or part of the wall assembly within 140 feet of the centerline of I-80:

    - Studios with 1 exterior wall and apartment living rooms shall use 24-inch stud spacing, or incorporate the design measures listed below.

    - Corner studios with 2 exterior walls and apartment bedrooms shall:

        - Install fiberboard beneath the ½" exterior sheathing/stucco and ½" interior gypsum board; and

        - Studs shall be staggered/alternated in their attachment to exterior and interior wall panels; or

        - Metal channel studs shall be employed in wall construction.

Implementation of these project design features, as detailed in the project-specific condition of approval, would reduce potential operational noise impacts on future sensitive receptors to less-than-significant levels.

Exterior Noise Analysis. As identified above, exterior noise levels on the project site would be up to 80.9 dB L_{dn}, at a distance of 80 feet. The proposed project would include a roof deck outdoor area located 140 feet from the San Pablo Avenue centerline. As noted above, interior noise levels would meet the City's standards with implementation of the project-specific conditions for noise reduction outlined above. Therefore, consistent with the 2022 SEIR and General Plan Policy H3.1, exterior noise exposure levels would be conditionally acceptable.

2.13.1.2 Stationary Source Noise Impacts

The 2022 SEIR identified that stationary source noise impacts could occur from implementation of the SPASP where commercial uses are introduced adjacent to residential land uses. The proposed project would not include any commercial uses that could generate any stationary or other noise at noise-sensitive land uses. Additionally, as noted above, the closest noise-sensitive uses to the project site would be located more than 100 feet away. Therefore, the proposed project would not result in any new impacts related to stationary noise.

2.13.1.3 Mobile Source Noise Impacts

Motor vehicles with their distinctive noise characteristics are the dominant noise source in the project vicinity. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks), average traffic speed, and distance from the observer. Implementation of the proposed project would result in new daily trips on local roadways in the project site vicinity. A characteristic of sound is that a doubling of a noise source is required in order to result in a perceptible (3 dBA or greater) increase in the resulting noise level.

The 2022 SEIR found that cumulative traffic noise levels, with or without implementation of the SPASP, are not anticipated to increase substantially along the roadways serving the SPASP area, and the project's contribution to cumulative traffic noise level increases is calculated to be less than 1 dBA L_{dn}. Cumulative traffic noise increases would not be considered substantial, and the project would not make a cumulatively considerable contribution to increased noise levels. Therefore, this impact is considered less than significant.

Implementation of the proposed project would result in new daily trips on local roadways in the project site vicinity. However, because the proposed project would not include any off-street parking for residents and instead would use the proposed parking stalls for an on-demand car-sharing concept, the proposed project is not anticipated to generate a substantial number of peak hour or daily vehicle trips. Daily trips associated with the proposed project would not result in a doubling of traffic volumes along any roadway segment in the project vicinity, and therefore would not result in a perceptible increase in traffic noise levels at receptors in the project vicinity. This impact would remain less than significant as identified in the 2022 SEIR.

2.13.1.4 Construction Noise

The highest construction noise levels would be generated during grading and excavation, with lower noise levels occurring during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 76 to 90 dBA at a distance of 50 feet. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. Intervening structures or terrain would result in lower noise levels.

The 2022 SEIR identified that although construction noise would be localized to the individual site location, businesses and residences would be intermittently exposed to high levels of noise throughout the plan horizon. Construction activities would elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or higher. Such a large increase in noise levels, although short-term in duration, would be a potentially significant impact (Impact 13-3). The 2022 SEIR identified Mitigation Measure 13-3, but identified that construction noise impacts would remain significant and unavoidable. Mitigation Measure 13-3 requires the following:

- Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for the equipment.
- Utilize "quiet" models of air compressors and other stationary noise sources where technology exists.

- Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
- Prohibit unnecessary idling of internal combustion engines.
- Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
- Construct solid plywood fences around construction sites adjacent to operational business, residences, or noise-sensitive land uses.
- A temporary noise control blanket barrier could be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
- Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
- Ensure that construction activities (including the loading and unloading of materials and truck movements) are limited to the hours of 7:00 a.m. to 7:00 p.m. on weekdays and between the hours of 9:00 a.m. and 8:00 p.m. on weekends and holidays.
- Ensure that excavating, grading, and filling activities (including warming of equipment motors) are limited to between the hours of 7:00 a.m. to 7:00 p.m. on weekdays and between the hours of 9:00 a.m. and 8:00 p.m. on weekends and holidays.
- Businesses, residences, or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. Designate a "construction liaison" who would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

The Noise Memorandum assumed a typical maximum noise level of 85 dBA L_{max} at 50 feet during the noisiest construction phases. The Noise Memorandum identified that the nearest sensitive receptors to the project site are adjacent residences, located approximately 50 feet from the project site. Therefore, the closest off-site sensitive receptors may be subject to short-term construction noise reaching 85 dBA L_{max} when construction is occurring at the project site boundary. Construction is permitted by the City Monday through Friday between the hours of 7:00 a.m. and 6:00 p.m. and between the hours of 8:00 a.m. and 5:00 p.m. on Saturday. No construction activity is allowed on Sundays and holidays.

The proposed project would not result in any new or more significant construction-period noise impacts than were identified in the 2022 SEIR. The proposed project would require the implementation of the Municipal Code, the City of El Cerrito General Plan, and Mitigation Measure 13-3, as included in the 2022 SEIR.

2.13.1.5 Construction-Related Vibration

The 2022 SEIR identified that construction projects within the SPASP area may, in some cases, be located directly adjacent to existing structures, including weakened structures. Construction activities may include demolition of existing structures, site preparation work, excavation of below-grade levels, foundation work, pile driving, and new building erection. Demolition for an individual site may last several weeks and at times may produce substantial vibration. Excavation for underground levels would also occur on some project sites and vibratory pile driving could be used to stabilize the walls of the excavated area. Piles or drilled caissons may also be used to support building foundations.

Depending on the proximity of existing structures to each construction site, the structural soundness of the existing buildings, and the methods of construction used, vibration levels may be high enough to damage existing structures. Given the scope of the SPASP and the close proximity of many existing structures, ground-borne vibration impacts would be potentially significant.

As with any type of construction, vibration levels may at times be perceptible. However, construction phases that have the highest potential of producing vibration (pile driving and use of jackhammers and other high power tools) would be intermittent and would only occur for short periods of time for any individual project site. By use of administrative controls such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with least potential to affect nearby businesses, perceptible vibration can be kept to a minimum and would not result in a physical or perceived significant impact.

The 2022 SEIR found construction-related vibration impacts to be potentially significant (Impact 13-4). The 2022 SEIR identified Mitigation Measure 13-4 which would require the following:

- Avoid impact pile driving where possible. Drilled piles causes lower vibration levels where geological conditions permit their use.

- Avoid using vibratory rollers and tampers near sensitive areas.

- In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies shall be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following:

    - Identify sites that would include vibration compaction activities (such as pile driving) and have the potential to generate ground-borne vibration, and the sensitivity of nearby structures to ground-borne vibration. Vibration limits shall be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task.

    - Develop a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define

structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.

- Design construction contingencies that would be implemented when vibration levels approached the limits.
- At a minimum, conduct vibration monitoring during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.
- When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
- Conduct post-survey on structures under either of these circumstances: (a) when construction monitoring has indicated high vibration levels or (b) when complaints of damage have been made due to construction activities. Make appropriate repairs or compensation when damage has resulted from construction activities.

However, the SPASP EIR concluded that it may not be possible to avoid equipment such as vibratory rollers entirely during construction associated with the SPASP. Due to the density of development in the area, some of these activities may take place near sensitive areas. In these cases, it was determined that Mitigation Measure 13-4 may not be sufficient to reduce ground-borne vibrations below a level of significance. Therefore, this impact was considered to be significant and unavoidable.

Common sources of ground-borne vibration and noise include trains and construction activities such as blasting, pile driving and operating heavy earthmoving equipment. Construction of the proposed project would involve grading, site preparation, and construction activities but would not involve the use of construction equipment that would result in substantial ground-borne vibration or ground-borne noise on properties near to the project site. No pile driving, blasting, or significant grading activities are proposed. Based on the Noise Memorandum, construction vibration levels at a distance of 25 feet would not exceed the threshold for damage for modern structures of 0.5 inches per second peak particle velocity (PPV). In addition, as stated in the Noise Memorandum, the proposed project would comply with Mitigation Measure 13-4, although not required. Therefore, the proposed project would not result in any new or more significant construction-period vibration impacts than those identified in the 2022 SEIR.

2.13.1.6 Ground Vibration from BART Operations

The 2022 SEIR determined that future development under the SPASP would not expose persons to excessive vibration from BART operations. Consistent with the 2022 SEIR, this impact is considered less than significant.

Along the entire SPASP area, BART operates on an elevated platform. According to data in the FTA Transit Noise and Vibration Impact Assessment,[14] vibration levels resulting from BART would be well

[14] Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment*. May.

below the 72 VdB guidelines for Category 2 land uses near the footprint of the elevated structure. Therefore, this impact is considered less than significant.

The proposed project is located approximately 475 west of BART; therefore, the proposed project would not be exposed to significant groundborne vibration associated with BART and would not result in any new or more significant impacts than were described in the 2022 SEIR. In addition, implementation of SPASP policies would reduce potential groundborne vibration impacts on future or existing sensitive receptors to less-than-significant levels.

2.13.1.7 Aircraft Noise

The 2022 SEIR did not address potential aircraft noise impacts for the proposed project. The proposed project is not located within 2 miles of a public or public use airport. Oakland International Airport is the closest airport and is located approximately 13 miles south of the project site. Aircraft noise is occasionally audible at the project site; however, no portion of the project site lies within the 65 dBA CNEL noise contours of any public airport nor does any portion of the project site lie within 2 miles of any private airfield or heliport. Therefore, the proposed project would not result in the exposure of sensitive receptors to the excessive noise levels form aircraft noise sources.

2.13.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures, beyond implementation of 2022 SEIR Mitigation Measures 13-3 and 13-4 and Project-Specific Condition of Approval 3, are required.

2.13.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and construction activities would be required to comply with 2022 SEIR Mitigation Measure 13-3 and 13-4 and Project-Specific Condition of Approval 3. As such, the 2022 SEIR adequately evaluated the potential noise and vibration impacts of the proposed project there would be no new impacts.

2.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

2.14.1 Discussion

The 2022 SEIR evaluated potential environmental impacts that could be associated with approximately 343,112 net new square feet of commercial space, 3,206 units of residential development, and 7,213 new residents. The 2022 SEIR concluded that the population growth associated with the SPASP would not directly or indirectly induce substantial population growth beyond the SPASP boundaries. SPASP implementation would facilitate the projected residential and commercial growth within a transit-rich, mixed-use Plan Area for such growth in both local and regional plans and forecasts.

Table 2.I below shows the housing and population assumptions evaluated within the 2022 SEIR and also shows existing and proposed housing development within the Plan Area. As the population and housing units proposed by the project would fall within the total development anticipated by the 2022 SEIR, the proposed project would result in no new impacts associated with population and housing.

Table 2.C: Existing and Proposed Housing Units and Population Within the SPASP Area

	Evaluated Within the 2022 SEIR	Approved [c]	Proposed Project	Remaining Development Available
Housing Units	3,206[a]	1,571	315	,1,320
Population	6,700[a]	4,210[b]	844[b]	1,646

Source: City of El Cerrito (January 2023).

[a] El Cerrito, City of, 2022. Final San Pablo Avenue Specific Plan Update Supplemental EIR.

[b] Estimated population associated with approved units, under construction units, and the proposed project was determined by using an average of 2.68 persons per household, consistent with the 2022 SEIR.

[c] Land use assumption details identified by the City of El Cerrito San Pablo Avenue Corridor, Major Projects: Proposed, Approved, Under Construction, and Completed (as of 7/01/2022). Available online at: http://www.el-cerrito.org/DocumentCenter/View/7106/Development-Map_July_1_22?bidId=

2.14.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.14.3 Conclusion

The proposed project is consistent with the type of development analyzed within the 2022 SEIR and would be within the growth projections evaluated in the SPASP; therefore, the 2022 SEIR adequately evaluated the population and housing impacts of the proposed project and no new impacts would result.

2.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
Would the project:				
a. 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 public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

2.15.1 Discussion

The SPASP area is located within the West Contra Costa Unified School District (WCCUSD). The 2022 SEIR evaluated the impact that the SPASP's anticipated 3,206 new residences, and associated increase in expected student population, would have on the services and facilities operated by the WCCUSD. The 2022 SEIR concluded that the new residences would generate approximately 1,725 new students in WCCUSD schools over the approximately 20-year horizon of the SPASP implementation. The 2022 SEIR concluded that new students would be accommodated in existing schools, and plan implementation would not result in the need for new or expanded school facilities. As the population and housing units proposed by the project would fall within the total development anticipated by the 2022 SEIR (refer to Section 2.14, Population and Housing, above), the proposed project would also generate students allowed for and analyzed within the 2022 SEIR. As such, existing school facilities could accommodate the proposed project.

The 2022 SEIR concluded that the El Cerrito Fire Department and Richmond Fire Department would not need to expand fire protection facilities and personnel to accommodate additional demand associated with implementation of the SPASP. Specifically, the 2022 SEIR identified that any demand for additional fire protection personnel or equipment resulting from SPASP implementation would be funded by currently adopted public facility fees levied on the new development (in Richmond) and by the annual budget review and allocation (in El Cerrito). Given this, impacts to fire protection services are anticipated to be less than significant. As the population and housing units would fall within the total development anticipated by the 2022 SEIR, the project would result in no new impacts associated with fire services.

As noted in the 2022 SEIR, the increased demand associated with implementation of the SPASP would not require new or physically altered police protection facilities. The 2022 SEIR also determined that implementation of the SPASP would result in more "eyes-on-the-street" by facilitating a more pedestrian-friendly Plan Area which would provide a safer public environment. The SPASP identified police department approvals that would be required on a project-by-project basis that would ensure the department is equipped and has the ability to maintain acceptable levels of service. The City will coordinate with the police department for these approvals. In addition, the proposed project would fall within the total development anticipated by the 2022 SEIR and would not result in new impacts associated with police services.

The 2022 SEIR concluded that the combination of parks and recreation facilities meets the expected park requirements for the SPASP area given the anticipated population associated with implementation of the SPASP. As discussed in further detail in Section 2.16, Recreation, the 2022 SEIR concluded that the impacts to parks and recreation would be less than significant with compliance with plan provisions for new open spaces. The proposed project includes 6,060 square feet of public open space. In addition, the 2022 SEIR determined that implementation of the SPASP would not facilitate the need for new or physically altered government facilities.

2.15.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.15.3 Conclusion

The 2022 SEIR adequately evaluates public service impacts and the proposed project's impacts are included in and analyzed by the 2022 SEIR. Development of the proposed project would fall within the development assumptions evaluated within the 2022 SEIR. Therefore, the proposed project would have no new impact on public services.

2.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

2.16.1 Discussion

The 2022 SEIR concluded that the combination of parks and greenways within the SPASP area would meet the expected park requirements for the SPASP area given the anticipated population at full implementation of the SPASP. Specifically, implementation of the SPASP would generate 3,206 new residences and increase the local population by 6,700 people. The increase in residents in the area would increase the demand for parks and recreational facilities, reducing the City's level of service to 5.6 acres per 1,000 residents (below the current level of 7 acres per 1,000 residents) with no increase in acreage of parks or open spaces; however this ratio is above the level of service standard adopted under the City's General Plan.

As previously noted, the proposed project would include a total of 6,060 square feet of public open space on the project site including a public plaza at the intersection of Eastshore Boulevard and Peerless Avenue. As the population and housing units would fall within the total development anticipated by the 2022 SEIR, and the project would conform to SPASP open space standards, the project would result in no new impacts associated with parks and recreational facilities.

2.16.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.16.3 Conclusion

The 2022 SEIR adequately evaluated the environmental impacts associated with implementation of the SPASP, including parks and recreations impacts. Development of the proposed project would fall within the development assumptions evaluated within the 2022 SEIR. Therefore, the proposed project would have no new impact on parks and recreation.

2.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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 §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?	☐	☐	☐	☒

2.17.1 Discussion

This section compares traffic impacts from the proposed project with impacts identified in the 2022 SEIR.

Several roadway improvements were delineated in the SPASP project area. Modifications can include, but are not limited to, landscaped bulb-outs at intersections, improved crosswalks, and widening of the median to provide a five-foot pedestrian refuge. A Transportation Impact Fee (TIF) program was approved by the City of El Cerrito in December 2018 to fund the multi-modal improvements identified in the SPASP and to determine fair share payment by development projects facilitated by the SPASP for the identified improvements. The project is subject to the mandatory fair share contribution codified at El Cerrito Municipal Code Chapter 4.54 and which facilitates implementation of the multi-modal improvements identified by the SPASP. Additionally, the proposed project is subject to Assembly Bill (AB) 2097 which prohibits a public agency from imposing any minimum automobile parking requirements on residential projects within 0.5 miles of public transit stations.

2.17.1.1 Bicycle and Pedestrian Facilities

The 2022 SEIR determined that implementation of the SPASP would have a beneficial impact on bicycle and pedestrian facilities as it would include policies that would improve bicycle and pedestrian infrastructure throughout the Plan Area and would not include any changes that would hinder or eliminate existing or eliminated bikeways. As previously discussed, the proposed project would be consistent with the type and scale of development assumed for the project site in the 2022 SEIR and would not include any changes to the surrounding roadways that would either conflict with implementation of the SPASP or otherwise remove bicycle or pedestrian infrastructure. In addition, the proposed project would include a pedestrian plaza at the intersection of Eastshore Boulevard and Peerless Avenue that would increase pedestrian connectivity in the area. Therefore, the proposed project would not result in any new impacts related to bicycle and pedestrian facilities.

2.17.1.2 Transit Facilities

The 2022 SEIR determined that implementation of the SPASP would have a less-than-significant impact related to transit facilities as it would include goals and objectives to increase transit connectivity, such as installing bus platforms, and continue to support bus stop enhancements such as shelters, benches, wayfinding information, and bus bulbs. As previously discussed, the proposed project would be consistent with the type and scale of development assumed for the project site in the 2022 SEIR and would not include any changes to the surrounding transit infrastructure that would either conflict with implementation of the SPASP or otherwise hinder the construction of future transit infrastructure. Therefore, the proposed project would not result in any new impacts related to transit facilities.

2.17.1.3 VMT

The 2022 SEIR determined that projects located within a transit priority area (TPA)[15] can be presumed to have a less-than-significant impact as long as none of the following apply:

1. Has a Floor Area Ratio (FAR) of less than 0.75;

2. Includes more parking for use by residents, customers, or employees than required by the lead agency (if the agency allows but does not require the project to supply a certain amount of parking);

3. Is inconsistent with the applicable Sustainable Communities Strategy (SCS) (as determined by the lead agency, with input from the Metropolitan Transportation Commission [MTC]); or

4. Results in a net reduction in multi-family housing units.

The 2022 SEIR determined that all of the SPASP Plan Area is either within one-half mile of a BART station (including the proposed project) or within one-half mile of San Pablo Avenue, which is considered a high-quality transit corridor. The proposed project would have an FAR of 2.8 and would not exceed the maximum allowed parking spaces for the project. The 2022 SEIR determined that implementation of the SPASP would be consistent with Plan Bay Area, which is the applicable SCS. The proposed project would be consistent with the SPASP, and therefore would also be consistent with Plan Bay Area. The proposed project would add 315 residential units to the project site and would not include the removal of any units, and therefore would not result in a net reduction.

Based on the above, the proposed project would meet the VMT screening criteria as defined by the 2022 SEIR, and would not result in any new VMT impacts.

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[15] An area of proximity to a significant transit mode, defined as a one-half mile area around an existing major transit stop or an existing stop along a high-quality transit corridor. Public Resources Code, § 21064.3 defines major transit stop as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of 15 minutes or less during the morning and afternoon peak commute periods. Public Resources Code, § 21155 defines a 'high-quality transit corridor' as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

2.17.1.4 Design Features or Incompatible Uses and Emergency Access

Section 2.04.01.02 of the SPASP identifies Eastshore Avenue as a Gateway Street requiring a minimum clear sidewalk pathway of 6 feet for all land uses. Peerless Avenue is a private driveway and does not have a street designation within the SPASP. On-street parking is not allowed along the Peerless Avenue private driveway and new street trees would be located more than 20 feet from the driveway. In addition, this driveway would only be used for emergency access, and therefore sight distance would be adequate.

The driveway accessing the parking garage on Eastshore Avenue would provide adequate sight distance between vehicles entering and exiting the driveway, and pedestrians on the adjacent sidewalk. Vehicles parked adjacent to the Eastshore Avenue driveway may block sight distance between vehicles exiting the garage. Trees planted on both sides of the driveway may also affect visibility of exiting vehicles if the tree canopy is lower than 6 feet from the ground. To ensure that sight distance is adequate, the following project-specific conditions of approval shall be implemented.

Project-Specific Condition of Approval 3:

> Red curb parking restrictions shall be implemented within at least 10 feet of the project driveway to ensure safe sight distance for vehicles exiting the parking garage onto Eastshore Avenue.

Project-Specific Condition of Approval 4:

> Existing and proposed street trees adjacent to the project driveways shall be trimmed to provide at least 6 feet of clearance between the lowest branch and the ground at all times.

With implementation of the above recommended project-specific conditions of approval, impacts associated with sight distance would be less than significant.

2.17.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures beyond Project-Specific Conditions of Approval 3 and 4 are required.

2.17.3 Conclusion

The 2022 SEIR adequately evaluated the environmental impacts associated with implementation of the SPASP, including transportation impacts. Development of the proposed project would fall within the development assumptions evaluated within the 2022 SEIR. Therefore, with implementation of Project-Specific Conditions of Approval 3 and 4, the proposed project has no new impacts related to transportation.

2.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
Would the project:				
a. 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

2.18.1 Discussion

As previously discussed in Section 2.5, Cultural Resources, of this checklist, the 2022 SEIR determined that impacts to cultural and historic resources would be reduced to less-than-significant levels with implementation of Mitigation Measures 7-2. This finding applies to tribal cultural resources.

Pursuant to AB 52, the City contacted Native American tribes traditionally affiliated with the Plan Area on November 20, 2020. At the time the 2022 SEIR was certified, the City did not receive any requests for consultation from the tribes contacted. This document supports the finding that further CEQA review and public review is not required for this document, and therefore the City is not required to conduct formal consultation under AB 52 for this project. Therefore, this impact would be less than significant.

2.18.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.18.3 Conclusion

The 2022 SEIR adequately evaluated the potential cultural resources impacts (and by extension, impacts to tribal cultural resources) of the proposed project and no new impacts would result.

2.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or 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?	☐	☐	☐	☒

2.19.1 Discussion

The 2022 SEIR determined that there would be an increase in water demand as a result of build-out of the SPASP Update – average daily demand would be 339,000 gallons per day (gpd), which represents approximately 0.17 percent of the planning level water demand forecasted in the Urban Water Management Plan (UWMP). The 2022 SEIR concluded that this represents a small increase and is considered a less-than-significant impact on water supply. The 2022 SEIR also noted that development within the SPASP would incorporate the City's requirements for providing adequate water supply, including compliance with adopted performance standards, application of these standards in each jurisdictional City's development review process, coordination of development review with EBMUD (including consistency with the UWMP), and the requirement that new development pay its share of the costs associated with provision of water facilities through project-specific mitigations required as conditions of approval. The 2022 SEIR concluded that since future development facilitated by the SPASP, including the proposed project, would require about 0.17 percent of EBMUD's forecasted planning level water demand for its service area by the year 2040, and would be subject to EBMUD and jurisdictional City plans, regulations, and ordinances regarding water supply, the impact on water supply is considered less than significant.

The 2022 SEIR concluded that development associated with the SPASP would result in less-than significant impacts on utilities and service systems, including water supply, wastewater treatment,

stormwater drainage, and solid waste disposal. However, the 2022 SEIR determined that the water, wastewater, and storm drainage infrastructure systems would require improvements, including the upgrading of existing deficiencies, in order to accommodate new development facilitated by the SPASP. The 2022 SEIR provided recommendations and design considerations for proposed infrastructure improvements. The construction of the project-related utility infrastructure would be temporary and would occur within existing public rights-of-way, City property, a project development site, or private property subject to a municipal easement.

The Stege Sanitary District (SSD) provides wastewater service to businesses along San Pablo Avenue, including the proposed project site. Wastewater generated at the project site would be collected via a new 8-inch sewer line within Eastshore Boulevard. Per Section 7.3 of the SSD Ordinance Code, payment of a district-wide sewer connection/capacity charge and a SPASP-specific sewer connection/capacity charge to the SSD would be required. The connection/capacity charges would fund sewer capacity improvements needed to serve projected growth within the SPASP area.

The increase in commercial and residential density under the SPASP would result in an increase in the amount of solid waste generated within the SPASP area. The 2022 SEIR concluded that the increase in solid waste generation would be incremental but would not exceed acceptable rates established by plans, policies, and regulation. Moreover, the projected solid waste would be served by solid waste and recycling facilities with sufficient capacities to accommodate development included as part of the SPASP, including the proposed project. As such, solid waste impacts would remain less than significant.

2.19.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.19.3 Conclusion

The 2022 SEIR adequately evaluated the environmental impacts associated with implementation of the SPASP, including utilities and infrastructure impacts. Development of the proposed project would fall within the development assumptions evaluated within the 2022 SEIR. Therefore, the proposed project has no new impacts related to utilities and infrastructure.

2.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No New Impact
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?	☐	☐	☐	☒

2.20.1 Discussion

The 2022 SEIR determined that there were no Very High Fire Hazard Severity Zones within the SPASP. In addition, the project site is not located in or near any State responsibility areas. Therefore, the proposed project would not result in any new impacts related to wildfire hazards.

2.20.2 Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2022 SEIR was certified leading to new or more severe significant impacts, and no new mitigation measures are required.

2.20.3 Conclusion

The 2022 SEIR adequately evaluated the potential impacts related to hazards (and by extension, wildfire) of the proposed project and no new impacts would result.

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3.0 LIST OF PREPARERS

3.1 LSA

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APPENDIX A

AIR QUALITY AND HRA REPORT

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Memo

To: Kimberley Calica, AMG & Associates, LLC

CC: --

From: Phil Gleason and William Deeman

Date: February 3, 2023

SUBJECT: Air Quality and Construction Health Risk Assessment for the El Cerrito Eastshore Boulevard Apartments Project

MIG, Inc. (MIG) has prepared this memorandum at the request of AMG & Associates, LLC. This memorandum estimates the potential air quality emissions and health risks that could result from the proposed Eastshore Boulevard Apartments Project (proposed project), located at 1711-1755 Eastshore Boulevard in the City of El Cerrito, CA, and evaluates the project's emissions and health risks in the context of the City of El Cerrito San Pablo Avenue Specific Plan Update Supplemental Environmental Impact Report (SEIR), including mitigation measures contained in the SEIR. This memorandum also provides an analysis of the proposed project's potential air quality impacts, based on the checklist questions contained in Appendix G to the CEQA Guidelines, and the significance conclusions drawn for the Specific Plan Update in the SEIR.

As in more detail below, the proposed project would be within the scope of the San Pablo Avenue Specific Plan Update SEIR, no new effects are found, and no new mitigation measures would be required. Project construction would require the use of heavy-duty off-road construction equipment that meets United States Environmental Protection Agency / California Air Resources Board (U.S. EPA / CARB) Tier IV emissions standards in order to comply with SEIR Mitigation Measure 5-2. Project compliance with this level of emission control would result in the project being consistent with the nitrogen oxides (NOx) and particulate matter (PM) reductions required by SEIR Mitigation Measure 5-1 and reduce potential cancer health risks at sensitive receptors to level that are below the Bay Area Air Quality Management District (BAAQMD) cancer risk threshold of 10.0 excess cancer risks per million population, as required by Mitigation Measure 5-2. The proposed project also would not result in a new or potentially more severe air quality impact than identified inn the San Pablo Avenue Specific Plan Update SEIR.

PROJECT DESCRIPTION

The proposed project consists of the development of an approximately 219,622 square-foot, 310 dwelling unit apartment complex located at 1711-1755 Eastshore Boulevard, in the City of El Cerrito (Assessor Parcel Number 513-371-002). The proposed building would be constructed on the eastern and southern sides of the triangular-shaped property, around an existing approximately 50,905 square foot building that was formerly occupied by Outdoor Supply Hardware (OSH). The ground floor would consist of parking, amenities (exercise room), leasing office, mail room, trash enclosures and maintenance room. There would be five levels of apartment units above the ground level. Although the site is comprised of 3.87 acres, only approximately 1.82 acres would be disturbed and developed as part of the Project. Refer to Attachment 1 for the project site plan (AO Architects, 2022). Access to the site would be

provided via a driveway along the northern portion of the site (i.e., on Peerless Avenue) and along the southern portion of the site (i.e., on Eastshore Boulevard).

The site is bounded by I-80 to the west, Eastshore Boulevard to the east and south, and Peerless Avenue to the north. A building previously occupied by OSH, which is now vacated, is located between the project site and I-80. The El Cerrito Del Norte BART station is located approximately 0.1 miles northeast of the project site. The site is generally surrounded by commercial and residential land uses. Commercial land uses are located north of the project site across Peerless Avenue (e.g., Ross Dress for Less and IHOP), and east of the site across Eastshore Boulevard (e.g., NEK Insurance). Single-family residential land uses are also located to the east of the site between Eastshore Boulevard and San Pablo Avenue and to the west of the site across I-80. Additional commercial land uses are located to the east of the site, on the eastern side of San Pablo Avenue.

Construction of the proposed project is anticipated to begin in mid-2023 and last 24 months.

BACKGROUND

The proposed Project is located in the northern portion of El Cerrito and within the City's San Pablo Avenue Specific Plan that recently underwent an update to accommodate approximately 2,500 more dwelling units and approximately 100,000 square feet of commercial space. The additional growth proposed by the San Pablo Avenue Specific Plan Update was evaluated under CEQA through a SEIR that was certified by the El Cerrito City Council on December 6, 2022 (City of El Cerrito, 2022). The certified SEIR may be used as a tool under CEQA to support streamlining opportunities for future projects, such as the proposed Project. The SEIR contained two mitigation measures related to air quality, as summarized below, and presented in full as Attachment 2.

- **Mitigation Measure 5-1** requires that project developers and/or contractors demonstrate that the heavy-duty off-road vehicles that would be used during construction would, on average, be 20% and 45% more efficient than the average CARB fleet average in 2011 for NOx and particulate matter, respectively, and implement the BAAQMD-recommended basic mitigation measures to control fugitive dust emissions.
- **Mitigation Measure 5-2** requires that projects prepare a project-level construction health risk assessment to evaluate potential adverse health risks at sensitive receptor locations that could occur due to receptor exposure to construction exhaust emissions, including diesel particulate matter (DPM), a known toxic air contaminant (TAC).

CONSISTENCY WITH SEIR MITIGATION MEASURES

As described above, the San Pablo Avenue Specific Plan SEIR contained two mitigation measures to address the air quality emissions that could be generated by future projects being proposed within the Planning Area. The project applicant, AMG & Associates, has indicated that they would comply with all SEIR mitigation requirements, including the following provisions from Mitigation Measure 5-1:

- Implementing fugitive dust (PM_{10}) control measures,
- Providing clear signage at constructure sites indicating that diesel equipment idling shall be limited to five minutes or less,
- Utilizing temporary electrical service whenever possible to avoid the need to alternatively and independently powered equipment (e.g., compressors using a generator), and
- Tuning and maintaining all equipment in good working condition to reduce the emissions generated by equipment.

Mitigation Measures 5-1 and 5-2 also require, however, an evaluation of a proposed project's criteria air pollutant and TAC emissions, respectively. Therefore, the analysis contained below focuses on an evaluation of the project-specific construction emissions and health risks to satisfy the requirements of SEIR Mitigation Measure 5-1 and Mitigation Measure 5-2.

Consistency with SEIR Mitigation Measure 5-1: 20% and 45% Reduction in NOx and PM

The proposed project would involve constructing a new, approximately 310 dwelling unit, 219,622 square-foot apartment complex on 1.82 acres. Construction activities would generate equipment exhaust and dust emissions over the course of approximately 24 months from the use of heavy-duty off-road equipment during site preparation, grading, building construction, paving, and architectural coating activities, as well as worker and vendor vehicle trips. The proposed Project's potential construction emissions were modeled using CalEEMod (Version 2020.4.0). The construction phase and duration and the type and amount of equipment used during construction were generated using CalEEMod default assumptions, and modified as necessary to reflect the following project-specific context, information, and details:

- **Demolition Phase.** The demolition phase assumed by CalEEMod was removed, since the 1.82 acres on which the project would be located is undeveloped.
- **Construction Duration.** The overall duration of construction was increased to 24 months based on information provided by the applicant. Specifically, the building construction phase was increased to account for the additional duration over which construction activities are anticipated to occur.
- **Construction Equipment.** Diesel-powered generators were removed from the construction equipment list during the building construction phase, because the project site is located in a developed portion of the City with access to electrical utilities. Consistent with the requirements of SEIR Mitigation Measure 5-1, electrical service shall be used whenever possible. Since the site is well served by electrical infrastructure, it is not anticipated that alternatively and independently powered equipment (e.g., diesel generators) would be required. In addition, the daily runtime for welders during the building construction phase was reduced to account for the overall increase in the construction timeline, compared to CalEEMod default assumptions.
- **Fugitive Dust Control Measures.** Watering of the site twice per day was incorporated into the model consistent with the requirements of Mitigation Measure 5-1.

Construction emissions associated with the proposed project were estimated under two scenarios to satisfy the requirements of SEIR Mitigation Measure 5-1.

- **Scenario 1 (CARB 2011 Fleet-wide Average; 2011/2012).** Construction emission estimates for Scenario 1 reflect what the proposed project's potential construction emissions would have been, had the project been constructed in the Year 2011 using CARB's average-fleet characteristics for equipment operating in Contra Costa County.
- **Scenario 2 (U.S. EPA / CARB Tier II; 2023/2024).** Construction emission estimates for Scenario 2 reflect what the proposed project's potential construction emissions would be currently (i.e., construction starting in Year 2023). The project applicant has indicated that construction contractor for the project is currently unknown. Therefore, in order to ensure that whichever construction contractor is hired by the applicant, MIG evaluated the project's emissions for Scenario 2 utilizing emissions standards set by the U.S. EPA / CARB for heavy-duty off-road construction equipment with a rated power-output of 50 horsepower or greater. Specifically, MIG utilized the U.S. EPA / CARB Tier II emissions standards to evaluate the emissions from off-road construction equipment for the second scenario.

Table 1 below summarizes the differences in NOx and exhaust PM emissions from heavy-duty off-road construction equipment between the first and second scenarios.

Table 1: SEIR Mitigation Measure 5-1: NOx and Exhaust PM Comparison			
Scenario 1: CARB 2011 Fleet-wide Average Emissions			
Construction Year	**Emissions (Tons / Year)**		
	NOx	**Exhaust PM_{10}**	**Exhaust $PM_{2.5}$**
Year 1	1.81	0.12	0.11
Year 2	1.74	0.11	0.10
Scenario 2: U.S. EPA / CARB Tier II Emissions			
Construction Year	**Emissions (Tons / Year)**		
	NOx	**Exhaust PM_{10}**	**Exhaust $PM_{2.5}$**
Year 1	1.08	0.03	0.03
Year 2	1.05	0.03	0.03
Reduction in Emissions Between Scenario 1 and Scenario 2			
Construction Year	**Percent Reduction (%)**		
	NOx	**Exhaust PM_{10}**	**Exhaust $PM_{2.5}$**
Year 1	40.3%	70.7%	68.6%
Year 2	39.8%	70.7%	68.7%
Average	40.1%	70.7%	68.7%
MM 5-1 Reduction Requirements	**20.0%**	**45.0%**	**45.0%**
Reduction Achieved?	**Yes**	**Yes**	**Yes**
Source: MIG, 2023 (see Attachment 3)			

As shown in Table 1, NOx emissions for Scenario 2 would be approximately 40% less than emissions in Scenario 1, therefore meeting the SEIR's mitigation requirements that NOx emissions should be reduced by at least 20%. The PM_{10} and $PM_{2.5}$ emissions for Scenario 2 would be approximately 71% and 69% less than Scenario 1's emissions, therefore also meeting the SEIR's mitigation requirements of having at least a 45% reduction in particulate matter emissions.

As demonstrated above, the proposed project would satisfy the emission reduction requirements specified in SEIR Mitigation Measure 5-1 if all heavy-duty off-road construction equipment with a rated power-output of 50 horsepower or greater meets U.S. EPA / CARB Tier II emissions standards.

Consistency with SEIR Mitigation Measure 5-2: Construction Health Risk Results

As described in the consistency analysis above for SEIR Mitigation Measure 5-1, the heavy-duty off-road construction equipment used during project construction would be required to meet U.S. EPA / CARB Tier II emissions standards, at a minimum, in order to comply with the emission reduction requirements specified in Mitigation Measures 5-1. Therefore, the emissions from that emissions scenario (i.e., Scenario 2) were utilized as the baseline for assessing if the proposed project's emissions could result in adverse cancer and non-cancer health risks that would exceed applicable BAAQMD thresholds of significance.

As described in the project description, sensitive residential receptors are generally located west of the project site (i.e., across I-80) and east of the project site (i.e., between Eastshore

Boulevard and San Pablo Avenue). Project-related construction activities would $PM_{2.5}$ from equipment exhaust. Nearly all the project's $PM_{2.5}$ emissions from equipment exhaust would be DPM, a TAC. Accordingly, a construction health risk assessment (HRA) was prepared to assess potential risks associated with sensitive receptor exposure to DPM during project construction activities. The construction HRA evaluated DPM emissions associated with on- and off-road diesel fuel trucks and equipment. Gasoline-fuel vehicles emit various TACs in much smaller quantities and health toxicity compared to DPM. Thus, gasoline fueled emission sources were not included in the HRA.

As described under the SEIR Mitigation 5-1 consistency analysis, the proposed project would involve various construction phases lasting over an approximately 24-month period. The use of heavy-duty off-road construction equipment (e.g., bulldozers, excavators, etc.) and number of vendor deliveries per day, would be dependent on characteristics of the construction phase being undertaken at that time. Because of this, the mobile nature of the emissions sources (i.e., equipment would operate throughout the project site and not emit pollutants in the same location day after day), and the meteorological conditions present at the time pollutants are emitted, receptors in proximity of the project site would be exposed to varying concentrations of pollutants throughout the construction period.

Potential health risks associated with receptor exposure to DPM concentrations were assessed according to the recommendations contained in the BAAQMD's Recommended Methods for Screening and Modeling Local Risks and Hazards and Air Toxics New Source Review Program Health Risk Guidelines, as well as the Office of Environmental Health Hazard Assessment's (OEHHA's) Air Toxics Hot Spots Program Guidance Manual (OEHHA 2015; BAAQMD 2012, 2020). The DPM concentrations produced by the project during construction – as estimated using the air pollutant dispersion model, AERMOD, at a height of 1.5 meters above ground level (i.e., the approximate height of a receptor's mouth and nose) – were used to derive the individual excess cancer risk and non-carcinogenic health hazard index from potential exposure to DPM. Refer to Attachment 4 for detailed AERMOD modeling assumptions and health risk assessment methodology, Attachment 5 for AERMOD output files, and Attachment 6 for HRA calculations and DPM pollutant contour figures.

Individual Carcinogenic Risk from Exposure to Construction DPM

The predicted locations of the annual, unmitigated point of maximum impact (PMI) and the maximum exposed individual receptor (MEIR) for DPM exposure are shown in Attachment 6. The predicted point of maximum impact (PMI) is located immediately west of the project site, at the vacated OSH building. Since the PMI for DPM exposure is located on land that is not occupied by a receptor on a permanent basis, lifetime excess cancer risks and chronic non-cancer health hazards, which are based on exposure to annual average pollutant concentrations, were not estimated for the modeled PMI. Accordingly, health risks were assessed at the modeled maximum exposed individual receptor (MEIR) location. For both years, the MEIR for DPM exposure is located at a single-family residential building at 11471 San Pablo Avenue, in El Cerrito. The health risk assessment evaluated worst-case carcinogenic and non-carcinogenic risks to child (3rd trimester, 0-2 years, and 2-16 years) and adult (16-30 years and 30-70 years) receptors. Table 2 summarizes the results of the construction health risk assessment for the Scenario 2 assumptions including Tier II emissions standards for equipment engines with 50 horsepower or greater.

As shown in Table 2, the calculated risks at the MEIR under Scenario 2 are greatest for child receptors; in particular, infant receptors that are in their 3rd trimester and young children up to 2 years of age when construction activities are initiated. The proposed project's emissions under Scenario 2 would result in an incremental health risk increase of approximately 30.8 excess cancers per million at the MEIR location, which would exceed the BAAQMD threshold of 10.0

excess cancers per million. The magnitude of the project's predicted cancer risks at sensitive residential receptors is partially a function of the latest OEHHA- and BAAQMD-guidance on health risk assessments, which account for increased susceptibility from exposure to toxic air contaminants in early life stages, but primarily a function of the anticipated construction activities, equipment usage, and the receptor proximity to the proposed construction activities.

Although the project's emissions under Scenario 2 would fulfill the reductions requirement by SEIR Mitigation Measure 5-1, they would not fulfill requirements of SEIR Mitigation Measure 5-2 (i.e., reduce risks below BAAQMD thresholds). Therefore, another emissions scenario was prepared specifically for the purposes of addressing potential health risks, as described below.

- **Scenario 3 (U.S. EPA / CARB Tier IV; 2023/2024).** Construction emission estimates for Scenario 3 reflect what the proposed project's potential construction emissions would be currently (i.e., construction starting in Year 2023) if heavy-duty off-road construction equipment that meet U.S. EPA / CARB Tier IV emissions standards was utilized.

Table 2 summarizes the results of the construction health risk assessment under Scenario 3.

Table 2: Maximum Increased Cancer Risk from Project Construction DPM Emissions

Receptor Age Range	Health Risk Increase at MEIR(A) (Excess Cancer Risk per Million Population)	
	Scenario 2 (Tier II)	**Scenario 3 (Tier IV)**
Residential Child Receptor (3rd Trimester)	30.8	7.2
Residential Child Receptor (0-2 Years of Age)	29.6	6.9
Residential Child Receptor (2 -16 Years of Age)	3.9	0.9
Residential Adult Receptor (16 to 30 Years of Age)	0.6	0.1
Residential Adult Receptor (30 to 70 Years of Age)	0.5	0.1
BAAQMD Significance Threshold	10.0	10.0
Threshold Exceeded?	**Yes**	**No**

Source: MIG 2023
(A) MEIR is located at 559960.20 m E and 4197441.75 m N.

As shown in Table 2, potential excess cancer risk from exposure to construction activities at the MEIR location would be reduced to approximately 7.2 excess cancers per million population under emissions Scenario 3, which is less than the BAAQMD's threshold of 10.0 excess cancers per million.

Non-Carcinogenic Health Hazard from Exposure to DPM

The maximum annual average DPM concentration at any receptor location would be approximately 0.026 µg/m^3, which would occur at the MEIR associated with Year 1 construction activities under emission Scenario 3. Based on the chronic inhalation reference exposure level for DPM (5 µg/m^3), the calculated chronic hazard quotient during the maximum exposure to DPM concentration would be approximately 0.005, which is below the BAAQMD's non-cancer hazard index threshold value of 1.0.

Conclusion

As described above, the proposed project has been evaluated for consistency with SEIR Mitigation Measures 5-1 and 5-2. The project applicant has indicated that construction

contractor for the project is currently unknown. Therefore, the evaluation contained in this memorandum considered what level of emission control would be required in order to meet the performance standards required by SEIR mitigation measures. It was determined that a construction contractor utilizing all heavy-duty off-road equipment that meets U.S. EPA / CARB Tier II emission standards (Scenario 2) would be sufficient for reducing NOx and PM emissions to levels specified by SEIR Mitigation Measure 5-1. However, this level of emission control would not be sufficient to reduce cancer health risks below the BAAQMD threshold of 10.0 excess cancers per million, as required by SEIR Mitigation Measure 5-2. Therefore, additional emission controls were evaluated, and it was determined that the project's construction contractor would be required to use heavy-duty off-road equipment that meets U.S. EPA / CARB Tier IV emission standards (Scenario 3) to reduce cancer risks below BAAQMD thresholds. Equipment meeting U.S. EPA / CARB Tier IV emission controls would also satisfy the requirements of SEIR Mitigation Measure 5-1.[1]

SUPPORTING CEQA CHECKLIST DOCUMENTATION

The analysis contained in the section above demonstrates project consistency with requirements of SEIR Mitigation Measures 5-1 and 5-2. In addition to that analysis, this memorandum considers whether the air quality impacts of the proposed project have already been analyzed under the San Pablo Avenue Specific Plan Update SEIR. As described in more detail below, the proposed project is within the scope of the SEIR, no new effects are found, and no new mitigation measures would be required.

Conflict with or Obstruct Implementation of the Applicable Air Quality Plan

The SEIR determined that the San Pablo Avenue Specific Plan Update would not conflict with or obstruct implementation of the Bay Area Air Quality Management District (BAAQMD) 2017 Clean Air Plan (BAAQMD 2017a). The SEIR's determined that the San Pablo Avenue Specific Plan Update would not conflict with the 2017 Clean Air Plan, because it would:

1) Be consistent with (and not conflict or obstruct) Air Quality Plan control measures,
2) Not increase vehicle trips at a greater rate than its service population,
3) Not increase health risk disparities among bay area communities.

The SEIR for the San Pablo Avenue Specific Plan Update analyzed the development of up to approximately 2,500 more dwelling units and 100,000 square feet of commercial space than originally planned for the original Specific Plan. The operational criteria air pollutant emissions associated with this level of growth would not result in long-term operational emissions of criteria air pollutants, including PM and ozone precursors, that would have the ability to impede the attainment of air quality standards in the San Francisco Bay Area Air Basin.

The proposed project would involve the development of 310 units, which is well within the growth projections (i.e., population, vehicle trips, and VMT growth) analyzed in the SEIR. Since the proposed project would be consistent with the San Pablo Avenue Specific Plan, it would also be consistent with the 2017 Clean Air Plan.

The proposed project would not result in a new or potentially more severe significant air quality impact than identified in the San Pablo Avenue Specific Plan Update SEIR. This impact would remain less than significant.

[1] CARB / U.S. EPA Tier IV emission controls (Scenario 3) would reduce NOx, exhaust PM emissions by approximately 89% 94%, respectively, which would exceed the 20% and 45% reductions required by SEIR Mitigation Measure 5-1.

Cumulatively Considerable Net Increase in Criteria Air Pollutant Emissions

The proposed project would generate both short-term construction emissions and long-term operational emissions. As described below, the proposed project would be consistent with the significance findings of the SEIR.

Short-term Construction Emissions

Consistent with the findings of the 2014 EIR for the San Pablo Avenue Specific Plan, the SEIR for the San Pablo Avenue Specific Plan Update identified a potentially significant impact associated with construction dust and exhaust that could be generated by future projects occurring within the Plan Area. The 2014 EIR and 2022 SEIR identified Mitigation Measure 5-1, which requires projects to implement the BAAQMD's basic construction mitigation measures (to address fugitive dust emissions) and demonstrate a 20% and 45% in NOx and PM emissions, respectively, compared to a CARB fleet-wide average in 2011. The 2014 EIR and 2022 SEIR determined that the implementation of Mitigation Measure 5-1 would reduce construction criteria air pollutant emissions to less than significant. As described under the "Consistency with SEIR Mitigation Measures" heading, the proposed project's construction emissions, which were estimated using CalEEMod Version 2020.4.0, would be consistent with the requirements of Mitigation Measure 5-1 based on all construction equipment meeting U.S. EPA / CARB Tier IV emission standards.

In addition to analyzing the proposed project's construction emissions for consistency with Mitigation Measure 5-1, this analysis also includes a comparison of the proposed project's construction criteria air pollutant emissions (Scenario 3: U.S. EPA / CARB Tier IV equipment) against applicable BAAQMD's project-level thresholds, as shown in Table 3.

Table 3: **Average Daily Regional Construction Emissions**

Year	Pollutant Emissions (Average Pounds per Day)(A)						
	ROG	NO_X	CO	PM_{10}		$PM_{2.5}$	
				Dust(B)	Exhaust	Dust(B)	Exhaust
2023	1.3	8.3	11.3	2.3	0.1	0.6	0.1
2024	10.7	3.7	11.3	2.2	0.1	0.6	0.1
BAAQMD CEQA Threshold	**54**	**54**	**--**	**BMPs**	**82**	**BMPs**	**82**
Potentially Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**	**No**

Source: MIG, 2023 (see Attachment 3) and BAAQMD, 2017b.
(A) Average daily emissions assume 264 total active construction days (22 construction days per month for 12 months.
(B) Fugitive dust emissions estimates reflect compliance with the BAAQMD's eight basic construction best management practices (BMPs) to control fugitive dust from construction activities as required by SEIR Mitigation Measure 5-1.

As shown in Table 3, the proposed project would not exceed the BAAQMD regional criteria air pollutant thresholds for construction emissions.

The proposed project's emissions, as evaluated under Scenario 3 (U.S. EPA / CARB Tier IV Equipment) conditions, would meet the NOx and PM reductions required by SEIR Mitigation Measure 5-1. In addition, the proposed project's construction criteria air pollutants would not exceed applicable BAAQMD thresholds. The proposed project's construction criteria air pollutants would be less than significant, which is consistent with the findings of the SEIR.

Therefore, the project would not result in a new or potentially more severe significant air quality impact than identified in the San Pablo Avenue Specific Plan Update SEIR. This impact would remain less than significant.

Long-term Operational Emissions

As described under "Conflict with or Obstruct Implementation of the Applicable Air Quality Plan," the San Pablo Avenue Specific Plan Update SEIR determined that the growth proposed by Specific Plan Update would be consistent with (and not obstruct or hinder the implementation) of the 2017 Clean Air Plan's control measures, would not increase vehicle trips at a greater rate than service population, and would not increase health risk disparities among bay area communities. The growth proposed by a planning document would not have the potential to generate long-term operational criteria air pollutant emissions that could impede the attainment of air quality standards in the San Francisco Bay Area Air Basin if it meets these criteria. The proposed project, which is within the growth projections of the San Pablo Avenue Specific Plan Update, would also not have the potential to generate long-term operational criteria air pollutant emissions that could impede the attainment of air quality standards, because potential operational impacts associated with this growth were already analyzed in the San Pablo Avenue Specific Plan Update SEIR and determined to be less than significant.

The proposed project would not result in a new or potentially more severe significant air quality impact than identified in the San Pablo Avenue Specific Plan Update SEIR. This impact would remain less than significant.

Expose Sensitive Receptors to Substantial Pollutant Concentrations

As described in the San Pablo Avenue Specific Plan Update SEIR:

> "… the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." As such, an evaluation of the environment's effect on future residents and employees proposed by the Specific Plan Update is no longer required under CEQA, and Mitigation Measure 5-3, as identified in the 2014 Certified EIR is no longer applicable" (City of El Cerrito 2022; pg. 5-13)

Therefore, the analysis contained in this memorandum focuses on how the proposed project could affect the environment. A construction health risk assessment was prepared for the project and is presented previously under "Consistency with SEIR Mitigation Measure 5-2: Construction Health Risk Results." As demonstrated in that analysis, the proposed project would not result in cancer risk increases that exceed the BAAQMD threshold of 10.0 excess cancers per million population under the scenario (Scenario 3) where all heavy-duty off-road construction equipment with a rated power-output of 50 horsepower or greater meets U.S. EPA / CARB Tier IV emissions standards. Project use of U.S. EPA / CARB Tier IV equipment demonstrates consistency with the requirements of SEIR Mitigation Measure 5-2 and would result in less-than-significant health risk impacts to sensitive receptors. This impact would be less than significant.

The proposed project would not result in a new or potentially more severe significant air quality impact than identified in the San Pablo Avenue Specific Plan Update SEIR. This impact would remain less than significant.

Other Emissions such as Odors

The San Pablo Avenue Specific Plan Update SEIR determined that the growth accommodated by the Specific Plan Update could allow for the development of uses that have the potential to produce odorous emissions (odors) either during the construction or operation of future development; however, the types of land uses proposed (i.e., residential and commercial) typically

generate odors that are typical of urbanized areas and are generally not considered objectionable, such as those produced for industrial operations (e.g., landfills, wastewater treatment plants, etc.). The Specific Plan also includes policies to address potentially odorous emissions from the land uses analyzed in the

The proposed project would consist of residential development, which is a land use that was considered in the SEIR's analysis of potential impacts. The proposed project would not be a new source of odors that could have a potentially significant impact on the environment. This impact would be less than significant.

The proposed project would not result in a new or potentially more severe significant air quality impact than identified in the San Pablo Avenue Specific Plan Update SEIR. This impact would remain less than significant.

CONCLUSION

As described in this memorandum, the proposed project would be within the scope of the San Pablo Avenue Specific Plan Update SEIR, no new effects are found, and no new mitigation measures would be required.

The proposed project, therefore, would not result in substantial adverse air quality-related effect on the environment.

REFERENCES

The following references were used to prepare this memorandum:

AO Architects. 2022. *El Cerrito Apartments June 1, 2022 Design Review Submittal*.

Bay Area Air Quality Management District (BAAQMD). 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards. May 2012. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

_____2017a. *Clean Air Plan: Spare the Air, Cool the Climate*. BAAQMD, Planning, Rules, and Research Division. April 19, 2017.

_____2017b. *California Environmental Quality Act Air Quality Guidelines*. San Francisco, CA. June 2010, updated May 2017.

_____2020. BAAQMD Health Risk Assessment Modeling Protocol. December 2020.

City of El Cerrito. 2022. *San Pablo Avenue Specific Plan Update (2022) Supplemental Environmental Impact Report.* July 2022. SCH #2014042025.

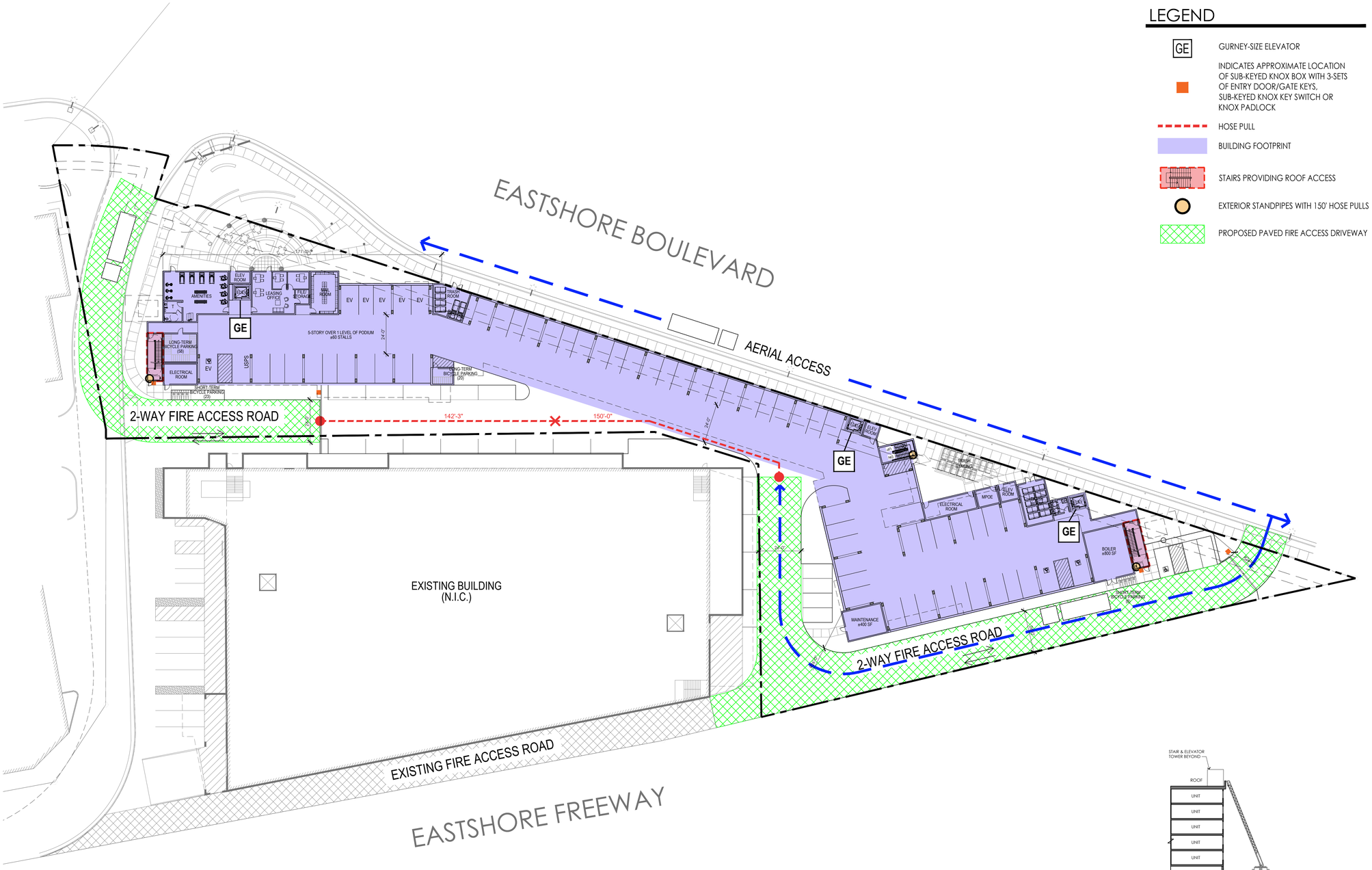
Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Guidance Manual. February 2015. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

PG / WD

Attachment 1

AO Architects Conceptual Site Plan (June 1, 2022)

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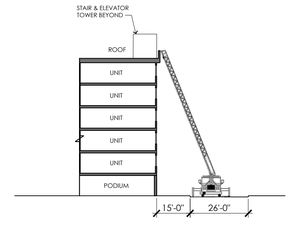


LEGEND

- GE — GURNEY-SIZE ELEVATOR
- INDICATES APPROXIMATE LOCATION OF SUB-KEYED KNOX BOX WITH 3-SETS OF ENTRY DOOR/GATE KEYS, SUB-KEYED KNOX KEY SWITCH OR KNOX PADLOCK
- HOSE PULL
- BUILDING FOOTPRINT
- STAIRS PROVIDING ROOF ACCESS
- EXTERIOR STANDPIPES WITH 150' HOSE PULLS
- PROPOSED PAVED FIRE ACCESS DRIVEWAY

NOTES

1. BUILDING CONSTRUCTION SHALL MEET CURRENT BUILDING, CALIFORNIA FIRE CODES, AND THE EL CERRITO FIRE CODE.
2. EMERGENCY VEHICLE ACCESS (EVA) ROADS SHALL BE A MINIMUM OF 26 FEET IN WIDTH AND 13 FEET 6 INCHES OF UNOBSTRUCTED VERTICAL CLEARANCE WITH AN ALL-WEATHER DRIVING SURFACE THAT CAN SUPPORT A MINIMUM OF 75,000 POUNDS.
3. WHERE A FIRE HYDRANT IS REQUIRED AND LOCATED ON AN EVA THE MINIMUM WIDTH SHALL BE 26 FEET, EXCLUSIVE OF SHOULDERS.
4. WHERE THE VERTICAL DISTANCE BETWEEN GRADE PLANE AND THE HIGHEST ROOF SURFACE EXCEEDS 30 FEET AN APPROVED AERIAL FIRE APPARATUS ACCESS ROAD SHALL BE PROVIDED.
5. AERIAL FIRE APPARATUS ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 26 FEET, EXCLUSIVE OF SHOULDERS, IN THE IMMEDIATE VICINITY OF THE BUILDING OF PORTION THEREOF.
6. AT LEAST ONE REQUIRED ACCESS ROUTE MEETING THE AERIAL ACCESS ROADS REQUIREMENTS SHALL BE LOCATED WITHIN A MINIMUM OF 15 FEET AND A MAXIMUM OF 30 FEET FROM THE BUILDING, AND SHALL BE POSITIONED PARALLEL TO ONE ENTIRE SIDE OF THE BUILDING.
7. IF GATES ARE INSTALLED ACROSS EVA ROADS, GATES SHALL BE OPERABLE BY THE USE OF A KNOX KEY.
8. A "KNOX BOX" SHALL BE INSTALLED WITH KEYS FOR ALL COMMON AREAS TO BE INSTALLED AT ALL PRIMARY ACCESS POINT UTILIZED BY THE FIRE DEPARTMENT
9. FIRE FDC'S SHALL BE IN LOCATIONS ACCEPTABLE FOR FIRE DEPARTMENT FOR EMERGENCY OPERATIONS.
10. FIRE FDC'S SHALL BE INTERCONNECTED WITH FIRE SPRINKLERS AND STANDPIPES.
11. STANDPIPES SHALL BE WET.
12. STANDPIPES SHALL EXTEND TO THE ROOF.
13. FIRE DEPARTMENT VALVE CONNECTIONS SHALL BE IN THE INTERMEDIATE LANDINGS OF STAIRWELLS.
14. INTERIOR HOSE PULLS SHALL NOT EXCEED 150 FEET TO ALL PORTIONS OF THE INTERIOR OF THE BUILDING.
15. SMOKE & HEAT VENTS SHALL BE INSTALLED ON ROOF ABOVE EACH STAIRWELL.
16. SMOKE & HEAT VENTS SHALL BE EQUIPPED WITH FUSIBLE LINK.
17. SMOKE & HEAT VENTS SHALL BE EQUIPPED WITH MANUAL RELEASE FOR EMERGENCY OPERATIONS.
18. CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF AND ADJACENT TO SLEEPING AREAS WHERE FUEL-BURNING APPLIANCES ARE INSTALLED.
19. CARBON MONOXIDE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 720.
20. CARBON MONOXIDE ALARMS SHALL BE120 V POWERED WITH BATTERY BACKUP AND BE INTERCONNECTED WITH THE SMOKE DETECTORS.
21. ALL ELECTRICAL BREAKERS SHALL BE LABELED.
22. ELECTRICAL EQUIPMENT ROOMS SHALL BE IDENTIFIED ON DOOR LEADING TO ROOM.
23. APPROVED NUMBERS OR ADDRESS SHALL BE PROVIDED IN SUCH A POSITION TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET FRONTING THE PROPERTY.
24. ADDRESS SHALL BE EITHER INTERNALLY OR EXTERNALLY ILLUMINATED.
25. EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED.
26. EMERGENCY ELECTRICAL SYSTEM TO AUTOMATICALLY ILLUMINATE MEANS OF EGRESS.
27. EMERGENCY EGRESS SIGNS SHALL BE POSTED INDICATING EXIT PATH.
28. BRAILLE OR TACTILE EXIT ROUTE AND EXIT SIGNS SHALL BE POSTED FOR ADA COMPLIANCE.
29. EMERGENCY EGRESS PLANS SHALL BE DEVELOPED.
30. FLOOR LEVEL SIGNS SHALL BE REQUIRED ON EACH FLOOR
31. RADIO FREQUENCY SIGNAL STRENGTH ANALYSIS SHALL BE CONDUCTED THROUGHOUT THE BUILDING.
32. IF RADIO SIGNAL STRENGTH DEFICIENCIES ARE IDENTIFIED, SIGNAL BOOSTERS SHALL BE INSTALLED TO ACHIEVE ADEQUATE SIGNAL STRENGTH AND BOOSTERS SHALL BE MAINTAINED.



NORTH

1"=30'-0" 0 15' 30' 60' 90'

CONCEPTUAL FIRE PLAN - SITE PLAN

A2.1

EL CERRITO APARTMENTS

EL CERRITO, CA

DATE: 06-01-2022
JOB NO.: 2017-694

AMG & ASSOCIATES

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

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Attachment 2

San Pablo Avenue Specific Plan Update SEIR: Mitigation Measures 5-1 and 5-2

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Mitigation 5-1. Implement the following BAAQMD-recommended measures to control particulate matter emissions during construction. These measures would reduce diesel particulate matter and PM10 from construction to ensure that short-term health impacts to nearby sensitive receptors are avoided or reduced:

Dust (PM10) Control Measures:

- Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
- Cover all hauling trucks or maintain at least two feet of freeboard.
- Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
- Limit traffic speeds on any unpaved roads to 5 mph.
- Replant vegetation in disturbed areas as quickly as possible.
- Suspend construction activities that cause visible dust plumes to extend beyond the construction site.
- Post a publicly visible sign(s) with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Additional measures to Reduce Diesel Particulate Matter and PM2.5 and other construction emissions:

- The developer or contractor shall provide a plan for approval by the City or BAAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOX reduction and 45 percent particulate reduction compared to the most recent CARB fleet average for the year 2011.
- Clear signage at all construction sites shall be posted indicating that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were on-site or adjacent to the construction site.
- The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).
- Properly tune and maintain equipment for low emissions.

Mitigation 5-2. Require project-level construction health risk assessment. Construction health risk assessment shall be required on a project-by-project basis, either through screening or refined modeling, to identify impacts and, if necessary, include performance standards and industry-recognized measures to

reduce exposure. Reduction in health risk can be accomplished through, though is not limited to, the following measures:

- Construction equipment selection;
- Use of alternative fuels and engine retrofits;
- Modified construction schedule; and
- Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.

Attachment 3

CalEEMod Project File Outputs

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Eastshore Blvd Apartments (2011 Run) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Eastshore Blvd Apartments (2011 Run)

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	37.86	1000sqft	0.87	37,862.00	0
Parking Lot	0.95	Acre	0.95	41,382.00	0
Apartments Mid Rise	310.00	Dwelling Unit	0.00	181,760.00	887

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2013
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG modeler William Deeman

Land Use - Updated lot acreage and square footage based on site plan received 6/1/2022

Construction Phase - Updated construction phase schedule based on data request response received 1/13/23 - 24 month construction schedule

Off-road Equipment - Updated Building Construction equipment/hours: Generator removed from Building Construction phase; site is developed and served by existing electrical infrastructure. Welders reduced to reflect elongated construction timeline compared to CalEEMod defaults.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	200.00	495.00
tblConstructionPhase	PhaseEndDate	1/28/2011	12/31/2010
tblConstructionPhase	PhaseEndDate	2/1/2011	1/4/2011

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseEndDate	2/7/2011	1/10/2011
tblConstructionPhase	PhaseEndDate	11/14/2011	12/3/2012
tblConstructionPhase	PhaseEndDate	11/28/2011	12/17/2012
tblConstructionPhase	PhaseEndDate	12/12/2011	12/31/2012
tblConstructionPhase	PhaseStartDate	1/29/2011	1/1/2011
tblConstructionPhase	PhaseStartDate	2/2/2011	1/5/2011
tblConstructionPhase	PhaseStartDate	2/8/2011	1/11/2011
tblConstructionPhase	PhaseStartDate	11/15/2011	12/4/2012
tblConstructionPhase	PhaseStartDate	11/29/2011	12/18/2012
tblLandUse	LandUseSquareFeet	37,860.00	37,862.00
tblLandUse	LandUseSquareFeet	310,000.00	181,760.00
tblLandUse	LotAcreage	8.16	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00

2.0 Emissions Summary

Eastshore Blvd Apartments (2011 Run) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.6315	3.3545	4.0740	5.7000e-003	0.3169	0.1666	0.4835	0.0896	0.1567	0.2463	0.0000	531.0311	531.0311	0.0665	0.0398	544.5428
2012	1.8725	3.0999	3.6624	5.4300e-003	0.2837	0.1564	0.4400	0.0763	0.1470	0.2233	0.0000	505.6624	505.6624	0.0613	0.0364	518.0553
Maximum	**1.8725**	**3.3545**	**4.0740**	**5.7000e-003**	**0.3169**	**0.1666**	**0.4835**	**0.0896**	**0.1567**	**0.2463**	**0.0000**	**531.0311**	**531.0311**	**0.0665**	**0.0398**	**544.5428**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.6315	3.3545	4.0740	5.7000e-003	0.3057	0.1666	0.4723	0.0842	0.1567	0.2408	0.0000	531.0310	531.0310	0.0665	0.0398	544.5427
2012	1.8725	3.0999	3.6624	5.4300e-003	0.2837	0.1564	0.4400	0.0763	0.1470	0.2233	0.0000	505.6623	505.6623	0.0613	0.0364	518.0551
Maximum	**1.8725**	**3.3545**	**4.0740**	**5.7000e-003**	**0.3057**	**0.1666**	**0.4723**	**0.0842**	**0.1567**	**0.2408**	**0.0000**	**531.0310**	**531.0310**	**0.0665**	**0.0398**	**544.5427**

Eastshore Blvd Apartments (2011 Run) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**1.87**	**0.00**	**1.22**	**3.27**	**0.00**	**1.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2011**	**3-31-2011**	0.9982	0.9982
2	**4-1-2011**	**6-30-2011**	0.9835	0.9835
3	**7-1-2011**	**9-30-2011**	0.9943	0.9943
4	**10-1-2011**	**12-31-2011**	1.0268	1.0268
5	**1-1-2012**	**3-31-2012**	0.9764	0.9764
6	**4-1-2012**	**6-30-2012**	0.9473	0.9473
7	**7-1-2012**	**9-30-2012**	0.9577	0.9577
		Highest	1.0268	1.0268

Eastshore Blvd Apartments (2011 Run) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6389	0.0448	3.3580	2.0800e-003		0.1533	0.1533		0.1533	0.1533	14.1328	9.5657	23.6985	0.0268	9.3000e-004	24.6455
Energy	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	271.5383	271.5383	0.0240	5.1500e-003	273.6722
Mobile	1.4662	2.4740	14.3107	0.0170	1.3697	0.0398	1.4095	0.3658	0.0377	0.4036	0.0000	1,565.4644	1,565.4644	0.1651	0.1108	1,602.5980
Waste						0.0000	0.0000		0.0000	0.0000	28.9465	0.0000	28.9465	1.7107	0.0000	71.7138
Water						0.0000	0.0000		0.0000	0.0000	6.4078	14.2354	20.6432	0.6605	0.0158	41.8686
Total	**3.1192**	**2.6393**	**17.7200**	**0.0199**	**1.3697**	**0.2028**	**1.5726**	**0.3658**	**0.2008**	**0.5666**	**49.4871**	**1,860.8037**	**1,910.2909**	**2.5871**	**0.1327**	**2,014.4981**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6389	0.0448	3.3580	2.0800e-003		0.1533	0.1533		0.1533	0.1533	14.1328	9.5657	23.6985	0.0268	9.3000e-004	24.6455
Energy	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	271.5383	271.5383	0.0240	5.1500e-003	273.6722
Mobile	1.4662	2.4740	14.3107	0.0170	1.3697	0.0398	1.4095	0.3658	0.0377	0.4036	0.0000	1,565.4644	1,565.4644	0.1651	0.1108	1,602.5980
Waste						0.0000	0.0000		0.0000	0.0000	28.9465	0.0000	28.9465	1.7107	0.0000	71.7138
Water						0.0000	0.0000		0.0000	0.0000	6.4078	14.2354	20.6432	0.6605	0.0158	41.8686
Total	**3.1192**	**2.6393**	**17.7200**	**0.0199**	**1.3697**	**0.2028**	**1.5726**	**0.3658**	**0.2008**	**0.5666**	**49.4871**	**1,860.8037**	**1,910.2909**	**2.5871**	**0.1327**	**2,014.4981**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2011	12/31/2010	5	0	
2	Site Preparation	Site Preparation	1/1/2011	1/4/2011	5	2	
3	Grading	Grading	1/5/2011	1/10/2011	5	4	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	1/11/2011	12/3/2012	5	495	
5	Paving	Paving	12/4/2012	12/17/2012	5	10	
6	Architectural Coating	Architectural Coating	12/18/2012	12/31/2012	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.82

Residential Indoor: 368,064; Residential Outdoor: 122,688; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,755 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	2.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	256.00	46.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-003	0.0242	8.4900e-003	2.0000e-005		1.1600e-003	1.1600e-003		1.0700e-003	1.0700e-003	0.0000	1.6825	1.6825	4.9000e-004	0.0000	1.6947
Total	**2.0000e-003**	**0.0242**	**8.4900e-003**	**2.0000e-005**	**6.2700e-003**	**1.1600e-003**	**7.4300e-003**	**3.0000e-003**	**1.0700e-003**	**4.0700e-003**	**0.0000**	**1.6825**	**1.6825**	**4.9000e-004**	**0.0000**	**1.6947**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	8.0000e-005	6.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0661	0.0661	1.0000e-005	0.0000	0.0676
Total	**7.0000e-005**	**8.0000e-005**	**6.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0661**	**0.0661**	**1.0000e-005**	**0.0000**	**0.0676**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-003	0.0242	8.4900e-003	2.0000e-005		1.1600e-003	1.1600e-003		1.0700e-003	1.0700e-003	0.0000	1.6825	1.6825	4.9000e-004	0.0000	1.6947
Total	**2.0000e-003**	**0.0242**	**8.4900e-003**	**2.0000e-005**	**2.8200e-003**	**1.1600e-003**	**3.9800e-003**	**1.3500e-003**	**1.0700e-003**	**2.4200e-003**	**0.0000**	**1.6825**	**1.6825**	**4.9000e-004**	**0.0000**	**1.6947**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	8.0000e-005	6.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0661	0.0661	1.0000e-005	0.0000	0.0676
Total	**7.0000e-005**	**8.0000e-005**	**6.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0661**	**0.0661**	**1.0000e-005**	**0.0000**	**0.0676**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9100e-003	0.0579	0.0218	4.0000e-005		2.9600e-003	2.9600e-003		2.7300e-003	2.7300e-003	0.0000	4.0307	4.0307	1.1800e-003	0.0000	4.0601
Total	**4.9100e-003**	**0.0579**	**0.0218**	**4.0000e-005**	**0.0142**	**2.9600e-003**	**0.0171**	**6.8500e-003**	**2.7300e-003**	**9.5800e-003**	**0.0000**	**4.0307**	**4.0307**	**1.1800e-003**	**0.0000**	**4.0601**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.9000e-004	1.6800e-003	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1652	0.1652	1.0000e-005	1.0000e-005	0.1689
Total	**1.7000e-004**	**1.9000e-004**	**1.6800e-003**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1652**	**0.1652**	**1.0000e-005**	**1.0000e-005**	**0.1689**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9100e-003	0.0579	0.0218	4.0000e-005		2.9600e-003	2.9600e-003		2.7300e-003	2.7300e-003	0.0000	4.0307	4.0307	1.1800e-003	0.0000	4.0601
Total	**4.9100e-003**	**0.0579**	**0.0218**	**4.0000e-005**	**6.3700e-003**	**2.9600e-003**	**9.3300e-003**	**3.0800e-003**	**2.7300e-003**	**5.8100e-003**	**0.0000**	**4.0307**	**4.0307**	**1.1800e-003**	**0.0000**	**4.0601**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.9000e-004	1.6800e-003	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1652	0.1652	1.0000e-005	1.0000e-005	0.1689
Total	**1.7000e-004**	**1.9000e-004**	**1.6800e-003**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1652**	**0.1652**	**1.0000e-005**	**1.0000e-005**	**0.1689**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2285	1.7301	0.8941	1.2400e-003		0.1113	0.1113		0.1041	0.1041	0.0000	114.6961	114.6961	0.0353	0.0000	115.5787
Total	**0.2285**	**1.7301**	**0.8941**	**1.2400e-003**		**0.1113**	**0.1113**		**0.1041**	**0.1041**	**0.0000**	**114.6961**	**114.6961**	**0.0353**	**0.0000**	**115.5787**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1201	1.2264	0.4137	1.4800e-003	0.0384	0.0483	0.0867	0.0111	0.0462	0.0573	0.0000	141.8975	141.8975	6.1300e-003	0.0213	148.3818
Worker	0.2758	0.3157	2.7335	2.9300e-003	0.2579	2.8600e-003	0.2607	0.0686	2.6400e-003	0.0712	0.0000	268.4932	268.4932	0.0234	0.0185	274.5910
Total	**0.3959**	**1.5420**	**3.1472**	**4.4100e-003**	**0.2963**	**0.0511**	**0.3474**	**0.0797**	**0.0488**	**0.1285**	**0.0000**	**410.3906**	**410.3906**	**0.0295**	**0.0398**	**422.9728**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2285	1.7301	0.8941	1.2400e-003		0.1113	0.1113		0.1041	0.1041	0.0000	114.6960	114.6960	0.0353	0.0000	115.5786
Total	**0.2285**	**1.7301**	**0.8941**	**1.2400e-003**		**0.1113**	**0.1113**		**0.1041**	**0.1041**	**0.0000**	**114.6960**	**114.6960**	**0.0353**	**0.0000**	**115.5786**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1201	1.2264	0.4137	1.4800e-003	0.0384	0.0483	0.0867	0.0111	0.0462	0.0573	0.0000	141.8975	141.8975	6.1300e-003	0.0213	148.3818
Worker	0.2758	0.3157	2.7335	2.9300e-003	0.2579	2.8600e-003	0.2607	0.0686	2.6400e-003	0.0712	0.0000	268.4932	268.4932	0.0234	0.0185	274.5910
Total	**0.3959**	**1.5420**	**3.1472**	**4.4100e-003**	**0.2963**	**0.0511**	**0.3474**	**0.0797**	**0.0488**	**0.1285**	**0.0000**	**410.3906**	**410.3906**	**0.0295**	**0.0398**	**422.9728**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2110	1.6347	0.8446	1.1700e-003		0.1047	0.1047		0.0978	0.0978	0.0000	108.5830	108.5830	0.0330	0.0000	109.4076
Total	**0.2110**	**1.6347**	**0.8446**	**1.1700e-003**		**0.1047**	**0.1047**		**0.0978**	**0.0978**	**0.0000**	**108.5830**	**108.5830**	**0.0330**	**0.0000**	**109.4076**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1070	1.0924	0.3658	1.4000e-003	0.0365	0.0425	0.0789	0.0105	0.0406	0.0512	0.0000	134.7741	134.7741	5.5600e-003	0.0202	140.9366
Worker	0.2439	0.2687	2.3706	2.7400e-003	0.2447	2.4400e-003	0.2471	0.0651	2.2600e-003	0.0673	0.0000	251.9139	251.9139	0.0205	0.0161	257.2126
Total	**0.3509**	**1.3612**	**2.7364**	**4.1400e-003**	**0.2811**	**0.0449**	**0.3260**	**0.0756**	**0.0429**	**0.1185**	**0.0000**	**386.6880**	**386.6880**	**0.0260**	**0.0363**	**398.1492**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2012

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2110	1.6347	0.8446	1.1700e-003		0.1047	0.1047		0.0978	0.0978	0.0000	108.5828	108.5828	0.0330	0.0000	109.4075
Total	**0.2110**	**1.6347**	**0.8446**	**1.1700e-003**		**0.1047**	**0.1047**		**0.0978**	**0.0978**	**0.0000**	**108.5828**	**108.5828**	**0.0330**	**0.0000**	**109.4075**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1070	1.0924	0.3658	1.4000e-003	0.0365	0.0425	0.0789	0.0105	0.0406	0.0512	0.0000	134.7741	134.7741	5.5600e-003	0.0202	140.9366
Worker	0.2439	0.2687	2.3706	2.7400e-003	0.2447	2.4400e-003	0.2471	0.0651	2.2600e-003	0.0673	0.0000	251.9139	251.9139	0.0205	0.0161	257.2126
Total	**0.3509**	**1.3612**	**2.7364**	**4.1400e-003**	**0.2811**	**0.0449**	**0.3260**	**0.0756**	**0.0429**	**0.1185**	**0.0000**	**386.6880**	**386.6880**	**0.0260**	**0.0363**	**398.1492**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1300e-003	0.0854	0.0470	7.0000e-005		5.2800e-003	5.2800e-003		4.8600e-003	4.8600e-003	0.0000	6.5016	6.5016	1.8700e-003	0.0000	6.5484
Paving	1.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.3700e-003**	**0.0854**	**0.0470**	**7.0000e-005**		**5.2800e-003**	**5.2800e-003**		**4.8600e-003**	**4.8600e-003**	**0.0000**	**6.5016**	**6.5016**	**1.8700e-003**	**0.0000**	**6.5484**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	5.7000e-004	5.0000e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.5308	0.5308	4.0000e-005	3.0000e-005	0.5420
Total	**5.1000e-004**	**5.7000e-004**	**5.0000e-003**	**1.0000e-005**	**5.2000e-004**	**1.0000e-005**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.5308**	**0.5308**	**4.0000e-005**	**3.0000e-005**	**0.5420**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2012

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1300e-003	0.0854	0.0470	7.0000e-005		5.2800e-003	5.2800e-003		4.8600e-003	4.8600e-003	0.0000	6.5016	6.5016	1.8700e-003	0.0000	6.5484
Paving	1.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.3700e-003**	**0.0854**	**0.0470**	**7.0000e-005**		**5.2800e-003**	**5.2800e-003**		**4.8600e-003**	**4.8600e-003**	**0.0000**	**6.5016**	**6.5016**	**1.8700e-003**	**0.0000**	**6.5484**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	5.7000e-004	5.0000e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.5308	0.5308	4.0000e-005	3.0000e-005	0.5420
Total	**5.1000e-004**	**5.7000e-004**	**5.0000e-003**	**1.0000e-005**	**5.2000e-004**	**1.0000e-005**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.5308**	**0.5308**	**4.0000e-005**	**3.0000e-005**	**0.5420**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e-003	0.0158	9.8200e-003	1.0000e-005		1.4500e-003	1.4500e-003		1.4500e-003	1.4500e-003	0.0000	1.2766	1.2766	2.1000e-004	0.0000	1.2820
Total	**1.2986**	**0.0158**	**9.8200e-003**	**1.0000e-005**		**1.4500e-003**	**1.4500e-003**		**1.4500e-003**	**1.4500e-003**	**0.0000**	**1.2766**	**1.2766**	**2.1000e-004**	**0.0000**	**1.2820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0200e-003	2.2200e-003	0.0196	2.0000e-005	2.0200e-003	2.0000e-005	2.0400e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	2.0824	2.0824	1.7000e-004	1.3000e-004	2.1262
Total	**2.0200e-003**	**2.2200e-003**	**0.0196**	**2.0000e-005**	**2.0200e-003**	**2.0000e-005**	**2.0400e-003**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**0.0000**	**2.0824**	**2.0824**	**1.7000e-004**	**1.3000e-004**	**2.1262**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2012

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e-003	0.0158	9.8200e-003	1.0000e-005		1.4500e-003	1.4500e-003		1.4500e-003	1.4500e-003	0.0000	1.2766	1.2766	2.1000e-004	0.0000	1.2820
Total	**1.2986**	**0.0158**	**9.8200e-003**	**1.0000e-005**		**1.4500e-003**	**1.4500e-003**		**1.4500e-003**	**1.4500e-003**	**0.0000**	**1.2766**	**1.2766**	**2.1000e-004**	**0.0000**	**1.2820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0200e-003	2.2200e-003	0.0196	2.0000e-005	2.0200e-003	2.0000e-005	2.0400e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	2.0824	2.0824	1.7000e-004	1.3000e-004	2.1262
Total	**2.0200e-003**	**2.2200e-003**	**0.0196**	**2.0000e-005**	**2.0200e-003**	**2.0000e-005**	**2.0400e-003**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**0.0000**	**2.0824**	**2.0824**	**1.7000e-004**	**1.3000e-004**	**2.1262**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4662	2.4740	14.3107	0.0170	1.3697	0.0398	1.4095	0.3658	0.0377	0.4036	0.0000	1,565.4644	1,565.4644	0.1651	0.1108	1,602.5980
Unmitigated	1.4662	2.4740	14.3107	0.0170	1.3697	0.0398	1.4095	0.3658	0.0377	0.4036	0.0000	1,565.4644	1,565.4644	0.1651	0.1108	1,602.5980

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,686.40	1,522.10	1267.90	3,702,630	3,702,630
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,686.40	1,522.10	1,267.90	3,702,630	3,702,630

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.534899	0.058365	0.180946	0.143768	0.027212	0.004900	0.008907	0.006969	0.000801	0.000404	0.027013	0.000638	0.005178
Enclosed Parking with Elevator	0.534899	0.058365	0.180946	0.143768	0.027212	0.004900	0.008907	0.006969	0.000801	0.000404	0.027013	0.000638	0.005178
Parking Lot	0.534899	0.058365	0.180946	0.143768	0.027212	0.004900	0.008907	0.006969	0.000801	0.000404	0.027013	0.000638	0.005178

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.8674	131.8674	0.0213	2.5900e-003	133.1714
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.8674	131.8674	0.0213	2.5900e-003	133.1714
NaturalGas Mitigated	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
NaturalGas Unmitigated	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009

Eastshore Blvd Apartments (2011 Run) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.61733e+006	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0141**	**0.1206**	**0.0513**	**7.7000e-004**		**9.7500e-003**	**9.7500e-003**		**9.7500e-003**	**9.7500e-003**	**0.0000**	**139.6709**	**139.6709**	**2.6800e-003**	**2.5600e-003**	**140.5009**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.61733e+006	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0141**	**0.1206**	**0.0513**	**7.7000e-004**		**9.7500e-003**	**9.7500e-003**		**9.7500e-003**	**9.7500e-003**	**0.0000**	**139.6709**	**139.6709**	**2.6800e-003**	**2.5600e-003**	**140.5009**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20477e+006	111.4703	0.0180	2.1900e-003	112.5725
Enclosed Parking with Elevator	205969	19.0571	3.0800e-003	3.7000e-004	19.2455
Parking Lot	14483.7	1.3401	2.2000e-004	3.0000e-005	1.3533
Total		**131.8674**	**0.0213**	**2.5900e-003**	**133.1714**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20477e+006	111.4703	0.0180	2.1900e-003	112.5725
Enclosed Parking with Elevator	205969	19.0571	3.0800e-003	3.7000e-004	19.2455
Parking Lot	14483.7	1.3401	2.2000e-004	3.0000e-005	1.3533
Total		**131.8674**	**0.0213**	**2.5900e-003**	**133.1714**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6389	0.0448	3.3580	2.0800e-003		0.1533	0.1533		0.1533	0.1533	14.1328	9.5657	23.6985	0.0268	9.3000e-004	24.6455
Unmitigated	1.6389	0.0448	3.3580	2.0800e-003		0.1533	0.1533		0.1533	0.1533	14.1328	9.5657	23.6985	0.0268	9.3000e-004	24.6455

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.7153	0.0165	0.9849	1.9600e-003		0.1408	0.1408		0.1408	0.1408	14.1328	5.8050	19.9378	0.0227	9.3000e-004	20.7819
Landscaping	0.0790	0.0283	2.3731	1.2000e-004		0.0125	0.0125		0.0125	0.0125	0.0000	3.7606	3.7606	4.1200e-003	0.0000	3.8637
Total	**1.6389**	**0.0448**	**3.3580**	**2.0800e-003**		**0.1533**	**0.1533**		**0.1533**	**0.1533**	**14.1328**	**9.5657**	**23.6985**	**0.0268**	**9.3000e-004**	**24.6455**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.7153	0.0165	0.9849	1.9600e-003		0.1408	0.1408		0.1408	0.1408	14.1328	5.8050	19.9378	0.0227	9.3000e-004	20.7819
Landscaping	0.0790	0.0283	2.3731	1.2000e-004		0.0125	0.0125		0.0125	0.0125	0.0000	3.7606	3.7606	4.1200e-003	0.0000	3.8637
Total	**1.6389**	**0.0448**	**3.3580**	**2.0800e-003**		**0.1533**	**0.1533**		**0.1533**	**0.1533**	**14.1328**	**9.5657**	**23.6985**	**0.0268**	**9.3000e-004**	**24.6455**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.6432	0.6605	0.0158	41.8686
Unmitigated	20.6432	0.6605	0.0158	41.8686

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.1977 / 12.7334	20.6432	0.6605	0.0158	41.8686
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**20.6432**	**0.6605**	**0.0158**	**41.8686**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.1977 / 12.7334	20.6432	0.6605	0.0158	41.8686
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**20.6432**	**0.6605**	**0.0158**	**41.8686**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Eastshore Blvd Apartments (2011 Run) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.9465	1.7107	0.0000	71.7138
Unmitigated	28.9465	1.7107	0.0000	71.7138

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	142.6	28.9465	1.7107	0.0000	71.7138
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9465**	**1.7107**	**0.0000**	**71.7138**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	142.6	28.9465	1.7107	0.0000	71.7138
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9465**	**1.7107**	**0.0000**	**71.7138**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Eastshore Blvd Apartments (Present Run - Tier 2) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Eastshore Blvd Apartments (Present Run - Tier 2)

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	37.86	1000sqft	0.87	37,862.00	0
Parking Lot	0.95	Acre	0.95	41,382.00	0
Apartments Mid Rise	310.00	Dwelling Unit	0.00	181,760.00	887

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG modeler William Deeman

Land Use - Updated lot acreage and square footage based on site plan received 6/1/2022

Construction Phase - Updated construction phase schedule based on data request response received 1/13/23 - 24 month construction schedule

Construction Off-road Equipment Mitigation - Updated equipment for engine with 50 hp or greater to Tier 2

Off-road Equipment - Updated Building Construction equipment/hours: Generator removed from Building Construction phase; site is developed and served by existing electrical infrastructure. Welders reduced to reflect elongated construction timeline compared to CalEEMod defaults.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	200.00	496.00
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	37,860.00	37,862.00
tblLandUse	LandUseSquareFeet	310,000.00	181,760.00
tblLandUse	LotAcreage	8.16	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00

2.0 Emissions Summary

Eastshore Blvd Apartments (Present Run - Tier 2) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1776	1.0968	1.4952	4.6900e-003	0.3170	0.0379	0.3548	0.0896	0.0353	0.1249	0.0000	427.9866	427.9866	0.0402	0.0226	435.7296
2024	1.4570	0.9886	1.4044	4.4300e-003	0.2848	0.0326	0.3174	0.0766	0.0304	0.1070	0.0000	404.0376	404.0376	0.0380	0.0210	411.2323
Maximum	**1.4570**	**1.0968**	**1.4952**	**4.6900e-003**	**0.3170**	**0.0379**	**0.3548**	**0.0896**	**0.0353**	**0.1249**	**0.0000**	**427.9866**	**427.9866**	**0.0402**	**0.0226**	**435.7296**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1521	1.4009	1.6353	4.6900e-003	0.3057	0.0367	0.3424	0.0842	0.0365	0.1207	0.0000	427.9865	427.9865	0.0402	0.0226	435.7295
2024	1.4378	1.3429	1.5401	4.4300e-003	0.2848	0.0353	0.3202	0.0766	0.0352	0.1118	0.0000	404.0375	404.0375	0.0380	0.0210	411.2322
Maximum	**1.4378**	**1.4009**	**1.6353**	**4.6900e-003**	**0.3057**	**0.0367**	**0.3424**	**0.0842**	**0.0365**	**0.1207**	**0.0000**	**427.9865**	**427.9865**	**0.0402**	**0.0226**	**435.7295**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	2.73	-31.58	-9.51	0.00	1.87	-2.19	1.44	3.26	-9.04	-0.23	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	0.3325	0.4025
2	4-1-2023	6-30-2023	0.3128	0.3821
3	7-1-2023	9-30-2023	0.3162	0.3863
4	10-1-2023	12-31-2023	0.3225	0.3926
5	1-1-2024	3-31-2024	0.3017	0.3835
6	4-1-2024	6-30-2024	0.2958	0.3775
7	7-1-2024	9-30-2024	0.2990	0.3817
		Highest	0.3325	0.4025

Eastshore Blvd Apartments (Present Run - Tier 2) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6289	0.0430	3.2849	2.0800e-003		0.1536	0.1536		0.1536	0.1536	14.1328	9.5657	23.6985	0.0263	9.3000e-004	24.6326
Energy	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	271.5383	271.5383	0.0240	5.1500e-003	273.6722
Mobile	0.6514	0.7092	5.9517	0.0124	1.3701	9.2200e-003	1.3793	0.3660	8.6000e-003	0.3746	0.0000	1,138.9495	1,138.9495	0.0746	0.0547	1,157.1117
Waste						0.0000	0.0000		0.0000	0.0000	28.9465	0.0000	28.9465	1.7107	0.0000	71.7138
Water						0.0000	0.0000		0.0000	0.0000	6.4078	14.2354	20.6432	0.6605	0.0158	41.8686
Total	**2.2945**	**0.8728**	**9.2879**	**0.0152**	**1.3701**	**0.1725**	**1.5426**	**0.3660**	**0.1719**	**0.5379**	**49.4871**	**1,434.2889**	**1,483.7760**	**2.4960**	**0.0766**	**1,568.9988**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6289	0.0430	3.2849	2.0800e-003		0.1536	0.1536		0.1536	0.1536	14.1328	9.5657	23.6985	0.0263	9.3000e-004	24.6326
Energy	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	271.5383	271.5383	0.0240	5.1500e-003	273.6722
Mobile	0.6514	0.7092	5.9517	0.0124	1.3701	9.2200e-003	1.3793	0.3660	8.6000e-003	0.3746	0.0000	1,138.9495	1,138.9495	0.0746	0.0547	1,157.1117
Waste						0.0000	0.0000		0.0000	0.0000	28.9465	0.0000	28.9465	1.7107	0.0000	71.7138
Water						0.0000	0.0000		0.0000	0.0000	6.4078	14.2354	20.6432	0.6605	0.0158	41.8686
Total	**2.2945**	**0.8728**	**9.2879**	**0.0152**	**1.3701**	**0.1725**	**1.5426**	**0.3660**	**0.1719**	**0.5379**	**49.4871**	**1,434.2889**	**1,483.7760**	**2.4960**	**0.0766**	**1,568.9988**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2023	12/30/2022	5	0	
2	Site Preparation	Site Preparation	1/1/2023	1/3/2023	5	2	
3	Grading	Grading	1/4/2023	1/9/2023	5	4	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	1/10/2023	12/3/2024	5	496	
5	Paving	Paving	12/4/2024	12/17/2024	5	10	
6	Architectural Coating	Architectural Coating	12/18/2024	12/31/2024	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.82

Residential Indoor: 368,064; Residential Outdoor: 122,688; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,755 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	2.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	256.00	46.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**1.1300e-003**	**0.0124**	**6.6400e-003**	**2.0000e-005**	**6.2700e-003**	**5.1000e-004**	**6.7800e-003**	**3.0000e-003**	**4.7000e-004**	**3.4700e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0494	0.0494	0.0000	0.0000	0.0498
Total	**2.0000e-005**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0494**	**0.0494**	**0.0000**	**0.0000**	**0.0498**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9000e-004	0.0150	9.8200e-003	2.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**4.9000e-004**	**0.0150**	**9.8200e-003**	**2.0000e-005**	**2.8200e-003**	**3.7000e-004**	**3.1900e-003**	**1.3500e-003**	**3.7000e-004**	**1.7200e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0494	0.0494	0.0000	0.0000	0.0498
Total	**2.0000e-005**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0494**	**0.0494**	**0.0000**	**0.0000**	**0.0498**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**2.6700e-003**	**0.0289**	**0.0174**	**4.0000e-005**	**0.0142**	**1.2100e-003**	**0.0154**	**6.8500e-003**	**1.1100e-003**	**7.9600e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1234	0.1234	0.0000	0.0000	0.1245
Total	**5.0000e-005**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1234**	**0.1234**	**0.0000**	**0.0000**	**0.1245**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2500e-003	0.0362	0.0243	4.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**1.2500e-003**	**0.0362**	**0.0243**	**4.0000e-005**	**6.3700e-003**	**9.7000e-004**	**7.3400e-003**	**3.0800e-003**	**9.7000e-004**	**4.0500e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1234	0.1234	0.0000	0.0000	0.1245
Total	**5.0000e-005**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1234**	**0.1234**	**0.0000**	**0.0000**	**0.1245**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0819	0.7364	0.6561	1.2400e-003		0.0333	0.0333		0.0311	0.0311	0.0000	105.0655	105.0655	0.0301	0.0000	105.8189
Total	**0.0819**	**0.7364**	**0.6561**	**1.2400e-003**		**0.0333**	**0.0333**		**0.0311**	**0.0311**	**0.0000**	**105.0655**	**105.0655**	**0.0301**	**0.0000**	**105.8189**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-003	0.2606	0.0852	1.2000e-003	0.0384	1.5400e-003	0.0400	0.0111	1.4700e-003	0.0126	0.0000	117.0614	117.0614	2.3700e-003	0.0169	122.1687
Worker	0.0851	0.0583	0.7292	2.1900e-003	0.2579	1.3000e-003	0.2592	0.0686	1.2000e-003	0.0698	0.0000	200.5548	200.5548	5.9900e-003	5.6700e-003	202.3939
Total	**0.0918**	**0.3189**	**0.8144**	**3.3900e-003**	**0.2963**	**2.8400e-003**	**0.2991**	**0.0797**	**2.6700e-003**	**0.0824**	**0.0000**	**317.6162**	**317.6162**	**8.3600e-003**	**0.0226**	**324.5627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0585	1.0308	0.7861	1.2400e-003		0.0325	0.0325		0.0325	0.0325	0.0000	105.0654	105.0654	0.0301	0.0000	105.8188
Total	**0.0585**	**1.0308**	**0.7861**	**1.2400e-003**		**0.0325**	**0.0325**		**0.0325**	**0.0325**	**0.0000**	**105.0654**	**105.0654**	**0.0301**	**0.0000**	**105.8188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-003	0.2606	0.0852	1.2000e-003	0.0384	1.5400e-003	0.0400	0.0111	1.4700e-003	0.0126	0.0000	117.0614	117.0614	2.3700e-003	0.0169	122.1687
Worker	0.0851	0.0583	0.7292	2.1900e-003	0.2579	1.3000e-003	0.2592	0.0686	1.2000e-003	0.0698	0.0000	200.5548	200.5548	5.9900e-003	5.6700e-003	202.3939
Total	**0.0918**	**0.3189**	**0.8144**	**3.3900e-003**	**0.2963**	**2.8400e-003**	**0.2991**	**0.0797**	**2.6700e-003**	**0.0824**	**0.0000**	**317.6162**	**317.6162**	**8.3600e-003**	**0.0226**	**324.5627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0731	0.6549	0.6183	1.1800e-003		0.0282	0.0282		0.0263	0.0263	0.0000	100.1165	100.1165	0.0286	0.0000	100.8314
Total	**0.0731**	**0.6549**	**0.6183**	**1.1800e-003**		**0.0282**	**0.0282**		**0.0263**	**0.0263**	**0.0000**	**100.1165**	**100.1165**	**0.0286**	**0.0000**	**100.8314**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2483	0.0792	1.1300e-003	0.0366	1.4800e-003	0.0381	0.0106	1.4100e-003	0.0120	0.0000	109.9980	109.9980	2.2200e-003	0.0159	114.7833
Worker	0.0756	0.0495	0.6470	2.0200e-003	0.2457	1.1800e-003	0.2469	0.0653	1.0800e-003	0.0664	0.0000	184.8498	184.8498	5.1700e-003	5.0300e-003	186.4791
Total	**0.0818**	**0.2978**	**0.7262**	**3.1500e-003**	**0.2823**	**2.6600e-003**	**0.2850**	**0.0759**	**2.4900e-003**	**0.0784**	**0.0000**	**294.8479**	**294.8479**	**7.3900e-003**	**0.0209**	**301.2624**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0540	0.9785	0.7477	1.1800e-003		0.0302	0.0302		0.0302	0.0302	0.0000	100.1163	100.1163	0.0286	0.0000	100.8313
Total	**0.0540**	**0.9785**	**0.7477**	**1.1800e-003**		**0.0302**	**0.0302**		**0.0302**	**0.0302**	**0.0000**	**100.1163**	**100.1163**	**0.0286**	**0.0000**	**100.8313**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2483	0.0792	1.1300e-003	0.0366	1.4800e-003	0.0381	0.0106	1.4100e-003	0.0120	0.0000	109.9980	109.9980	2.2200e-003	0.0159	114.7833
Worker	0.0756	0.0495	0.6470	2.0200e-003	0.2457	1.1800e-003	0.2469	0.0653	1.0800e-003	0.0664	0.0000	184.8498	184.8498	5.1700e-003	5.0300e-003	186.4791
Total	**0.0818**	**0.2978**	**0.7262**	**3.1500e-003**	**0.2823**	**2.6600e-003**	**0.2850**	**0.0759**	**2.4900e-003**	**0.0784**	**0.0000**	**294.8479**	**294.8479**	**7.3900e-003**	**0.0209**	**301.2624**

Eastshore Blvd Apartments (Present Run - Tier 2) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0900e-003	0.0293	0.0441	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	5.8870	5.8870	1.8700e-003	0.0000	5.9337
Paving	1.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3300e-003**	**0.0293**	**0.0441**	**7.0000e-005**		**1.4100e-003**	**1.4100e-003**		**1.3000e-003**	**1.3000e-003**	**0.0000**	**5.8870**	**5.8870**	**1.8700e-003**	**0.0000**	**5.9337**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.0000e-004	1.3600e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3879	0.3879	1.0000e-005	1.0000e-005	0.3913
Total	**1.6000e-004**	**1.0000e-004**	**1.3600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3879**	**0.3879**	**1.0000e-005**	**1.0000e-005**	**0.3913**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.9700e-003	0.0601	0.0504	7.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	5.8870	5.8870	1.8700e-003	0.0000	5.9337
Paving	1.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2100e-003**	**0.0601**	**0.0504**	**7.0000e-005**		**2.1100e-003**	**2.1100e-003**		**2.1100e-003**	**2.1100e-003**	**0.0000**	**5.8870**	**5.8870**	**1.8700e-003**	**0.0000**	**5.9337**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.0000e-004	1.3600e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3879	0.3879	1.0000e-005	1.0000e-005	0.3913
Total	**1.6000e-004**	**1.0000e-004**	**1.3600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3879**	**0.3879**	**1.0000e-005**	**1.0000e-005**	**0.3913**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**1.2969**	**6.0900e-003**	**9.0500e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.1000e-004	5.3300e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.5217	1.5217	4.0000e-005	4.0000e-005	1.5351
Total	**6.2000e-004**	**4.1000e-004**	**5.3300e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.5217**	**1.5217**	**4.0000e-005**	**4.0000e-005**	**1.5351**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**1.2969**	**6.0900e-003**	**9.0500e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.1000e-004	5.3300e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.5217	1.5217	4.0000e-005	4.0000e-005	1.5351
Total	**6.2000e-004**	**4.1000e-004**	**5.3300e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.5217**	**1.5217**	**4.0000e-005**	**4.0000e-005**	**1.5351**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6514	0.7092	5.9517	0.0124	1.3701	9.2200e-003	1.3793	0.3660	8.6000e-003	0.3746	0.0000	1,138.9495	1,138.9495	0.0746	0.0547	1,157.1117
Unmitigated	0.6514	0.7092	5.9517	0.0124	1.3701	9.2200e-003	1.3793	0.3660	8.6000e-003	0.3746	0.0000	1,138.9495	1,138.9495	0.0746	0.0547	1,157.1117

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,686.40	1,522.10	1267.90	3,702,630	3,702,630
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,686.40	1,522.10	1,267.90	3,702,630	3,702,630

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Enclosed Parking with Elevator	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Parking Lot	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.8674	131.8674	0.0213	2.5900e-003	133.1714
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.8674	131.8674	0.0213	2.5900e-003	133.1714
NaturalGas Mitigated	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
NaturalGas Unmitigated	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009

Eastshore Blvd Apartments (Present Run - Tier 2) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.61733e+006	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0141**	**0.1206**	**0.0513**	**7.7000e-004**		**9.7500e-003**	**9.7500e-003**		**9.7500e-003**	**9.7500e-003**	**0.0000**	**139.6709**	**139.6709**	**2.6800e-003**	**2.5600e-003**	**140.5009**

Eastshore Blvd Apartments (Present Run - Tier 2) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.61733e+006	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0141**	**0.1206**	**0.0513**	**7.7000e-004**		**9.7500e-003**	**9.7500e-003**		**9.7500e-003**	**9.7500e-003**	**0.0000**	**139.6709**	**139.6709**	**2.6800e-003**	**2.5600e-003**	**140.5009**

Eastshore Blvd Apartments (Present Run - Tier 2) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20477e+006	111.4703	0.0180	2.1900e-003	112.5725
Enclosed Parking with Elevator	205969	19.0571	3.0800e-003	3.7000e-004	19.2455
Parking Lot	14483.7	1.3401	2.2000e-004	3.0000e-005	1.3533
Total		**131.8674**	**0.0213**	**2.5900e-003**	**133.1714**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20477e+006	111.4703	0.0180	2.1900e-003	112.5725
Enclosed Parking with Elevator	205969	19.0571	3.0800e-003	3.7000e-004	19.2455
Parking Lot	14483.7	1.3401	2.2000e-004	3.0000e-005	1.3533
Total		**131.8674**	**0.0213**	**2.5900e-003**	**133.1714**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6289	0.0430	3.2849	2.0800e-003		0.1536	0.1536		0.1536	0.1536	14.1328	9.5657	23.6985	0.0263	9.3000e-004	24.6326
Unmitigated	1.6289	0.0430	3.2849	2.0800e-003		0.1536	0.1536		0.1536	0.1536	14.1328	9.5657	23.6985	0.0263	9.3000e-004	24.6326

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.7153	0.0165	0.9849	1.9600e-003		0.1408	0.1408		0.1408	0.1408	14.1328	5.8050	19.9378	0.0227	9.3000e-004	20.7819
Landscaping	0.0691	0.0265	2.3000	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7606	3.7606	3.6000e-003	0.0000	3.8507
Total	**1.6289**	**0.0430**	**3.2849**	**2.0800e-003**		**0.1536**	**0.1536**		**0.1536**	**0.1536**	**14.1328**	**9.5657**	**23.6985**	**0.0263**	**9.3000e-004**	**24.6326**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.7153	0.0165	0.9849	1.9600e-003		0.1408	0.1408		0.1408	0.1408	14.1328	5.8050	19.9378	0.0227	9.3000e-004	20.7819
Landscaping	0.0691	0.0265	2.3000	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7606	3.7606	3.6000e-003	0.0000	3.8507
Total	**1.6289**	**0.0430**	**3.2849**	**2.0800e-003**		**0.1536**	**0.1536**		**0.1536**	**0.1536**	**14.1328**	**9.5657**	**23.6985**	**0.0263**	**9.3000e-004**	**24.6326**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.6432	0.6605	0.0158	41.8686
Unmitigated	20.6432	0.6605	0.0158	41.8686

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.1977 / 12.7334	20.6432	0.6605	0.0158	41.8686
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**20.6432**	**0.6605**	**0.0158**	**41.8686**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.1977 / 12.7334	20.6432	0.6605	0.0158	41.8686
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**20.6432**	**0.6605**	**0.0158**	**41.8686**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Eastshore Blvd Apartments (Present Run - Tier 2) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.9465	1.7107	0.0000	71.7138
Unmitigated	28.9465	1.7107	0.0000	71.7138

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	142.6	28.9465	1.7107	0.0000	71.7138
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9465**	**1.7107**	**0.0000**	**71.7138**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	142.6	28.9465	1.7107	0.0000	71.7138
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9465**	**1.7107**	**0.0000**	**71.7138**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Eastshore Blvd Apartments (Present Run - Tier 4 Final)

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	37.86	1000sqft	0.87	37,862.00	0
Parking Lot	0.95	Acre	0.95	41,382.00	0
Apartments Mid Rise	310.00	Dwelling Unit	0.00	181,760.00	887

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG modeler William Deeman

Land Use - Updated lot acreage and square footage based on site plan received 6/1/2022

Construction Phase - Updated construction phase schedule based on data request response received 1/13/23 - 24 month construction schedule

Construction Off-road Equipment Mitigation - Updated equipment for engine with 50 hp or greater to Tier 4 Final

Off-road Equipment - Updated Building Construction equipment/hours: Generator removed from Building Construction phase; site is developed and served by existing electrical infrastructure. Welders reduced to reflect elongated construction timeline compared to CalEEMod defaults.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	200.00	496.00
tblConstructionPhase	PhaseEndDate	1/27/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	1/31/2023	1/3/2023
tblConstructionPhase	PhaseEndDate	2/6/2023	1/9/2023
tblConstructionPhase	PhaseEndDate	11/13/2023	12/3/2024
tblConstructionPhase	PhaseEndDate	11/27/2023	12/17/2024
tblConstructionPhase	PhaseEndDate	12/11/2023	12/31/2024
tblConstructionPhase	PhaseStartDate	1/28/2023	1/1/2023
tblConstructionPhase	PhaseStartDate	2/1/2023	1/4/2023
tblConstructionPhase	PhaseStartDate	2/7/2023	1/10/2023
tblConstructionPhase	PhaseStartDate	11/14/2023	12/4/2024

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseStartDate	11/28/2023	12/18/2024
tblLandUse	LandUseSquareFeet	37,860.00	37,862.00
tblLandUse	LandUseSquareFeet	310,000.00	181,760.00
tblLandUse	LotAcreage	8.16	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00

2.0 Emissions Summary

Eastshore Blvd Apartments (Present Run - Tier 4 Final) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1776	1.0968	1.4952	4.6900e-003	0.3170	0.0379	0.3548	0.0896	0.0353	0.1249	0.0000	427.9866	427.9866	0.0402	0.0226	435.7296
2024	1.4570	0.9886	1.4044	4.4300e-003	0.2848	0.0326	0.3174	0.0766	0.0304	0.1070	0.0000	404.0376	404.0376	0.0380	0.0210	411.2323
Maximum	**1.4570**	**1.0968**	**1.4952**	**4.6900e-003**	**0.3170**	**0.0379**	**0.3548**	**0.0896**	**0.0353**	**0.1249**	**0.0000**	**427.9866**	**427.9866**	**0.0402**	**0.0226**	**435.7296**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1290	0.5101	1.5866	4.6900e-003	0.3057	9.8000e-003	0.3155	0.0842	9.6300e-003	0.0938	0.0000	427.9865	427.9865	0.0402	0.0226	435.7295
2024	1.4148	0.4848	1.4972	4.4300e-003	0.2848	8.9800e-003	0.2938	0.0766	8.8200e-003	0.0854	0.0000	404.0375	404.0375	0.0380	0.0210	411.2322
Maximum	**1.4148**	**0.5101**	**1.5866**	**4.6900e-003**	**0.3057**	**9.8000e-003**	**0.3155**	**0.0842**	**9.6300e-003**	**0.0938**	**0.0000**	**427.9865**	**427.9865**	**0.0402**	**0.0226**	**435.7295**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	5.55	52.29	-6.35	0.00	1.87	73.34	9.35	3.26	71.92	22.70	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	0.3325	0.1529
2	4-1-2023	6-30-2023	0.3128	0.1608
3	7-1-2023	9-30-2023	0.3162	0.1626
4	10-1-2023	12-31-2023	0.3225	0.1688
5	1-1-2024	3-31-2024	0.3017	0.1622
6	4-1-2024	6-30-2024	0.2958	0.1562
7	7-1-2024	9-30-2024	0.2990	0.1579
		Highest	0.3325	0.1688

Eastshore Blvd Apartments (Present Run - Tier 4 Final) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6289	0.0430	3.2849	2.0800e-003		0.1536	0.1536		0.1536	0.1536	14.1328	9.5657	23.6985	0.0263	9.3000e-004	24.6326
Energy	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	271.5383	271.5383	0.0240	5.1500e-003	273.6722
Mobile	0.6514	0.7092	5.9517	0.0124	1.3701	9.2200e-003	1.3793	0.3660	8.6000e-003	0.3746	0.0000	1,138.9495	1,138.9495	0.0746	0.0547	1,157.1117
Waste						0.0000	0.0000		0.0000	0.0000	28.9465	0.0000	28.9465	1.7107	0.0000	71.7138
Water						0.0000	0.0000		0.0000	0.0000	6.4078	14.2354	20.6432	0.6605	0.0158	41.8686
Total	**2.2945**	**0.8728**	**9.2879**	**0.0152**	**1.3701**	**0.1725**	**1.5426**	**0.3660**	**0.1719**	**0.5379**	**49.4871**	**1,434.2889**	**1,483.7760**	**2.4960**	**0.0766**	**1,568.9988**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6289	0.0430	3.2849	2.0800e-003		0.1536	0.1536		0.1536	0.1536	14.1328	9.5657	23.6985	0.0263	9.3000e-004	24.6326
Energy	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	271.5383	271.5383	0.0240	5.1500e-003	273.6722
Mobile	0.6514	0.7092	5.9517	0.0124	1.3701	9.2200e-003	1.3793	0.3660	8.6000e-003	0.3746	0.0000	1,138.9495	1,138.9495	0.0746	0.0547	1,157.1117
Waste						0.0000	0.0000		0.0000	0.0000	28.9465	0.0000	28.9465	1.7107	0.0000	71.7138
Water						0.0000	0.0000		0.0000	0.0000	6.4078	14.2354	20.6432	0.6605	0.0158	41.8686
Total	**2.2945**	**0.8728**	**9.2879**	**0.0152**	**1.3701**	**0.1725**	**1.5426**	**0.3660**	**0.1719**	**0.5379**	**49.4871**	**1,434.2889**	**1,483.7760**	**2.4960**	**0.0766**	**1,568.9988**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2023	12/30/2022	5	0	
2	Site Preparation	Site Preparation	1/1/2023	1/3/2023	5	2	
3	Grading	Grading	1/4/2023	1/9/2023	5	4	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	1/10/2023	12/3/2024	5	496	
5	Paving	Paving	12/4/2024	12/17/2024	5	10	
6	Architectural Coating	Architectural Coating	12/18/2024	12/31/2024	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.82

Residential Indoor: 368,064; Residential Outdoor: 122,688; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,755 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	2.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	256.00	46.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**1.1300e-003**	**0.0124**	**6.6400e-003**	**2.0000e-005**	**6.2700e-003**	**5.1000e-004**	**6.7800e-003**	**3.0000e-003**	**4.7000e-004**	**3.4700e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0494	0.0494	0.0000	0.0000	0.0498
Total	**2.0000e-005**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0494**	**0.0494**	**0.0000**	**0.0000**	**0.0498**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	9.1000e-004	8.6700e-003	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**2.1000e-004**	**9.1000e-004**	**8.6700e-003**	**2.0000e-005**	**2.8200e-003**	**3.0000e-005**	**2.8500e-003**	**1.3500e-003**	**3.0000e-005**	**1.3800e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0494	0.0494	0.0000	0.0000	0.0498
Total	**2.0000e-005**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0494**	**0.0494**	**0.0000**	**0.0000**	**0.0498**

Eastshore Blvd Apartments (Present Run - Tier 4 Final) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**2.6700e-003**	**0.0289**	**0.0174**	**4.0000e-005**	**0.0142**	**1.2100e-003**	**0.0154**	**6.8500e-003**	**1.1100e-003**	**7.9600e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1234	0.1234	0.0000	0.0000	0.1245
Total	**5.0000e-005**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1234**	**0.1234**	**0.0000**	**0.0000**	**0.1245**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**6.3700e-003**	**7.0000e-005**	**6.4400e-003**	**3.0800e-003**	**7.0000e-005**	**3.1500e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1234	0.1234	0.0000	0.0000	0.1245
Total	**5.0000e-005**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1234**	**0.1234**	**0.0000**	**0.0000**	**0.1245**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0819	0.7364	0.6561	1.2400e-003		0.0333	0.0333		0.0311	0.0311	0.0000	105.0655	105.0655	0.0301	0.0000	105.8189
Total	**0.0819**	**0.7364**	**0.6561**	**1.2400e-003**		**0.0333**	**0.0333**		**0.0311**	**0.0311**	**0.0000**	**105.0655**	**105.0655**	**0.0301**	**0.0000**	**105.8189**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-003	0.2606	0.0852	1.2000e-003	0.0384	1.5400e-003	0.0400	0.0111	1.4700e-003	0.0126	0.0000	117.0614	117.0614	2.3700e-003	0.0169	122.1687
Worker	0.0851	0.0583	0.7292	2.1900e-003	0.2579	1.3000e-003	0.2592	0.0686	1.2000e-003	0.0698	0.0000	200.5548	200.5548	5.9900e-003	5.6700e-003	202.3939
Total	**0.0918**	**0.3189**	**0.8144**	**3.3900e-003**	**0.2963**	**2.8400e-003**	**0.2991**	**0.0797**	**2.6700e-003**	**0.0824**	**0.0000**	**317.6162**	**317.6162**	**8.3600e-003**	**0.0226**	**324.5627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0364	0.1880	0.7411	1.2400e-003		6.8700e-003	6.8700e-003		6.8700e-003	6.8700e-003	0.0000	105.0654	105.0654	0.0301	0.0000	105.8188
Total	**0.0364**	**0.1880**	**0.7411**	**1.2400e-003**		**6.8700e-003**	**6.8700e-003**		**6.8700e-003**	**6.8700e-003**	**0.0000**	**105.0654**	**105.0654**	**0.0301**	**0.0000**	**105.8188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-003	0.2606	0.0852	1.2000e-003	0.0384	1.5400e-003	0.0400	0.0111	1.4700e-003	0.0126	0.0000	117.0614	117.0614	2.3700e-003	0.0169	122.1687
Worker	0.0851	0.0583	0.7292	2.1900e-003	0.2579	1.3000e-003	0.2592	0.0686	1.2000e-003	0.0698	0.0000	200.5548	200.5548	5.9900e-003	5.6700e-003	202.3939
Total	**0.0918**	**0.3189**	**0.8144**	**3.3900e-003**	**0.2963**	**2.8400e-003**	**0.2991**	**0.0797**	**2.6700e-003**	**0.0824**	**0.0000**	**317.6162**	**317.6162**	**8.3600e-003**	**0.0226**	**324.5627**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0731	0.6549	0.6183	1.1800e-003		0.0282	0.0282		0.0263	0.0263	0.0000	100.1165	100.1165	0.0286	0.0000	100.8314
Total	**0.0731**	**0.6549**	**0.6183**	**1.1800e-003**		**0.0282**	**0.0282**		**0.0263**	**0.0263**	**0.0000**	**100.1165**	**100.1165**	**0.0286**	**0.0000**	**100.8314**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2483	0.0792	1.1300e-003	0.0366	1.4800e-003	0.0381	0.0106	1.4100e-003	0.0120	0.0000	109.9980	109.9980	2.2200e-003	0.0159	114.7833
Worker	0.0756	0.0495	0.6470	2.0200e-003	0.2457	1.1800e-003	0.2469	0.0653	1.0800e-003	0.0664	0.0000	184.8498	184.8498	5.1700e-003	5.0300e-003	186.4791
Total	**0.0818**	**0.2978**	**0.7262**	**3.1500e-003**	**0.2823**	**2.6600e-003**	**0.2850**	**0.0759**	**2.4900e-003**	**0.0784**	**0.0000**	**294.8479**	**294.8479**	**7.3900e-003**	**0.0209**	**301.2624**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0330	0.1755	0.7048	1.1800e-003		5.8500e-003	5.8500e-003		5.8500e-003	5.8500e-003	0.0000	100.1163	100.1163	0.0286	0.0000	100.8313
Total	**0.0330**	**0.1755**	**0.7048**	**1.1800e-003**		**5.8500e-003**	**5.8500e-003**		**5.8500e-003**	**5.8500e-003**	**0.0000**	**100.1163**	**100.1163**	**0.0286**	**0.0000**	**100.8313**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2483	0.0792	1.1300e-003	0.0366	1.4800e-003	0.0381	0.0106	1.4100e-003	0.0120	0.0000	109.9980	109.9980	2.2200e-003	0.0159	114.7833
Worker	0.0756	0.0495	0.6470	2.0200e-003	0.2457	1.1800e-003	0.2469	0.0653	1.0800e-003	0.0664	0.0000	184.8498	184.8498	5.1700e-003	5.0300e-003	186.4791
Total	**0.0818**	**0.2978**	**0.7262**	**3.1500e-003**	**0.2823**	**2.6600e-003**	**0.2850**	**0.0759**	**2.4900e-003**	**0.0784**	**0.0000**	**294.8479**	**294.8479**	**7.3900e-003**	**0.0209**	**301.2624**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0900e-003	0.0293	0.0441	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	5.8870	5.8870	1.8700e-003	0.0000	5.9337
Paving	1.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3300e-003**	**0.0293**	**0.0441**	**7.0000e-005**		**1.4100e-003**	**1.4100e-003**		**1.3000e-003**	**1.3000e-003**	**0.0000**	**5.8870**	**5.8870**	**1.8700e-003**	**0.0000**	**5.9337**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.0000e-004	1.3600e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3879	0.3879	1.0000e-005	1.0000e-005	0.3913
Total	**1.6000e-004**	**1.0000e-004**	**1.3600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3879**	**0.3879**	**1.0000e-005**	**1.0000e-005**	**0.3913**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0200e-003	4.8400e-003	0.0504	7.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	5.8870	5.8870	1.8700e-003	0.0000	5.9337
Paving	1.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.2600e-003**	**4.8400e-003**	**0.0504**	**7.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**5.8870**	**5.8870**	**1.8700e-003**	**0.0000**	**5.9337**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.0000e-004	1.3600e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3879	0.3879	1.0000e-005	1.0000e-005	0.3913
Total	**1.6000e-004**	**1.0000e-004**	**1.3600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3879**	**0.3879**	**1.0000e-005**	**1.0000e-005**	**0.3913**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**1.2969**	**6.0900e-003**	**9.0500e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.1000e-004	5.3300e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.5217	1.5217	4.0000e-005	4.0000e-005	1.5351
Total	**6.2000e-004**	**4.1000e-004**	**5.3300e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.5217**	**1.5217**	**4.0000e-005**	**4.0000e-005**	**1.5351**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**1.2969**	**6.0900e-003**	**9.0500e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.1000e-004	5.3300e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.5217	1.5217	4.0000e-005	4.0000e-005	1.5351
Total	**6.2000e-004**	**4.1000e-004**	**5.3300e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.5217**	**1.5217**	**4.0000e-005**	**4.0000e-005**	**1.5351**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6514	0.7092	5.9517	0.0124	1.3701	9.2200e-003	1.3793	0.3660	8.6000e-003	0.3746	0.0000	1,138.9495	1,138.9495	0.0746	0.0547	1,157.1117
Unmitigated	0.6514	0.7092	5.9517	0.0124	1.3701	9.2200e-003	1.3793	0.3660	8.6000e-003	0.3746	0.0000	1,138.9495	1,138.9495	0.0746	0.0547	1,157.1117

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,686.40	1,522.10	1267.90	3,702,630	3,702,630
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,686.40	1,522.10	1,267.90	3,702,630	3,702,630

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Enclosed Parking with Elevator	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Parking Lot	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.8674	131.8674	0.0213	2.5900e-003	133.1714
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	131.8674	131.8674	0.0213	2.5900e-003	133.1714
NaturalGas Mitigated	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
NaturalGas Unmitigated	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009

Eastshore Blvd Apartments (Present Run - Tier 4 Final) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.61733e+006	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0141**	**0.1206**	**0.0513**	**7.7000e-004**		**9.7500e-003**	**9.7500e-003**		**9.7500e-003**	**9.7500e-003**	**0.0000**	**139.6709**	**139.6709**	**2.6800e-003**	**2.5600e-003**	**140.5009**

Eastshore Blvd Apartments (Present Run - Tier 4 Final) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.61733e+006	0.0141	0.1206	0.0513	7.7000e-004		9.7500e-003	9.7500e-003		9.7500e-003	9.7500e-003	0.0000	139.6709	139.6709	2.6800e-003	2.5600e-003	140.5009
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0141**	**0.1206**	**0.0513**	**7.7000e-004**		**9.7500e-003**	**9.7500e-003**		**9.7500e-003**	**9.7500e-003**	**0.0000**	**139.6709**	**139.6709**	**2.6800e-003**	**2.5600e-003**	**140.5009**

Eastshore Blvd Apartments (Present Run - Tier 4 Final) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20477e+006	111.4703	0.0180	2.1900e-003	112.5725
Enclosed Parking with Elevator	205969	19.0571	3.0800e-003	3.7000e-004	19.2455
Parking Lot	14483.7	1.3401	2.2000e-004	3.0000e-005	1.3533
Total		**131.8674**	**0.0213**	**2.5900e-003**	**133.1714**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20477e+006	111.4703	0.0180	2.1900e-003	112.5725
Enclosed Parking with Elevator	205969	19.0571	3.0800e-003	3.7000e-004	19.2455
Parking Lot	14483.7	1.3401	2.2000e-004	3.0000e-005	1.3533
Total		**131.8674**	**0.0213**	**2.5900e-003**	**133.1714**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6289	0.0430	3.2849	2.0800e-003		0.1536	0.1536		0.1536	0.1536	14.1328	9.5657	23.6985	0.0263	9.3000e-004	24.6326
Unmitigated	1.6289	0.0430	3.2849	2.0800e-003		0.1536	0.1536		0.1536	0.1536	14.1328	9.5657	23.6985	0.0263	9.3000e-004	24.6326

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.7153	0.0165	0.9849	1.9600e-003		0.1408	0.1408		0.1408	0.1408	14.1328	5.8050	19.9378	0.0227	9.3000e-004	20.7819
Landscaping	0.0691	0.0265	2.3000	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7606	3.7606	3.6000e-003	0.0000	3.8507
Total	**1.6289**	**0.0430**	**3.2849**	**2.0800e-003**		**0.1536**	**0.1536**		**0.1536**	**0.1536**	**14.1328**	**9.5657**	**23.6985**	**0.0263**	**9.3000e-004**	**24.6326**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1296					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.7153	0.0165	0.9849	1.9600e-003		0.1408	0.1408		0.1408	0.1408	14.1328	5.8050	19.9378	0.0227	9.3000e-004	20.7819
Landscaping	0.0691	0.0265	2.3000	1.2000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	3.7606	3.7606	3.6000e-003	0.0000	3.8507
Total	**1.6289**	**0.0430**	**3.2849**	**2.0800e-003**		**0.1536**	**0.1536**		**0.1536**	**0.1536**	**14.1328**	**9.5657**	**23.6985**	**0.0263**	**9.3000e-004**	**24.6326**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.6432	0.6605	0.0158	41.8686
Unmitigated	20.6432	0.6605	0.0158	41.8686

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.1977 / 12.7334	20.6432	0.6605	0.0158	41.8686
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**20.6432**	**0.6605**	**0.0158**	**41.8686**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.1977 / 12.7334	20.6432	0.6605	0.0158	41.8686
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**20.6432**	**0.6605**	**0.0158**	**41.8686**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Eastshore Blvd Apartments (Present Run - Tier 4 Final) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.9465	1.7107	0.0000	71.7138
Unmitigated	28.9465	1.7107	0.0000	71.7138

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	142.6	28.9465	1.7107	0.0000	71.7138
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9465**	**1.7107**	**0.0000**	**71.7138**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	142.6	28.9465	1.7107	0.0000	71.7138
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**28.9465**	**1.7107**	**0.0000**	**71.7138**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

Attachment 4

Construction Health Risk Assessment Methodology

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Eastshore Boulevard Apartments Project
Attachment 4: Construction HRA Methodology

Construction activities associated with the proposed project would generate on- and off-site exhaust emissions, including diesel particulate matter (DPM), in the form of $PM_{2.5}$. The specific quantity of emissions emitted at any given time would be dependent on the type and number of pieces of equipment operating, the equipment's engine classification, the equipment's horsepower, and the load the engine is under. Off-site emissions would be generated from haul trucks used to export waste and soil to and from the site.

The United State Environment Protection Agency's (EPA) AERMOD dispersion model (version 21112) was used to predict pollutant concentrations at existing sensitive receptors near the project site. The AERMOD dispersion model is an EPA-approved and Bay Area Air Quality Management District (BAAQMD)-recommended model for simulating the dispersion of pollutant emissions and estimating ground level concentrations of pollutants at specified receptor locations. AERMOD requires the user to input information on the source(s) of pollutants being modeled, the receptors where pollutant concentrations are modeled, and the meteorology, terrain, and other factors that affect the potential dispersion of pollutants. These variables are described below.

Modeled Construction Sources / Emission Rates

On- and off-site construction emissions were modeled as a series of area and line area sources, as shown in Table 1 and Figure 1.

Table 1: AERMOD Source Parameters

Source ID	Source Description	UTM Coordinates(A)		Size (m^2)
		X	Y	
PAREA01	Year 1: Onsite (North)	559927.10	4197543.21	3039.7
PAREA02	Year 1: Onsite (South)	559960.55	4197441.52	3,681.7
PAREA03	Year 2: Onsite (North)	559927.10	4197543.21	3,039.7
PAREA04	Year 2: Onsite (South)	559960.55	4197441.52	3,681.7
ARLN01	Year 1: Offsite (Peerless Ave)	559929.80	4197545.94	49.7 (B)
ARLN02	Year 1: Offsite (North San Pablo Ave)	559974.16	4197559.02	248.0 (B)
ARLN03	Year 1: Offsite (South Eastshore Blvd)	559972.80	4197354.53	98.9 (B)
ARLN04	Year 2: Offsite (Peerless Ave)	559929.80	4197545.94	49.7 (B)
ARLN05	Year 2: Offsite (North San Pablo Ave)	559974.16	4197559.02	248.0 (B)
ARLN06	Year 2: Offsite (South Eastshore Blvd)	559972.80	4197354.53	98.9 (B)

(A) UTM coordinates represent the southwest corner of the source.
(B) Reflects length of line area source in meters

Consistent with BAAQMD-recommendations, $PM_{2.5}$ construction exhaust emissions were presumed to be 100 percent DPM; $PM_{2.5}$ fugitive dust emissions were not modeled to determine total combined $PM_{2.5}$ exposure pursuant to BAAQMD CEQA Guidelines and guidance provided by staff of the BAAQMD's Planning and Climate Protection Division (BAAQMD 2017). An emissions rate for each source listed in Table 1 was derived from the CalEEMod emissions estimates shown in Attachment 3. The annual emissions generated during construction of the

proposed project were converted to an average emission rate in terms of grams / second per hour per hour of construction activity.[1]

On-site DPM emissions were modeled as a series of polygon area sources. Two area sources were modeled for Year 1, which reflect construction activities occurring at 1711-1755 Eastshore Boulevard. The Sacramento Metro Air Quality Management District (SMAQMD) recommends a release height of 5 meters. Since the BAAQMD does not have a recommended release height for PM_{10} exhaust emissions generated by construction equipment, the SMAQMD's release heights have been used instead (SMAQMD 2013).

Off-site DPM emissions from vehicles were modeled as a line area source. Haul trips were assumed to travel 50% of time on the segment of San Pablo Avenue east/north of the project site and the other 50% of the time on Eastshore Boulevard east/south of the project site. Hauling and vendor trips were modeled as area line sources, with a release height of 4.15 meters, the approximate height of a truck exhaust.

Meteorological Data Inputs

AERMOD requires meteorological data as an input into the model. The meteorological data is processed using AERMET, a pre-processor to AERMOD. AERMET requires surface meteorological data, upper air meteorological data, and surface parameter data such as albedo (reflectivity) and surface roughness. For the proposed project, pre-processed surface data was obtained from the BAAQMD for Chevron (Major Facility Meteorological Site), located approximately 3.9 miles north-northwest of the project site (see Figure 2). Five complete years of meteorological data from January 2013 to December 2017 were utilized. Emissions were modeled to be generated during potential construction hours only.

Terrain Inputs

Terrain was incorporated by using AERMAP (an AERMOD pre-processor) to import the elevation of the project site using data from the National Elevation Dataset (NED) with a resolution of 1/3 arcsecond.

Modeled Receptors

Receptors for the proposed project were modeled using two receptor grids, as described below.

- The first, coarse resolution receptor grid was centered on 559915.17 m Easting and 4197471.97 m Northing and had a spacing of 50 meters by 50 meters out to 750 meters in the x- and y-directions. This grid was converted to 225 discrete Cartesian receptors. This grid models overall dispersion characteristics in proximity of the project site.
- The second, fine resolution receptor grid was centered on 591229.43 m Easting and 4137437.97 m Northing and had a spacing of 10 meters by 10 meters. The grid was 100 meters wide (x axis) and 320 meters tall (y axis). This grid was converted to 456 discrete Cartesian receptors. This grid models fine-resolution dispersion characteristics to the east of the project site (i.e., along San Pablo Avenue) where sensitive residential receptors are located.

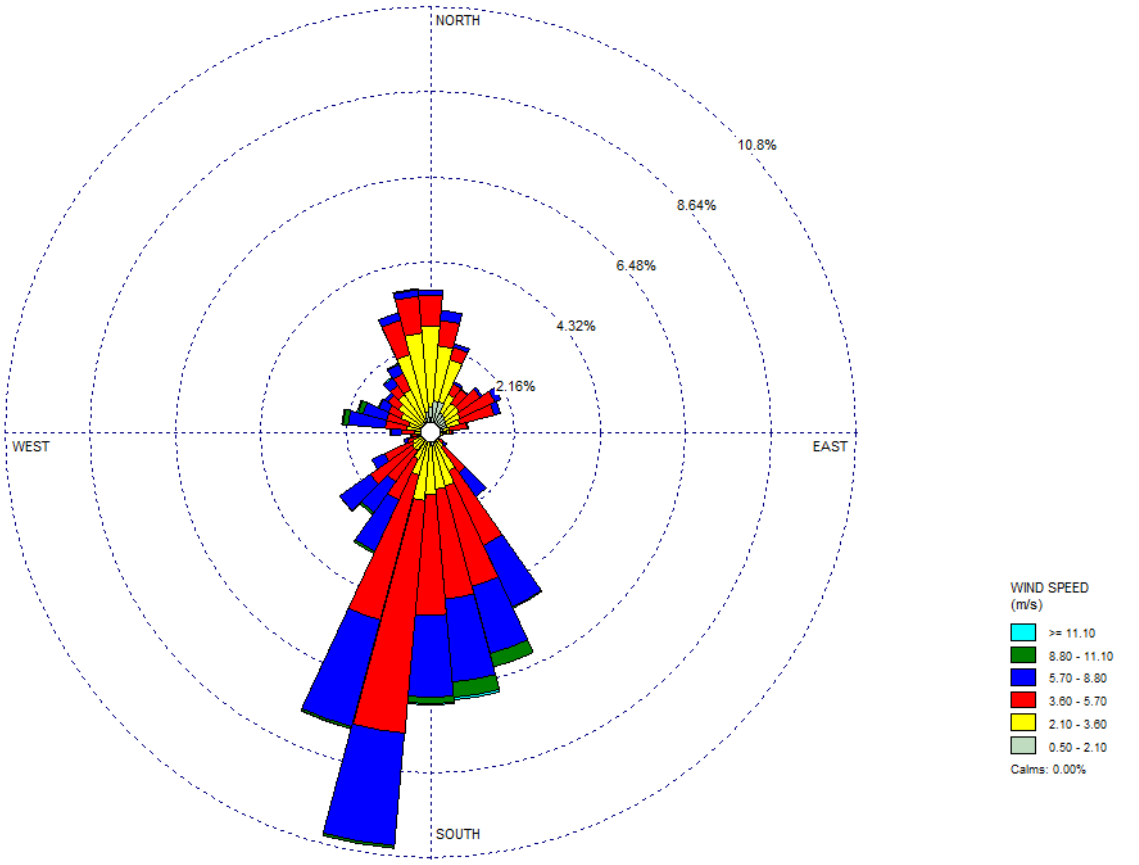
A plant blanking boundary was drawn around the project site and five (5) receptors were removed. In total, 451 discrete receptors were modeled. All modeled receptors were assigned a flagpole breathing height of 1.5 meters above ground surface, consistent with BAAQMD guidance.

[1]The average emissions rate is based on 3,328 active construction hours for Years 1 and 2; this reflects construction occurring Monday through Friday, 7 AM to 6 PM and Saturday 8 AM to 5 PM.

Figure 1: Modeled Construction Emissions Sources



Figure 2: Wind Rose for Chevron



Source: BAAQMD 2022

Health Risk Analysis Methodology

Cancer risk and non-cancer health risks to sensitive receptors within one-quarter mile of on-site sources were estimated using the U.S. EPA's AERMOD dispersion model and recommendations contained in the BAAQMD's *Health Risks Assessment Modeling Protocol,* as well as the OEHHA *Air Toxics Hot Spots Program Guidance Manual*.

Cancer Risk

Cancer risk is the calculated, pollutant-specific estimated probability of developing cancer based upon the dose and exposure to the toxic air contaminants (TAC). Cancer risk is determined by calculating the combinatory effects of the cancer potency factor (CPF) when inhaling the toxic, the daily inhalation dose, the age group the receptor is cohort to, the duration of exposure over a lifetime (70 years), and other factors such as age sensitivity and the amount of time spent at the location of exposure. Risks were assessed for the inhalation pathway (i.e., breathing) for both residential receptors. Additionally, residential receptors were assessed under a 70-year exposure duration to further detail potential risk to those under lifetime exposure. Cancer risk equations for residential receptors are summarized in Table 2 and 3.

Potential cancer risks were assessed for the two years during which construction activities would take place and sensitive receptors in proximity of the project site would be exposed to construction $PM_{2.5}$ emissions. The exposure time is consistent with the construction schedule provided by the project applicant.

Table 2: Cancer Risk Equations	
Equation 1 – Residential Risk:	$RISK_{INH.RES} = DOSE_{AIR.RES} \times CPF \times ASF \times \frac{ED}{AT} \times FAH$
Where:	
$DOSE_{AIR}$ =	Daily Inhalation Dose (mg/kg-day). See Table 3.
CPF =	Cancer Potency Factor for Inhalants (mg/kg-day). CPF is expressed as the 95th percent upper confidence limit of the slope of the dose response curve under continuous lifetime exposure conditions. The CPF for diesel exhaust is 1.1 mg/kg-day.
ASF =	Age Sensitivity Factor. ASF is a protective coefficient intended to take into account increased susceptibility to long-term health effects from early-life exposure to TACs. The recommended ASFs are 10 for the third-trimester to birth and two-year age bins, three for the two-year to nine-year and 16-year age bins, and one for receptors over 16 years of age.
ED =	Exposure Duration (years). Exposure duration characterizes the length of residency (30 Years) or employment (25 Years) of the receptor.
AT =	Averaging Time (years). A 70-year (lifetime) averaging time is used to characterize to total risk as a factor of average risk over a typical lifespan.
FAH =	Fraction at Home. FAH is the percentage of time the receptor is physically at the receptor location. Consistent with OEHHA recommendations, the FAH was set to 85% for the third-trimester to birth and two-year age bins. The two-year to 16-year age bins FAH was set to 72%. Receptors over 16 years of age had their FAH set to 73%.

Table 3: Inhalation Dose Equations	
Residential Dose	$DOSE_{AIR.RES} = C_{AIr} \times \frac{BR}{BW} \times A \times EF \times 10^{-6}$
Where:	
C_{AIR} =	Concentration of TAC in air (µg/m^3). Concentration of toxic in micrograms per one cubic meter of air. The AERMOD program is used in the study to determine concentrations of diesel particulate matter at surrounding discrete and grid receptor points.
BR/BW =	Breathing Rate ÷ Body Weight (L/kg/day). Daily breathing rate normalized to body weight. The 95th percentile breathing rate to body weight ratios are used in this study with a recommended 361 L/kg/day for the third-trimester to birth age bin and 1,090 L/kg/day for the birth to two-years age bin. The 80th percentile breathing rate to body weight ratios are used in this study with a recommended 572 for the two-years to 16-years age bin, 261 L/kg/day for the 16-years to 30-years age bin, and 233 L/kg/day for the 16-years to 70-years age bin.
A =	Inhalation Absorption Factor. Is a coefficient that reflects the fraction of chemical absorbed in studies used in the development of CPF and Reference Exposure Levels (RELs). An absorption factor of one is recommended for all chemicals.
EF =	Exposure Frequency. EF is the ratio of days in a year that a receptor is receiving the dose. The recommended EF is 0.96 characterizing an assumed 350 days a year that a residential receptor is home for some portion of the day.

Non-Cancer Risk

The chronic non-cancer hazard quotient is the calculated pollutant-specific indicator for risk of developing an adverse health effect on specific organ system(s) targeted by the identified TAC, in this DPM. The potential for exposure to result in chronic non-cancer effects is evaluated by comparing the estimated annual average air concentration to the chemical-specific, non-cancer chronic reference exposure levels (RELs). The REL is a concentration below which there is assumed to be no observable adverse health impact to a target organ system. When calculated

for a single chemical, the comparison yields a ratio termed a hazard quotient. To evaluate the potential for adverse chronic non-cancer health effects from simultaneous exposure to multiple chemicals, the hazard quotients for all chemicals are summed, yielding a hazard index. The chronic REL for DPM was established by OEHHA as 5 µg/m^3. For an acute hazard quotient, the one-hour maximum concentration is divided by the acute REL for the substance; however, there is no acute REL for DPM.

Chronic non-cancer risks are considered significant if a project's TAC emissions result in a hazard index greater than or equal to one. Non-cancer risk equations are summarized in Table 4.

Table 4: Non-Cancer Risk Equation	
Chronic Hazard Quotient:	$HI_{DPM} = \frac{C_{DPM}}{REL_{AAC}}$
Where:	
HI_{DPM} =	Hazard Index; an expression of the potential for non-cancer health effects.
C_{DPM} =	Annual average DPM concentration (µg/m^3).
REL_{DPM} =	Reference exposure level (REL) for DPM; the DPM concentration at which no adverse health effects are anticipated.

References

The following references were used to prepare this methodology:

Bay Area Air Quality Management District (BAAQMD) 2018. Personal communication. Phone call. Alison Kirk, Senior Environmental Planner, BAAQMD, with Chris Dugan, MIG. June 21, 2018.

_____2022. "AERMOD-Ready Meteorological Data." Updated November 15, 2022. Web. Accessed January 20, 2023. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/ceqa-modeling-data

Office of Environmental Health Hazard Assessment (OEHHA) 2015. *Air Toxics Hot Spots Program Guidance Manual*. Sacramento, CA. February 2015.

Sacramento Metro Air Quality Management District (SMAQMD) 2013. "CEQA Guide". Chapter 3. Dispersion Modeling of Construction-Generated PM_{10} Emissions. Revised July 2013. Web. http://www.airquality.org/LandUseTransportation/Documents/Ch3PMDispersionModelingGuidanceFINAL7-2013.pdf

Attachment 5

AERMOD Output Files

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** Lakes Environmental AERMOD MPI
**
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**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 1/25/2023
** File: C:\Lakes\El Cerrito_EastshoreBlvd\El
Cerrito_EastshoreBlvd.ADI
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**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
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CO STARTING
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Cerrito_EastshoreBlvd.isc
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 4623264 SF-Bay_Area_MSA
   POLLUTID PM_2.5
   FLAGPOLE 1.50
   RUNORNOT RUN
   ERRORFIL "El Cerrito_EastshoreBlvd.err"
CO FINISHED
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** AERMOD Source Pathway
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** Source ID - Type - X Coord. - Y Coord. **
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   LOCATION PAREA2       AREAPOLY   559960.547  4197441.525
15.150
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   LOCATION PAREA3       AREAPOLY   559927.100  4197543.210
15.360
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** 559974.117, 4197558.909, 16.24, 4.15
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** 559996.768, 4197564.898, 16.72, 4.15
** 559988.985, 4197582.372, 16.78, 4.15
** 559981.128, 4197605.199, 16.80, 4.15
** 559893.090, 4197763.735, 17.16, 4.15
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   LOCATION A0000009     AREA     560002.696 4197587.092 16.71
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** 559945.300, 4197556.530, 15.55, 4.15
** 559974.120, 4197558.910, 16.24, 4.15
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29.000  -114.007
   SRCPARAM A0000009     1.5116E-08     4.150    24.141
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   SRCPARAM A0000018     3.7301E-08     4.150    28.918
11.000    -4.721
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29.000  -114.005
   SRCPARAM A0000021     1.4156E-08     4.150    24.145
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29.000  -119.046
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88.473
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   URBANSRC ALL
   SRCGROUP Y1_ALL   A0000013 A0000014 A0000015 A0000007 A0000008
A0000009
   SRCGROUP Y1_ALL   A0000010 PAREA1 PAREA2 A0000011 A0000012
   SRCGROUP Y1_ON    PAREA1 PAREA2
   SRCGROUP Y1_OFF   A0000013 A0000014 A0000015 A0000007 A0000008
A0000009
   SRCGROUP Y1_OFF   A0000010 A0000011 A0000012
   SRCGROUP Y2_ALL   PAREA3 PAREA4 A0000016 A0000017 A0000018
A0000019 A0000020
   SRCGROUP Y2_ALL   A0000021 A0000022 A0000023 A0000024
   SRCGROUP Y2_ON    PAREA3 PAREA4
   SRCGROUP Y2_OFF   A0000016 A0000017 A0000018 A0000019 A0000020
A0000021
   SRCGROUP Y2_OFF   A0000022 A0000023 A0000024
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "El Cerrito_EastshoreBlvd.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "Z:\Shared\San Jose\Env\16240_El Cerrito Eastshore
Blvd Apt AQ Constrn HRA & NOI Studies\Project-Data\AERMOD\Chevron
\CHEVRON_2013-2017_compiled.sfc"
   PROFFILE "Z:\Shared\San Jose\Env\16240_El Cerrito Eastshore
Blvd Apt AQ Constrn HRA & NOI Studies\Project-Data\AERMOD\Chevron
\CHEVRON_2013-2017_compiled.PFL"
   SURFDATA 23230 2013 OAKLAND/WSO_AP
   UAIRDATA 23230 2013 OAKLAND/WSO_AP
   SITEDATA 2703 2013
   PROFBASE 1.5 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
```

```
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD Y1_ALL "El Cerrito_EastshoreBlvd.AD
\PE00G001.PLT" 31
   PLOTFILE PERIOD Y1_ON "El Cerrito_EastshoreBlvd.AD
\PE00G002.PLT" 32
   PLOTFILE PERIOD Y1_OFF "El Cerrito_EastshoreBlvd.AD
\PE00G003.PLT" 33
   PLOTFILE PERIOD Y2_ALL "El Cerrito_EastshoreBlvd.AD
\PE00G004.PLT" 34
   PLOTFILE PERIOD Y2_ON "El Cerrito_EastshoreBlvd.AD
\PE00G005.PLT" 35
   PLOTFILE PERIOD Y2_OFF "El Cerrito_EastshoreBlvd.AD
\PE00G006.PLT" 36
   SUMMFILE "El Cerrito_EastshoreBlvd.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     244       PFLCNV: Turbulence data is being used w/o
ADJ_U* option       SigA Data

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\El
Cerrito_EastshoreBlvd\El Cerrito_EastshoreBlvd.isc       ***
01/25/23
 *** AERMET - VERSION  18081 ***   ***
***        15:52:49

PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  SigA
Data

                                              ***     MODEL SETUP
OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration
Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    22
Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   4623264.0 ;  Urban Roughness Length =
1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP
substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates PERIOD Averages Only

 **This Run Includes:     22 Source(s);       6 Source Group(s);
and     463 Receptor(s)

               with:      0 POINT(s), including
```

```
                              0 POINTCAP(s) and      0 POINTHOR(s)
                  and:        0 VOLUME source(s)
                  and:       22 AREA type source(s)
                  and:        0 LINE source(s)
                  and:        0 RLINE/RLINEXT source(s)
                  and:        0 OPENPIT source(s)
                  and:        0 BUOYANT LINE source(s) with a total
of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  18081

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs External File(s) of High Values for
Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked
Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:
c for Calm Hours

m for Missing Hours

b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =
1.50 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units =
GRAMS/SEC                                   ;  Emission Rate Unit
Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of
RAM.

 **Input Runstream File:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   El Cerrito_EastshoreBlvd.err
 **File for Summary of Results:   El Cerrito_EastshoreBlvd.sum
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
A0000013	0	0.39844E-07	559934.9	4197543.9	15.4	4.15	7.69	11.00	-68.26	0.00	YES	
A0000014	0	0.39844E-07	559934.1	4197547.8	15.4	4.15	13.11	11.00	-15.26	0.00	YES	
A0000015	0	0.39844E-07	559945.7	4197551.1	15.5	4.15	28.92	11.00	-4.71	0.00	YES	
A0000007	0	0.15116E-07	559977.8	4197545.0	16.4	4.15	23.36	29.00	-14.56	0.00	YES	
A0000008	0	0.15116E-07	560010.0	4197570.8	16.7	4.15	19.13	29.00	-114.01	0.00	YES	
A0000009	0	0.15116E-07	560002.7	4197587.1	16.7	4.15	24.14	29.00	-108.99	0.00	YES	
A0000010	0	0.15116E-07	559993.8	4197612.2	16.7	4.15	181.34	29.00	-119.04	0.00	YES	
A0000011	0	0.19065E-07	559971.0	4197343.2	14.4	4.15	9.20	23.00	8.97	0.00	YES	
A0000012	0	0.19065E-07	559970.4	4197352.8	14.5	4.15	89.70	23.00	88.47	0.00	YES	
A0000016	0	0.37301E-07	559934.9	4197543.9	15.4	4.15	7.69	11.00	-68.24	0.00	YES	
A0000017	0	0.37301E-07	559934.1	4197547.8	15.4	4.15	13.11	11.00	-15.26	0.00	YES	
A0000018	0	0.37301E-07	559945.8	4197551.0	15.5	4.15	28.92	11.00	-4.72	0.00	YES	
A0000019	0	0.14156E-07	559977.8	4197545.0	16.4	4.15	23.36	29.00	-14.58	0.00	YES	

A0000020	0	0.14156E-07	560010.0	4197570.8	16.7		
4.15	19.12	29.00	-114.00	0.00	YES		
A0000021	0	0.14156E-07	560002.7	4197587.1	16.7		
4.15	24.14	29.00	-109.00	0.00	YES		
A0000022	0	0.14156E-07	559993.8	4197612.2	16.7		
4.15	181.34	29.00	-119.05	0.00	YES		
A0000023	0	0.17849E-07	559971.0	4197343.2	14.4		
4.15	9.19	23.00	9.01	0.00	YES		
A0000024	0	0.17849E-07	559970.4	4197352.8	14.5		
4.15	89.70	23.00	88.47	0.00	YES		

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** AREAPOLY SOURCE DATA ***

RELEASE SOURCE ID	NUMBER PART. CATS.	EMISSION RATE INIT. (GRAMS/SEC /METER**2)	URBAN	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	SZ (METERS)	SOURCE SCALAR VARY BY
PAREA1	0	0.38195E-06	559927.1	4197543.2	15.4	5.00	9	0.00	YES	
PAREA2	0	0.38189E-06	559960.5	4197441.5	15.2	5.00	5	0.00	YES	
PAREA3	0	0.36779E-06	559927.1	4197543.2	15.4	5.00	9	0.00	YES	
PAREA4	0	0.36802E-06	559960.6	4197441.5	15.2	5.00	5	0.00	YES	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
Y1_ALL	PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,
Y1_ON	PAREA1 , PAREA2 ,
Y1_OFF	A0000013 , A0000014 , A0000015 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,
Y2_ALL	PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,
Y2_ON	PAREA3 , PAREA4 ,
Y2_OFF	A0000016 , A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	4623264.	PAREA1 , PAREA2 , PAREA3 , PAREA4 , A0000013 , A0000014 , A0000015 , A0000007 ,
		A0000008 , A0000009 , A0000010 , A0000011 , A0000012 , A0000016 , A0000017 , A0000018 ,
		A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(559565.2, 4197122.0, 9.5, 306.4, 1.5);
(559615.2, 4197122.0, 10.1, 306.4, 1.5);
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(559715.2, 4197122.0, 10.3, 306.4, 1.5);
(559765.2, 4197122.0, 10.6, 306.4, 1.5);
(559815.2, 4197122.0, 11.1, 306.4, 1.5);
(559865.2, 4197122.0, 11.6, 306.4, 1.5);
(559915.2, 4197122.0, 12.6, 306.4, 1.5);
(559965.2, 4197122.0, 18.6, 306.4, 1.5);
(560015.2, 4197122.0, 16.4, 306.4, 1.5);
(560065.2, 4197122.0, 14.2, 306.4, 1.5);
(560115.2, 4197122.0, 15.2, 306.4, 1.5);
(560165.2, 4197122.0, 15.9, 306.4, 1.5);
(560215.2, 4197122.0, 17.2, 306.4, 1.5);
(560265.2, 4197122.0, 17.8, 306.4, 1.5);
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(559615.2, 4197172.0, 10.8, 306.4, 1.5);
(559665.2, 4197172.0, 11.2, 306.4, 1.5);
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(560015.2, 4197172.0, 15.3, 306.4, 1.5);
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(560265.2, 4197172.0, 17.5, 306.4, 1.5);
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(559615.2, 4197222.0, 11.6, 306.4, 1.5);
(559665.2, 4197222.0, 11.7, 306.4, 1.5);
(559715.2, 4197222.0, 11.7, 306.4, 1.5);
(559765.2, 4197222.0, 11.9, 306.4, 1.5);

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     ( 560015.2, 4197272.0,      14.5,     306.4,       1.5);
( 560065.2, 4197272.0,      15.0,     306.4,       1.5);
     ( 560115.2, 4197272.0,      16.0,     306.4,       1.5);
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( 560265.2, 4197272.0,      17.6,     306.4,       1.5);
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( 559615.2, 4197322.0,      12.9,     306.4,       1.5);
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     ( 560015.2, 4197322.0,      14.6,     306.4,       1.5);
( 560065.2, 4197322.0,      15.3,     306.4,       1.5);
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( 559915.2, 4197372.0,      18.8,     306.4,       1.5);
     ( 560015.2, 4197372.0,      15.1,     306.4,       1.5);
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     ( 560115.2, 4197372.0,      16.9,     306.4,       1.5);
( 560165.2, 4197372.0,      17.3,     306.4,       1.5);
     ( 560215.2, 4197372.0,      17.2,     306.4,       1.5);
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( 559615.2, 4197422.0,      13.9,     306.4,       1.5);
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

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(560015.2, 4197422.0, 15.5, 306.4, 1.5);
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(560015.2, 4197522.0, 16.6, 306.4, 1.5);

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( 560065.2, 4197522.0,      17.3,     306.4,       1.5);
     ( 560115.2, 4197522.0,      17.7,     306.4,       1.5);
( 560165.2, 4197522.0,      18.6,     306.4,       1.5);
     ( 560215.2, 4197522.0,      19.1,     306.4,       1.5);
( 560265.2, 4197522.0,      20.1,     306.4,       1.5);
     ( 559565.2, 4197572.0,      15.1,     306.4,       1.5);
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( 559715.2, 4197572.0,      14.7,     306.4,       1.5);
     ( 559765.2, 4197572.0,      18.0,     306.4,       1.5);
( 559815.2, 4197572.0,      17.6,     306.4,       1.5);
     ( 559865.2, 4197572.0,      15.3,     306.4,       1.5);
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     ( 560165.2, 4197572.0,      18.9,     306.4,       1.5);
( 560215.2, 4197572.0,      19.3,     306.4,       1.5);
     ( 560265.2, 4197572.0,      20.5,     306.4,       1.5);
( 559565.2, 4197622.0,      14.9,     306.4,       1.5);
     ( 559615.2, 4197622.0,      14.9,     306.4,       1.5);
( 559665.2, 4197622.0,      14.7,     306.4,       1.5);
     ( 559715.2, 4197622.0,      15.5,     306.4,       1.5);
( 559765.2, 4197622.0,      20.2,     306.4,       1.5);
     ( 559815.2, 4197622.0,      15.7,     306.4,       1.5);
( 559865.2, 4197622.0,      16.2,     306.4,       1.5);
     ( 559915.2, 4197622.0,      15.9,     306.4,       1.5);
( 559965.2, 4197622.0,      16.8,     306.4,       1.5);
     ( 560015.2, 4197622.0,      17.5,     306.4,       1.5);
( 560065.2, 4197622.0,      17.7,     306.4,       1.5);
     ( 560115.2, 4197622.0,      18.8,     306.4,       1.5);
( 560165.2, 4197622.0,      18.6,     306.4,       1.5);
     ( 560215.2, 4197622.0,      19.9,     306.4,       1.5);
( 560265.2, 4197622.0,      21.1,     306.4,       1.5);
     ( 559565.2, 4197672.0,      14.6,     306.4,       1.5);
( 559615.2, 4197672.0,      15.5,     306.4,       1.5);
     ( 559665.2, 4197672.0,      15.5,     306.4,       1.5);
( 559715.2, 4197672.0,      21.8,     306.4,       1.5);
     ( 559765.2, 4197672.0,      21.1,     306.4,       1.5);
( 559815.2, 4197672.0,      15.5,     306.4,       1.5);
     ( 559865.2, 4197672.0,      16.4,     306.4,       1.5);
( 559915.2, 4197672.0,      16.5,     306.4,       1.5);
     ( 559965.2, 4197672.0,      17.1,     306.4,       1.5);
( 560015.2, 4197672.0,      18.5,     306.4,       1.5);
     ( 560065.2, 4197672.0,      19.0,     306.4,       1.5);
( 560115.2, 4197672.0,      19.6,     306.4,       1.5);
     ( 560165.2, 4197672.0,      19.4,     306.4,       1.5);
( 560215.2, 4197672.0,      20.0,     306.4,       1.5);
     ( 560265.2, 4197672.0,      22.2,     306.4,       1.5);
( 559565.2, 4197722.0,      16.0,     306.4,       1.5);
     ( 559615.2, 4197722.0,      15.6,     306.4,       1.5);
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( 559665.2, 4197722.0,      18.3,     306.4,       1.5);
     ( 559715.2, 4197722.0,      21.8,     306.4,       1.5);
( 559765.2, 4197722.0,      16.8,     306.4,       1.5);
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(559815.2, 4197722.0, 16.1, 306.4, 1.5);
(559865.2, 4197722.0, 16.9, 306.4, 1.5);
(559915.2, 4197722.0, 17.0, 306.4, 1.5);
(559965.2, 4197722.0, 18.0, 306.4, 1.5);
(560015.2, 4197722.0, 19.4, 306.4, 1.5);
(560065.2, 4197722.0, 19.5, 306.4, 1.5);
(560115.2, 4197722.0, 20.0, 306.4, 1.5);
(560165.2, 4197722.0, 20.4, 306.4, 1.5);
(560215.2, 4197722.0, 21.9, 306.4, 1.5);
(560265.2, 4197722.0, 26.1, 306.4, 1.5);
(559565.2, 4197772.0, 15.8, 306.4, 1.5);
(559615.2, 4197772.0, 16.0, 306.4, 1.5);
(559665.2, 4197772.0, 16.2, 306.4, 1.5);
(559715.2, 4197772.0, 16.6, 306.4, 1.5);
(559765.2, 4197772.0, 16.3, 306.4, 1.5);
(559815.2, 4197772.0, 16.3, 306.4, 1.5);
(559865.2, 4197772.0, 16.9, 306.4, 1.5);
(559915.2, 4197772.0, 17.1, 306.4, 1.5);
(559965.2, 4197772.0, 18.4, 306.4, 1.5);
(560015.2, 4197772.0, 19.4, 306.4, 1.5);
(560065.2, 4197772.0, 20.2, 306.4, 1.5);
(560115.2, 4197772.0, 20.7, 306.4, 1.5);
(560165.2, 4197772.0, 21.4, 306.4, 1.5);
(560215.2, 4197772.0, 26.3, 306.4, 1.5);
(560265.2, 4197772.0, 31.2, 306.4, 1.5);
(559565.2, 4197822.0, 16.2, 306.4, 1.5);
(559615.2, 4197822.0, 20.9, 306.4, 1.5);
(559665.2, 4197822.0, 20.8, 306.4, 1.5);
(559715.2, 4197822.0, 17.5, 306.4, 1.5);
(559765.2, 4197822.0, 16.5, 306.4, 1.5);
(559815.2, 4197822.0, 17.2, 306.4, 1.5);
(559865.2, 4197822.0, 17.6, 306.4, 1.5);
(559915.2, 4197822.0, 17.7, 306.4, 1.5);
(559965.2, 4197822.0, 18.4, 306.4, 1.5);
(560015.2, 4197822.0, 20.2, 306.4, 1.5);

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( 560065.2, 4197822.0,      20.5,     306.4,       1.5);
     ( 560115.2, 4197822.0,      21.3,     306.4,       1.5);
( 560165.2, 4197822.0,      22.7,     306.4,       1.5);
     ( 560215.2, 4197822.0,      28.0,     306.4,       1.5);
( 560265.2, 4197822.0,      34.7,     306.4,       1.5);
     ( 560000.6, 4197301.1,      14.4,     306.4,       1.5);
( 560010.6, 4197301.1,      14.6,     306.4,       1.5);
     ( 560020.6, 4197301.1,      14.9,     306.4,       1.5);
( 560030.6, 4197301.1,      15.1,     306.4,       1.5);
     ( 560040.6, 4197301.1,      15.2,     306.4,       1.5);
( 560050.6, 4197301.1,      15.2,     306.4,       1.5);
     ( 560060.6, 4197301.1,      15.2,     306.4,       1.5);
( 560070.6, 4197301.1,      15.1,     306.4,       1.5);
     ( 560080.6, 4197301.1,      15.1,     306.4,       1.5);
( 560090.6, 4197301.1,      15.3,     306.4,       1.5);
     ( 560100.6, 4197301.1,      15.4,     306.4,       1.5);
( 560000.6, 4197311.1,      14.4,     306.4,       1.5);
     ( 560010.6, 4197311.1,      14.5,     306.4,       1.5);
( 560020.6, 4197311.1,      14.7,     306.4,       1.5);
     ( 560030.6, 4197311.1,      14.8,     306.4,       1.5);
( 560040.6, 4197311.1,      15.0,     306.4,       1.5);
     ( 560050.6, 4197311.1,      15.1,     306.4,       1.5);
( 560060.6, 4197311.1,      15.1,     306.4,       1.5);
     ( 560070.6, 4197311.1,      15.2,     306.4,       1.5);
( 560080.6, 4197311.1,      15.2,     306.4,       1.5);
     ( 560090.6, 4197311.1,      15.3,     306.4,       1.5);
( 560100.6, 4197311.1,      15.4,     306.4,       1.5);
     ( 560000.6, 4197321.1,      14.4,     306.4,       1.5);
( 560010.6, 4197321.1,      14.5,     306.4,       1.5);
     ( 560020.6, 4197321.1,      14.7,     306.4,       1.5);
( 560030.6, 4197321.1,      14.8,     306.4,       1.5);
     ( 560040.6, 4197321.1,      14.9,     306.4,       1.5);
( 560050.6, 4197321.1,      15.0,     306.4,       1.5);
     ( 560060.6, 4197321.1,      15.2,     306.4,       1.5);
( 560070.6, 4197321.1,      15.4,     306.4,       1.5);
     ( 560080.6, 4197321.1,      15.4,     306.4,       1.5);
( 560090.6, 4197321.1,      15.5,     306.4,       1.5);
     ( 560100.6, 4197321.1,      15.5,     306.4,       1.5);
( 560000.6, 4197331.1,      14.5,     306.4,       1.5);
     ( 560010.6, 4197331.1,      14.6,     306.4,       1.5);
( 560020.6, 4197331.1,      14.8,     306.4,       1.5);
     ( 560030.6, 4197331.1,      14.9,     306.4,       1.5);
( 560040.6, 4197331.1,      14.9,     306.4,       1.5);
     ( 560050.6, 4197331.1,      15.1,     306.4,       1.5);
( 560060.6, 4197331.1,      15.4,     306.4,       1.5);
     ( 560070.6, 4197331.1,      15.7,     306.4,       1.5);
( 560080.6, 4197331.1,      15.8,     306.4,       1.5);
     ( 560090.6, 4197331.1,      15.8,     306.4,       1.5);
( 560100.6, 4197331.1,      15.8,     306.4,       1.5);
     ( 560000.6, 4197341.1,      14.5,     306.4,       1.5);
( 560010.6, 4197341.1,      14.7,     306.4,       1.5);
     ( 560020.6, 4197341.1,      14.9,     306.4,       1.5);
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( 560030.6, 4197341.1,      14.9,     306.4,       1.5);
     ( 560040.6, 4197341.1,      15.1,     306.4,       1.5);
( 560050.6, 4197341.1,      15.3,     306.4,       1.5);
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(560060.6, 4197341.1, 15.6, 306.4, 1.5);
(560070.6, 4197341.1, 15.9, 306.4, 1.5);
(560080.6, 4197341.1, 16.1, 306.4, 1.5);
(560090.6, 4197341.1, 16.2, 306.4, 1.5);
(560100.6, 4197341.1, 16.3, 306.4, 1.5);
(560000.6, 4197351.1, 14.6, 306.4, 1.5);
(560010.6, 4197351.1, 14.7, 306.4, 1.5);
(560020.6, 4197351.1, 15.0, 306.4, 1.5);
(560030.6, 4197351.1, 15.2, 306.4, 1.5);
(560040.6, 4197351.1, 15.2, 306.4, 1.5);
(560050.6, 4197351.1, 15.5, 306.4, 1.5);
(560060.6, 4197351.1, 15.8, 306.4, 1.5);
(560070.6, 4197351.1, 16.0, 306.4, 1.5);
(560080.6, 4197351.1, 16.2, 306.4, 1.5);
(560090.6, 4197351.1, 16.5, 306.4, 1.5);
(560100.6, 4197351.1, 16.7, 306.4, 1.5);
(560000.6, 4197361.1, 14.7, 306.4, 1.5);
(560010.6, 4197361.1, 14.9, 306.4, 1.5);
(560020.6, 4197361.1, 15.2, 306.4, 1.5);
(560030.6, 4197361.1, 15.3, 306.4, 1.5);
(560040.6, 4197361.1, 15.4, 306.4, 1.5);
(560050.6, 4197361.1, 15.7, 306.4, 1.5);
(560060.6, 4197361.1, 16.0, 306.4, 1.5);
(560070.6, 4197361.1, 16.2, 306.4, 1.5);
(560080.6, 4197361.1, 16.4, 306.4, 1.5);
(560090.6, 4197361.1, 16.6, 306.4, 1.5);
(560100.6, 4197361.1, 16.7, 306.4, 1.5);
(560000.6, 4197371.1, 14.8, 306.4, 1.5);
(560010.6, 4197371.1, 15.0, 306.4, 1.5);
(560020.6, 4197371.1, 15.2, 306.4, 1.5);
(560030.6, 4197371.1, 15.4, 306.4, 1.5);
(560040.6, 4197371.1, 15.6, 306.4, 1.5);
(560050.6, 4197371.1, 15.8, 306.4, 1.5);
(560060.6, 4197371.1, 16.1, 306.4, 1.5);
(560070.6, 4197371.1, 16.4, 306.4, 1.5);

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( 560080.6, 4197371.1,      16.6,     306.4,       1.5);
     ( 560090.6, 4197371.1,      16.7,     306.4,       1.5);
( 560100.6, 4197371.1,      16.8,     306.4,       1.5);
     ( 560000.6, 4197381.1,      14.8,     306.4,       1.5);
( 560010.6, 4197381.1,      15.0,     306.4,       1.5);
     ( 560020.6, 4197381.1,      15.3,     306.4,       1.5);
( 560030.6, 4197381.1,      15.5,     306.4,       1.5);
     ( 560040.6, 4197381.1,      15.7,     306.4,       1.5);
( 560050.6, 4197381.1,      15.9,     306.4,       1.5);
     ( 560060.6, 4197381.1,      16.2,     306.4,       1.5);
( 560070.6, 4197381.1,      16.5,     306.4,       1.5);
     ( 560080.6, 4197381.1,      16.7,     306.4,       1.5);
( 560090.6, 4197381.1,      16.8,     306.4,       1.5);
     ( 560100.6, 4197381.1,      16.8,     306.4,       1.5);
( 560000.6, 4197391.1,      14.8,     306.4,       1.5);
     ( 560010.6, 4197391.1,      15.1,     306.4,       1.5);
( 560020.6, 4197391.1,      15.3,     306.4,       1.5);
     ( 560030.6, 4197391.1,      15.5,     306.4,       1.5);
( 560040.6, 4197391.1,      15.7,     306.4,       1.5);
     ( 560050.6, 4197391.1,      15.9,     306.4,       1.5);
( 560060.6, 4197391.1,      16.2,     306.4,       1.5);
     ( 560070.6, 4197391.1,      16.5,     306.4,       1.5);
( 560080.6, 4197391.1,      16.7,     306.4,       1.5);
     ( 560090.6, 4197391.1,      16.8,     306.4,       1.5);
( 560100.6, 4197391.1,      16.9,     306.4,       1.5);
     ( 560000.6, 4197401.1,      15.0,     306.4,       1.5);
( 560010.6, 4197401.1,      15.2,     306.4,       1.5);
     ( 560020.6, 4197401.1,      15.4,     306.4,       1.5);
( 560030.6, 4197401.1,      15.6,     306.4,       1.5);
     ( 560040.6, 4197401.1,      15.7,     306.4,       1.5);
( 560050.6, 4197401.1,      15.9,     306.4,       1.5);
     ( 560060.6, 4197401.1,      16.1,     306.4,       1.5);
( 560070.6, 4197401.1,      16.4,     306.4,       1.5);
     ( 560080.6, 4197401.1,      16.7,     306.4,       1.5);
( 560090.6, 4197401.1,      16.9,     306.4,       1.5);
     ( 560100.6, 4197401.1,      16.9,     306.4,       1.5);
( 560000.6, 4197411.1,      15.1,     306.4,       1.5);
     ( 560010.6, 4197411.1,      15.4,     306.4,       1.5);
( 560020.6, 4197411.1,      15.5,     306.4,       1.5);
     ( 560030.6, 4197411.1,      15.6,     306.4,       1.5);
( 560040.6, 4197411.1,      15.8,     306.4,       1.5);
     ( 560050.6, 4197411.1,      16.0,     306.4,       1.5);
( 560060.6, 4197411.1,      16.2,     306.4,       1.5);
     ( 560070.6, 4197411.1,      16.6,     306.4,       1.5);
( 560080.6, 4197411.1,      16.8,     306.4,       1.5);
     ( 560090.6, 4197411.1,      16.9,     306.4,       1.5);
( 560100.6, 4197411.1,      16.8,     306.4,       1.5);
     ( 560000.6, 4197421.1,      15.2,     306.4,       1.5);
( 560010.6, 4197421.1,      15.5,     306.4,       1.5);
     ( 560020.6, 4197421.1,      15.6,     306.4,       1.5);
( 560030.6, 4197421.1,      15.7,     306.4,       1.5);
     ( 560040.6, 4197421.1,      15.9,     306.4,       1.5);
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( 560050.6, 4197421.1,      16.1,     306.4,       1.5);
     ( 560060.6, 4197421.1,      16.5,     306.4,       1.5);
( 560070.6, 4197421.1,      16.7,     306.4,       1.5);
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(560080.6, 4197421.1, 16.9, 306.4, 1.5);
(560090.6, 4197421.1, 16.9, 306.4, 1.5);
(560100.6, 4197421.1, 16.8, 306.4, 1.5);
(560000.6, 4197431.1, 15.2, 306.4, 1.5);
(560010.6, 4197431.1, 15.4, 306.4, 1.5);
(560020.6, 4197431.1, 15.6, 306.4, 1.5);
(560030.6, 4197431.1, 15.7, 306.4, 1.5);
(560040.6, 4197431.1, 15.9, 306.4, 1.5);
(560050.6, 4197431.1, 16.3, 306.4, 1.5);
(560060.6, 4197431.1, 16.6, 306.4, 1.5);
(560070.6, 4197431.1, 16.8, 306.4, 1.5);
(560080.6, 4197431.1, 16.9, 306.4, 1.5);
(560090.6, 4197431.1, 16.8, 306.4, 1.5);
(560100.6, 4197431.1, 17.0, 306.4, 1.5);
(560000.6, 4197441.1, 15.3, 306.4, 1.5);
(560010.6, 4197441.1, 15.4, 306.4, 1.5);
(560020.6, 4197441.1, 15.6, 306.4, 1.5);
(560030.6, 4197441.1, 15.7, 306.4, 1.5);
(560040.6, 4197441.1, 16.0, 306.4, 1.5);
(560050.6, 4197441.1, 16.4, 306.4, 1.5);
(560060.6, 4197441.1, 16.7, 306.4, 1.5);
(560070.6, 4197441.1, 16.9, 306.4, 1.5);
(560080.6, 4197441.1, 16.9, 306.4, 1.5);
(560090.6, 4197441.1, 16.8, 306.4, 1.5);
(560100.6, 4197441.1, 17.4, 306.4, 1.5);
(560000.6, 4197451.1, 15.4, 306.4, 1.5);
(560010.6, 4197451.1, 15.6, 306.4, 1.5);
(560020.6, 4197451.1, 15.8, 306.4, 1.5);
(560030.6, 4197451.1, 15.9, 306.4, 1.5);
(560040.6, 4197451.1, 16.2, 306.4, 1.5);
(560050.6, 4197451.1, 16.6, 306.4, 1.5);
(560060.6, 4197451.1, 16.8, 306.4, 1.5);
(560070.6, 4197451.1, 16.9, 306.4, 1.5);
(560080.6, 4197451.1, 16.8, 306.4, 1.5);
(560090.6, 4197451.1, 16.9, 306.4, 1.5);

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( 560100.6, 4197451.1,      17.4,     306.4,       1.5);
     ( 560000.6, 4197461.1,      15.5,     306.4,       1.5);
( 560010.6, 4197461.1,      15.9,     306.4,       1.5);
     ( 560020.6, 4197461.1,      16.2,     306.4,       1.5);
( 560030.6, 4197461.1,      16.3,     306.4,       1.5);
     ( 560040.6, 4197461.1,      16.5,     306.4,       1.5);
( 560050.6, 4197461.1,      16.7,     306.4,       1.5);
     ( 560060.6, 4197461.1,      16.9,     306.4,       1.5);
( 560070.6, 4197461.1,      16.8,     306.4,       1.5);
     ( 560080.6, 4197461.1,      16.8,     306.4,       1.5);
( 560090.6, 4197461.1,      17.0,     306.4,       1.5);
     ( 560100.6, 4197461.1,      17.3,     306.4,       1.5);
( 560000.6, 4197471.1,      15.7,     306.4,       1.5);
     ( 560010.6, 4197471.1,      16.2,     306.4,       1.5);
( 560020.6, 4197471.1,      16.5,     306.4,       1.5);
     ( 560030.6, 4197471.1,      16.6,     306.4,       1.5);
( 560040.6, 4197471.1,      16.7,     306.4,       1.5);
     ( 560050.6, 4197471.1,      16.8,     306.4,       1.5);
( 560060.6, 4197471.1,      16.9,     306.4,       1.5);
     ( 560070.6, 4197471.1,      16.7,     306.4,       1.5);
( 560080.6, 4197471.1,      16.9,     306.4,       1.5);
     ( 560090.6, 4197471.1,      17.2,     306.4,       1.5);
( 560100.6, 4197471.1,      17.3,     306.4,       1.5);
     ( 560000.6, 4197481.1,      15.8,     306.4,       1.5);
( 560010.6, 4197481.1,      16.4,     306.4,       1.5);
     ( 560020.6, 4197481.1,      16.7,     306.4,       1.5);
( 560030.6, 4197481.1,      16.7,     306.4,       1.5);
     ( 560040.6, 4197481.1,      16.7,     306.4,       1.5);
( 560050.6, 4197481.1,      16.9,     306.4,       1.5);
     ( 560060.6, 4197481.1,      16.8,     306.4,       1.5);
( 560070.6, 4197481.1,      16.9,     306.4,       1.5);
     ( 560080.6, 4197481.1,      17.2,     306.4,       1.5);
( 560090.6, 4197481.1,      17.4,     306.4,       1.5);
     ( 560100.6, 4197481.1,      17.3,     306.4,       1.5);
( 560000.6, 4197491.1,      16.0,     306.4,       1.5);
     ( 560010.6, 4197491.1,      16.6,     306.4,       1.5);
( 560020.6, 4197491.1,      16.7,     306.4,       1.5);
     ( 560030.6, 4197491.1,      16.7,     306.4,       1.5);
( 560040.6, 4197491.1,      16.8,     306.4,       1.5);
     ( 560050.6, 4197491.1,      16.8,     306.4,       1.5);
( 560060.6, 4197491.1,      16.8,     306.4,       1.5);
     ( 560070.6, 4197491.1,      17.2,     306.4,       1.5);
( 560080.6, 4197491.1,      17.5,     306.4,       1.5);
     ( 560090.6, 4197491.1,      17.6,     306.4,       1.5);
( 560100.6, 4197491.1,      17.4,     306.4,       1.5);
     ( 560000.6, 4197501.1,      16.1,     306.4,       1.5);
( 560010.6, 4197501.1,      16.5,     306.4,       1.5);
     ( 560020.6, 4197501.1,      16.6,     306.4,       1.5);
( 560030.6, 4197501.1,      16.7,     306.4,       1.5);
     ( 560040.6, 4197501.1,      16.8,     306.4,       1.5);
( 560050.6, 4197501.1,      16.7,     306.4,       1.5);
     ( 560060.6, 4197501.1,      16.9,     306.4,       1.5);
```

```
( 560070.6, 4197501.1,      17.4,     306.4,       1.5);
     ( 560080.6, 4197501.1,      17.7,     306.4,       1.5);
( 560090.6, 4197501.1,      17.7,     306.4,       1.5);
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(560100.6, 4197501.1, 17.6, 306.4, 1.5);
(559954.7, 4197549.5, 15.7, 306.4, 1.5);
(559973.4, 4197549.2, 16.3, 306.4, 1.5);
(559980.3, 4197544.3, 16.4, 306.4, 1.5);
(559978.2, 4197528.1, 16.2, 306.4, 1.5);
(559969.7, 4197512.8, 16.0, 306.4, 1.5);
(559971.1, 4197308.0, 15.6, 306.4, 1.5);
(559970.2, 4197308.4, 15.8, 306.4, 1.5);
(559912.4, 4197415.0, 15.3, 306.4, 1.5);
(559912.3, 4197415.4, 15.3, 306.4, 1.5);
(559959.4, 4197429.5, 15.1, 306.4, 1.5);
(559960.2, 4197441.8, 15.2, 306.4, 1.5);
(559926.0, 4197543.5, 15.4, 306.4, 1.5);

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING *** (1 =YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: Z:\Shared\San Jose\Env\16240_El Cerrito Eastshore Blvd Apt AQ Constrn HRA & NOI Met Version: 18081
Profile file: Z:\Shared\San Jose\Env\16240_El Cerrito Eastshore Blvd Apt AQ Constrn HRA & NOI
Surface format: FREE
Profile format: FREE
Surface station no.: 23230 Upper air station no.: 23230
Name: OAKLAND/WSO_AP Name: OAKLAND/WSO_AP
Year: 2013 Year: 2013

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
13	01	01	1	01	-6.3	0.084	-9.000	-9.000	-999.	58.	8.4	0.17	0.63	1.00	1.70	173.	10.0	279.9	8.8
13	01	01	1	02	-9.2	0.134	-9.000	-9.000	-999.	117.	23.7	0.15	0.63	1.00	2.10	93.	10.0	278.4	8.8
13	01	01	1	03	-6.5	0.086	-9.000	-9.000	-999.	61.	9.0	0.15	0.63	1.00	1.80	63.	10.0	278.4	8.8
13	01	01	1	04	-11.3	0.164	-9.000	-9.000	-999.	160.	35.8	0.19	0.63	1.00	2.20	25.	10.0	278.5	8.8
13	01	01	1	05	-15.9	0.232	-9.000	-9.000	-999.	268.	71.3	0.19	0.63	1.00	2.70	43.	10.0	278.8	8.8
13	01	01	1	06	-25.3	0.368	-9.000	-9.000	-999.	537.	180.2	0.15	0.63	1.00	4.10	72.	10.0	278.9	8.8
13	01	01	1	07	-24.5	0.242	-9.000	-9.000	-999.	296.	52.9	0.15	0.63	1.00	3.10	64.	10.0	278.5	8.8
13	01	01	1	08	-28.7	0.284	-9.000	-9.000	-999.	363.	72.7	0.19	0.63	1.00	3.30	56.	10.0	278.1	8.8
13	01	01	1	09	1.9	0.246	0.106	0.005	23.	293.	-724.2	0.19	0.63	0.38	2.40	49.	10.0	278.5	8.8
13	01	01	1	10	39.2	0.414	0.490	0.007	109.	639.	-164.7	0.19	0.63	0.25	3.90	42.	10.0	279.9	8.8
13	01	01	1	11	68.1	0.405	0.767	0.007	241.	619.	-88.9								

```
0.19   0.63   0.20    3.70   26.   10.0  280.8    8.8
 13 01 01   1 12   84.6  0.456  1.112  0.008  592.  738.   -102.1
0.19   0.63   0.19    4.20   26.   10.0  281.6    8.8
 13 01 01   1 13   87.7  0.532  1.277  0.007  865.  929.   -156.0
0.19   0.63   0.18    5.00   50.   10.0  282.8    8.8
 13 01 01   1 14   77.3  0.596  1.242  0.005  903. 1103.   -249.4
0.19   0.63   0.19    5.70   58.   10.0  283.8    8.8
 13 01 01   1 15   53.8  0.729  1.108  0.005  920. 1489.   -653.8
0.15   0.63   0.22    7.50   62.   10.0  284.4    8.8
 13 01 01   1 16   19.4  0.459  0.790  0.007  925.  827.   -454.5
0.15   0.63   0.31    4.70   72.   10.0  284.4    8.8
 13 01 01   1 17  -32.5  0.383 -9.000 -9.000 -999.  578.    157.6
0.15   0.63   0.54    4.30   78.   10.0  283.9    8.8
 13 01 01   1 18  -22.8  0.210 -9.000 -9.000 -999.  256.     36.9
0.15   0.63   1.00    2.90   99.   10.0  282.6    8.8
 13 01 01   1 19  -12.8  0.118 -9.000 -9.000 -999.  103.     11.7
0.17   0.63   1.00    2.40  124.   10.0  281.8    8.8
 13 01 01   1 20   -1.7  0.043 -9.000 -9.000 -999.   25.      4.2
0.15   0.63   1.00    0.90  336.   10.0  281.1    8.8
 13 01 01   1 21   -2.6  0.053 -9.000 -9.000 -999.   29.      5.2
0.15   0.63   1.00    1.10  304.   10.0  281.2    8.8
 13 01 01   1 22   -5.5  0.077 -9.000 -9.000 -999.   51.      7.5
0.15   0.63   1.00    1.60   94.   10.0  280.6    8.8
 13 01 01   1 23   -3.4  0.061 -9.000 -9.000 -999.   36.      6.1
0.19   0.63   1.00    1.20   19.   10.0  279.0    8.8
 13 01 01   1 24   -6.7  0.086 -9.000 -9.000 -999.   60.      8.6
0.19   0.63   1.00    1.70   30.   10.0  278.2    8.8


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW
sigmaV
 13 01 01 01    8.8 0 -999.  -99.00   280.0
999.0  -99.00  -99.00
 13 01 01 01   10.0 1  173.    1.70  -999.0   25.2  -99.00
0.68

 F indicates top of profile (=1) or below (=0)
```

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.01098	559615.17	4197121.97	0.01252
559665.17	4197121.97	0.01439	559715.17	4197121.97	0.01663
559765.17	4197121.97	0.01938	559815.17	4197121.97	0.02245
559865.17	4197121.97	0.02526	559915.17	4197121.97	0.02682
559965.17	4197121.97	0.02561	560015.17	4197121.97	0.02252
560065.17	4197121.97	0.01812	560115.17	4197121.97	0.01383
560165.17	4197121.97	0.01058	560215.17	4197121.97	0.00836
560265.17	4197121.97	0.00691	559565.17	4197171.97	0.01232
559615.17	4197171.97	0.01426	559665.17	4197171.97	0.01671
559715.17	4197171.97	0.01974	559765.17	4197171.97	0.02365
559815.17	4197171.97	0.02844	559865.17	4197171.97	0.03348
559915.17	4197171.97	0.03706	559965.17	4197171.97	0.03394

```
         560015.17    4197171.97        0.02996
560065.17    4197171.97        0.02236
         560115.17    4197171.97        0.01617
560165.17    4197171.97        0.01219
         560215.17    4197171.97        0.00967
560265.17    4197171.97        0.00804
         559565.17    4197221.97        0.01356
559615.17    4197221.97        0.01606
         559665.17    4197221.97        0.01927
559715.17    4197221.97        0.02348
         559765.17    4197221.97        0.02917
559815.17    4197221.97        0.03688
         559865.17    4197221.97        0.04649
559915.17    4197221.97        0.05525
         559965.17    4197221.97        0.05493
560015.17    4197221.97        0.04224
         560065.17    4197221.97        0.02811
560115.17    4197221.97        0.01951
         560165.17    4197221.97        0.01456
560215.17    4197221.97        0.01151
         560265.17    4197221.97        0.00950
559565.17    4197271.97        0.01451
         559615.17    4197271.97        0.01757
559665.17    4197271.97        0.02169
         559715.17    4197271.97        0.02742
559765.17    4197271.97        0.03575
         559815.17    4197271.97        0.04832
559865.17    4197271.97        0.06739
         559915.17    4197271.97        0.09262
559965.17    4197271.97        0.10369
         560015.17    4197271.97        0.06303
560065.17    4197271.97        0.03661
         560115.17    4197271.97        0.02436
560165.17    4197271.97        0.01774
         560215.17    4197271.97        0.01373
560265.17    4197271.97        0.01107
         559565.17    4197321.97        0.01499
559615.17    4197321.97        0.01849
         559665.17    4197321.97        0.02333
559715.17    4197321.97        0.03050
         559765.17    4197321.97        0.04187
559815.17    4197321.97        0.06114
         559865.17    4197321.97        0.09800
559915.17    4197321.97        0.16583
         560015.17    4197321.97        0.09407
560065.17    4197321.97        0.04837
         560115.17    4197321.97        0.03018
560165.17    4197321.97        0.02102
         560215.17    4197321.97        0.01571
560265.17    4197321.97        0.01236
         559565.17    4197371.97        0.01480
559615.17    4197371.97        0.01850
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          559665.17    4197371.97        0.02373
559715.17    4197371.97        0.03180
          559765.17    4197371.97        0.04504
559815.17    4197371.97        0.06993
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.12783	559915.17	4197371.97	0.25434
560015.17	4197371.97	0.12250	560065.17	4197371.97	0.05760
560115.17	4197371.97	0.03410	560165.17	4197371.97	0.02311
560215.17	4197371.97	0.01704	560265.17	4197371.97	0.01301
559565.17	4197421.97	0.01418	559615.17	4197421.97	0.01778
559665.17	4197421.97	0.02296	559715.17	4197421.97	0.03102
559765.17	4197421.97	0.04449	559815.17	4197421.97	0.07016
559865.17	4197421.97	0.12832	559915.17	4197421.97	0.33227
560015.17	4197421.97	0.13605	560065.17	4197421.97	0.06244
560115.17	4197421.97	0.03644	560165.17	4197421.97	0.02441
560215.17	4197421.97	0.01766	560265.17	4197421.97	0.01298
559565.17	4197471.97	0.01321	559615.17	4197471.97	0.01655

559665.17 4197471.97 0.02149
559715.17 4197471.97 0.02933
559765.17 4197471.97 0.04295
559815.17 4197471.97 0.07017
559865.17 4197471.97 0.13321
559915.17 4197471.97 0.31034
560015.17 4197471.97 0.14366
560065.17 4197471.97 0.06651
560115.17 4197471.97 0.03845
560165.17 4197471.97 0.02515
560215.17 4197471.97 0.01685
560265.17 4197471.97 0.01258
559565.17 4197521.97 0.01219
559615.17 4197521.97 0.01526
559665.17 4197521.97 0.01984
559715.17 4197521.97 0.02716
559765.17 4197521.97 0.04006
559815.17 4197521.97 0.06409
559865.17 4197521.97 0.12237
559915.17 4197521.97 0.29080
560015.17 4197521.97 0.13862
560065.17 4197521.97 0.06446
560115.17 4197521.97 0.03734
560165.17 4197521.97 0.02433
560215.17 4197521.97 0.01623
560265.17 4197521.97 0.01191
559565.17 4197571.97 0.01133
559615.17 4197571.97 0.01419
559665.17 4197571.97 0.01848
559715.17 4197571.97 0.02521
559765.17 4197571.97 0.03601
559815.17 4197571.97 0.05593
559865.17 4197571.97 0.09633
559915.17 4197571.97 0.20399
559965.17 4197571.97 0.28934
560015.17 4197571.97 0.11578
560065.17 4197571.97 0.05764
560115.17 4197571.97 0.03473
560165.17 4197571.97 0.02235
560215.17 4197571.97 0.01538
560265.17 4197571.97 0.01139
559565.17 4197621.97 0.01074
559615.17 4197621.97 0.01349
559665.17 4197621.97 0.01758
559715.17 4197621.97 0.02382
559765.17 4197621.97 0.03018
559815.17 4197621.97 0.05042
559865.17 4197621.97 0.07942
559915.17 4197621.97 0.12603
559965.17 4197621.97 0.14935
560015.17 4197621.97 0.09059
560065.17 4197621.97 0.05050

```
         560115.17    4197621.97        0.03038
560165.17    4197621.97        0.02189
         560215.17    4197621.97        0.01473
560265.17    4197621.97        0.01105
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.01038	559615.17	4197671.97	0.01306
559665.17	4197671.97	0.01697	559715.17	4197671.97	0.01997
559765.17	4197671.97	0.02826	559815.17	4197671.97	0.04469
559865.17	4197671.97	0.06373	559915.17	4197671.97	0.08873
559965.17	4197671.97	0.09203	560015.17	4197671.97	0.06501
560065.17	4197671.97	0.03894	560115.17	4197671.97	0.02592
560165.17	4197671.97	0.01885	560215.17	4197671.97	0.01415
560265.17	4197671.97	0.01059	559565.17	4197721.97	0.01015
559615.17	4197721.97	0.01277	559665.17	4197721.97	0.01629
559715.17	4197721.97	0.01950	559765.17	4197721.97	0.02850
559815.17	4197721.97	0.03813	559865.17	4197721.97	0.05149
559915.17	4197721.97	0.07020	559965.17	4197721.97	0.05992

```
         560015.17    4197721.97        0.04551
560065.17    4197721.97        0.03256
         560115.17    4197721.97        0.02275
560165.17    4197721.97        0.01673
         560215.17    4197721.97        0.01260
560265.17    4197721.97        0.00907
         559565.17    4197771.97        0.01001
559615.17    4197771.97        0.01246
         559665.17    4197771.97        0.01571
559715.17    4197771.97        0.01993
         559765.17    4197771.97        0.02527
559815.17    4197771.97        0.03164
         559865.17    4197771.97        0.04040
559915.17    4197771.97        0.04921
         559965.17    4197771.97        0.04205
560015.17    4197771.97        0.03500
         560065.17    4197771.97        0.02700
560115.17    4197771.97        0.01977
         560165.17    4197771.97        0.01476
560215.17    4197771.97        0.01017
         560265.17    4197771.97        0.00722
559565.17    4197821.97        0.00983
         559615.17    4197821.97        0.01142
559665.17    4197821.97        0.01426
         559715.17    4197821.97        0.01818
559765.17    4197821.97        0.02210
         559815.17    4197821.97        0.02628
559865.17    4197821.97        0.03086
         559915.17    4197821.97        0.03333
559965.17    4197821.97        0.03138
         560015.17    4197821.97        0.02732
560065.17    4197821.97        0.02256
         560115.17    4197821.97        0.01736
560165.17    4197821.97        0.01303
         560215.17    4197821.97        0.00890
560265.17    4197821.97        0.00604
         560000.59    4197301.08        0.10084
560010.59    4197301.08        0.08579
         560020.59    4197301.08        0.07371
560030.59    4197301.08        0.06422
         560040.59    4197301.08        0.05664
560050.59    4197301.08        0.05045
         560060.59    4197301.08        0.04532
560070.59    4197301.08        0.04103
         560080.59    4197301.08        0.03732
560090.59    4197301.08        0.03410
         560100.59    4197301.08        0.03131
560000.59    4197311.08        0.11062
         560010.59    4197311.08        0.09338
560020.59    4197311.08        0.07974
         560030.59    4197311.08        0.06908
560040.59    4197311.08        0.06060
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         560050.59    4197311.08        0.05372
560060.59    4197311.08        0.04803
         560070.59    4197311.08        0.04327
560080.59    4197311.08        0.03923
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.03575	560100.59	4197311.08	0.03275
560000.59	4197321.08	0.12019	560010.59	4197321.08	0.10091
560020.59	4197321.08	0.08572	560030.59	4197321.08	0.07389
560040.59	4197321.08	0.06454	560050.59	4197321.08	0.05695
560060.59	4197321.08	0.05068	560070.59	4197321.08	0.04544
560080.59	4197321.08	0.04106	560090.59	4197321.08	0.03732
560100.59	4197321.08	0.03411	560000.59	4197331.08	0.12922
560010.59	4197331.08	0.10815	560020.59	4197331.08	0.09148
560030.59	4197331.08	0.07855	560040.59	4197331.08	0.06832
560050.59	4197331.08	0.06002	560060.59	4197331.08	0.05318
560070.59	4197331.08	0.04748	560080.59	4197331.08	0.04275
560090.59	4197331.08	0.03876	560100.59	4197331.08	0.03534

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         560000.59    4197341.08        0.13781
560010.59    4197341.08        0.11502
         560020.59    4197341.08        0.09694
560030.59    4197341.08        0.08295
         560040.59    4197341.08        0.07185
560050.59    4197341.08        0.06286
         560060.59    4197341.08        0.05547
560070.59    4197341.08        0.04937
         560080.59    4197341.08        0.04429
560090.59    4197341.08        0.04002
         560100.59    4197341.08        0.03638
560000.59    4197351.08        0.14613
         560010.59    4197351.08        0.12144
560020.59    4197351.08        0.10198
         560030.59    4197351.08        0.08692
560040.59    4197351.08        0.07507
         560050.59    4197351.08        0.06544
560060.59    4197351.08        0.05755
         560070.59    4197351.08        0.05109
560080.59    4197351.08        0.04571
         560090.59    4197351.08        0.04115
560100.59    4197351.08        0.03730
         560000.59    4197361.08        0.15429
560010.59    4197361.08        0.12742
         560020.59    4197361.08        0.10663
560030.59    4197361.08        0.09057
         560040.59    4197361.08        0.07796
560050.59    4197361.08        0.06772
         560060.59    4197361.08        0.05936
560070.59    4197361.08        0.05256
         560080.59    4197361.08        0.04692
560090.59    4197361.08        0.04219
         560100.59    4197361.08        0.03820
560000.59    4197371.08        0.16163
         560010.59    4197371.08        0.13294
560020.59    4197371.08        0.11083
         560030.59    4197371.08        0.09379
560040.59    4197371.08        0.08042
         560050.59    4197371.08        0.06970
560060.59    4197371.08        0.06093
         560070.59    4197371.08        0.05379
560080.59    4197371.08        0.04795
         560090.59    4197371.08        0.04307
560100.59    4197371.08        0.03898
         560000.59    4197381.08        0.16792
560010.59    4197381.08        0.13778
         560020.59    4197381.08        0.11450
560030.59    4197381.08        0.09655
         560040.59    4197381.08        0.08252
560050.59    4197381.08        0.07136
         560060.59    4197381.08        0.06228
560070.59    4197381.08        0.05486
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          560080.59    4197381.08        0.04883
560090.59    4197381.08        0.04385
          560100.59    4197381.08        0.03965
560000.59    4197391.08        0.17296
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.14163	560020.59	4197391.08	0.11745
560030.59	4197391.08	0.09888	560040.59	4197391.08	0.08434
560050.59	4197391.08	0.07279	560060.59	4197391.08	0.06347
560070.59	4197391.08	0.05588	560080.59	4197391.08	0.04967
560090.59	4197391.08	0.04456	560100.59	4197391.08	0.04026
560000.59	4197401.08	0.17668	560010.59	4197401.08	0.14440
560020.59	4197401.08	0.11968	560030.59	4197401.08	0.10066
560040.59	4197401.08	0.08579	560050.59	4197401.08	0.07401
560060.59	4197401.08	0.06453	560070.59	4197401.08	0.05683
560080.59	4197401.08	0.05045	560090.59	4197401.08	0.04520
560100.59	4197401.08	0.04086	560000.59	4197411.08	0.17936
560010.59	4197411.08	0.14644	560020.59	4197411.08	0.12142

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         560030.59    4197411.08        0.10213
560040.59    4197411.08        0.08701
         560050.59    4197411.08        0.07504
560060.59    4197411.08        0.06541
         560070.59    4197411.08        0.05754
560080.59    4197411.08        0.05113
         560090.59    4197411.08        0.04584
560100.59    4197411.08        0.04150
         560000.59    4197421.08        0.18158
560010.59    4197421.08        0.14835
         560020.59    4197421.08        0.12302
560030.59    4197421.08        0.10352
         560040.59    4197421.08        0.08820
560050.59    4197421.08        0.07602
         560060.59    4197421.08        0.06620
560070.59    4197421.08        0.05827
         560080.59    4197421.08        0.05183
560090.59    4197421.08        0.04652
         560100.59    4197421.08        0.04210
560000.59    4197431.08        0.18408
         560010.59    4197431.08        0.15061
560020.59    4197431.08        0.12485
         560030.59    4197431.08        0.10506
560040.59    4197431.08        0.08947
         560050.59    4197431.08        0.07705
560060.59    4197431.08        0.06707
         560070.59    4197431.08        0.05910
560080.59    4197431.08        0.05256
         560090.59    4197431.08        0.04725
560100.59    4197431.08        0.04257
         560000.59    4197441.08        0.18692
560010.59    4197441.08        0.15291
         560020.59    4197441.08        0.12676
560030.59    4197441.08        0.10665
         560040.59    4197441.08        0.09078
560050.59    4197441.08        0.07809
         560060.59    4197441.08        0.06802
560070.59    4197441.08        0.05991
         560080.59    4197441.08        0.05337
560090.59    4197441.08        0.04790
         560100.59    4197441.08        0.04296
560000.59    4197451.08        0.18954
         560010.59    4197451.08        0.15493
560020.59    4197451.08        0.12837
         560030.59    4197451.08        0.10802
560040.59    4197451.08        0.09191
         560050.59    4197451.08        0.07907
560060.59    4197451.08        0.06893
         560070.59    4197451.08        0.06074
560080.59    4197451.08        0.05418
         560090.59    4197451.08        0.04849
560100.59    4197451.08        0.04350
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         560000.59    4197461.08        0.19145
560010.59    4197461.08        0.15636
         560020.59    4197461.08        0.12939
560030.59    4197461.08        0.10887
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.09272	560050.59	4197461.08	0.07995
560060.59	4197461.08	0.06971	560070.59	4197461.08	0.06157
560080.59	4197461.08	0.05481	560090.59	4197461.08	0.04898
560100.59	4197461.08	0.04401	560000.59	4197471.08	0.19248
560010.59	4197471.08	0.15709	560020.59	4197471.08	0.12987
560030.59	4197471.08	0.10944	560040.59	4197471.08	0.09344
560050.59	4197471.08	0.08064	560060.59	4197471.08	0.07041
560070.59	4197471.08	0.06224	560080.59	4197471.08	0.05519
560090.59	4197471.08	0.04928	560100.59	4197471.08	0.04434
560000.59	4197481.08	0.19269	560010.59	4197481.08	0.15716
560020.59	4197481.08	0.13012	560030.59	4197481.08	0.10987
560040.59	4197481.08	0.09393	560050.59	4197481.08	0.08106

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         560060.59    4197481.08        0.07094
560070.59    4197481.08        0.06250
         560080.59    4197481.08        0.05526
560090.59    4197481.08        0.04936
         560100.59    4197481.08        0.04447
560000.59    4197491.08        0.19201
         560010.59    4197491.08        0.15667
560020.59    4197491.08        0.13015
         560030.59    4197491.08        0.11004
560040.59    4197491.08        0.09400
         560050.59    4197491.08        0.08126
560060.59    4197491.08        0.07107
         560070.59    4197491.08        0.06229
560080.59    4197491.08        0.05508
         560090.59    4197491.08        0.04924
560100.59    4197491.08        0.04438
         560000.59    4197501.08        0.19058
560010.59    4197501.08        0.15594
         560020.59    4197501.08        0.12978
560030.59    4197501.08        0.10962
         560040.59    4197501.08        0.09362
560050.59    4197501.08        0.08108
         560060.59    4197501.08        0.07064
560070.59    4197501.08        0.06181
         560080.59    4197501.08        0.05470
560090.59    4197501.08        0.04892
         560100.59    4197501.08        0.04408
559954.71    4197549.49        0.35283
         559973.36    4197549.21        0.29125
559980.26    4197544.34        0.25250
         559978.21    4197528.15        0.27882
559969.70    4197512.85        0.35268
         559971.05    4197308.01        0.17593
559970.20    4197308.43        0.17999
         559912.41    4197414.97        0.31666
559912.33    4197415.37        0.31600
         559959.36    4197429.45        0.41325
559960.20    4197441.75        0.42756
         559926.03    4197543.45        0.30435
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.01043	559615.17	4197121.97	0.01189
559665.17	4197121.97	0.01368	559715.17	4197121.97	0.01581
559765.17	4197121.97	0.01843	559815.17	4197121.97	0.02135
559865.17	4197121.97	0.02399	559915.17	4197121.97	0.02536
559965.17	4197121.97	0.02413	560015.17	4197121.97	0.02117
560065.17	4197121.97	0.01705	560115.17	4197121.97	0.01303
560165.17	4197121.97	0.00997	560215.17	4197121.97	0.00787
560265.17	4197121.97	0.00650	559565.17	4197171.97	0.01171
559615.17	4197171.97	0.01357	559665.17	4197171.97	0.01591
559715.17	4197171.97	0.01880	559765.17	4197171.97	0.02253
559815.17	4197171.97	0.02709	559865.17	4197171.97	0.03181
559915.17	4197171.97	0.03498	559965.17	4197171.97	0.03180
560015.17	4197171.97	0.02797	560065.17	4197171.97	0.02099
560115.17	4197171.97	0.01522			

560165.17 4197171.97 0.01146
560215.17 4197171.97 0.00909
560265.17 4197171.97 0.00757
559565.17 4197221.97 0.01291
559615.17 4197221.97 0.01532
559665.17 4197221.97 0.01839
559715.17 4197221.97 0.02242
559765.17 4197221.97 0.02788
559815.17 4197221.97 0.03523
559865.17 4197221.97 0.04428
559915.17 4197221.97 0.05203
559965.17 4197221.97 0.05041
560015.17 4197221.97 0.03883
560065.17 4197221.97 0.02627
560115.17 4197221.97 0.01830
560165.17 4197221.97 0.01368
560215.17 4197221.97 0.01084
560265.17 4197221.97 0.00897
559565.17 4197271.97 0.01382
559615.17 4197271.97 0.01677
559665.17 4197271.97 0.02074
559715.17 4197271.97 0.02628
559765.17 4197271.97 0.03432
559815.17 4197271.97 0.04644
559865.17 4197271.97 0.06469
559915.17 4197271.97 0.08788
559965.17 4197271.97 0.08967
560015.17 4197271.97 0.05689
560065.17 4197271.97 0.03412
560115.17 4197271.97 0.02288
560165.17 4197271.97 0.01673
560215.17 4197271.97 0.01300
560265.17 4197271.97 0.01051
559565.17 4197321.97 0.01425
559615.17 4197321.97 0.01764
559665.17 4197321.97 0.02232
559715.17 4197321.97 0.02928
559765.17 4197321.97 0.04034
559815.17 4197321.97 0.05915
559865.17 4197321.97 0.09514
559915.17 4197321.97 0.16139
560015.17 4197321.97 0.08626
560065.17 4197321.97 0.04552
560115.17 4197321.97 0.02857
560165.17 4197321.97 0.01996
560215.17 4197321.97 0.01496
560265.17 4197321.97 0.01178
559565.17 4197371.97 0.01402
559615.17 4197371.97 0.01759
559665.17 4197371.97 0.02265
559715.17 4197371.97 0.03048
559765.17 4197371.97 0.04339

559815.17 4197371.97 0.06780

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.12486	559915.17	4197371.97	0.25008
560015.17	4197371.97	0.11569	560065.17	4197371.97	0.05474
560115.17	4197371.97	0.03245	560165.17	4197371.97	0.02202
560215.17	4197371.97	0.01623	560265.17	4197371.97	0.01241
559565.17	4197421.97	0.01336	559615.17	4197421.97	0.01681
559665.17	4197421.97	0.02178	559715.17	4197421.97	0.02955
559765.17	4197421.97	0.04262	559815.17	4197421.97	0.06768
559865.17	4197421.97	0.12490	559915.17	4197421.97	0.32719
560015.17	4197421.97	0.13071	560065.17	4197421.97	0.05951
560115.17	4197421.97	0.03469	560165.17	4197421.97	0.02322
560215.17	4197421.97	0.01677	560265.17	4197421.97	0.01230
559565.17	4197471.97	0.01235	559615.17	4197471.97	0.01552
559665.17	4197471.97	0.02020	559715.17	4197471.97	0.02769
559765.17	4197471.97	0.04078			

559815.17 4197471.97 0.06716
559865.17 4197471.97 0.12891
559915.17 4197471.97 0.30421
560015.17 4197471.97 0.13844
560065.17 4197471.97 0.06340
560115.17 4197471.97 0.03652
560165.17 4197471.97 0.02380
560215.17 4197471.97 0.01586
560265.17 4197471.97 0.01180
559565.17 4197521.97 0.01132
559615.17 4197521.97 0.01419
559665.17 4197521.97 0.01848
559715.17 4197521.97 0.02537
559765.17 4197521.97 0.03762
559815.17 4197521.97 0.06058
559865.17 4197521.97 0.11679
559915.17 4197521.97 0.28032
560015.17 4197521.97 0.13118
560065.17 4197521.97 0.06082
560115.17 4197521.97 0.03514
560165.17 4197521.97 0.02286
560215.17 4197521.97 0.01514
560265.17 4197521.97 0.01106
559565.17 4197571.97 0.01046
559615.17 4197571.97 0.01311
559665.17 4197571.97 0.01709
559715.17 4197571.97 0.02336
559765.17 4197571.97 0.03345
559815.17 4197571.97 0.05215
559865.17 4197571.97 0.09015
559915.17 4197571.97 0.19049
559965.17 4197571.97 0.26163
560015.17 4197571.97 0.10534
560065.17 4197571.97 0.05350
560115.17 4197571.97 0.03235
560165.17 4197571.97 0.02081
560215.17 4197571.97 0.01428
560265.17 4197571.97 0.01053
559565.17 4197621.97 0.00990
559615.17 4197621.97 0.01243
559665.17 4197621.97 0.01620
559715.17 4197621.97 0.02197
559765.17 4197621.97 0.02764
559815.17 4197621.97 0.04637
559865.17 4197621.97 0.07242
559915.17 4197621.97 0.11159
559965.17 4197621.97 0.12268
560015.17 4197621.97 0.07955
560065.17 4197621.97 0.04630
560115.17 4197621.97 0.02804
560165.17 4197621.97 0.02035
560215.17 4197621.97 0.01365

560265.17 4197621.97 0.01025

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON *** INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00959	559615.17	4197671.97	0.01206
559665.17	4197671.97	0.01566	559715.17	4197671.97	0.01833
559765.17	4197671.97	0.02588	559815.17	4197671.97	0.04039
559865.17	4197671.97	0.05544	559915.17	4197671.97	0.06905
559965.17	4197671.97	0.07133	560015.17	4197671.97	0.05665
560065.17	4197671.97	0.03508	560115.17	4197671.97	0.02369
560165.17	4197671.97	0.01737	560215.17	4197671.97	0.01311
560265.17	4197671.97	0.00985	559565.17	4197721.97	0.00942
559615.17	4197721.97	0.01184	559665.17	4197721.97	0.01509
559715.17	4197721.97	0.01803	559765.17	4197721.97	0.02606
559815.17	4197721.97	0.03393	559865.17	4197721.97	0.04175
559915.17	4197721.97	0.04708	559965.17	4197721.97	0.04739
560015.17	4197721.97	0.03945	560065.17	4197721.97	0.02924
560115.17	4197721.97	0.02073			

560165.17 4197721.97 0.01541
560215.17 4197721.97 0.01167
560265.17 4197721.97 0.00845
559565.17 4197771.97 0.00932
559615.17 4197771.97 0.01160
559665.17 4197771.97 0.01461
559715.17 4197771.97 0.01845
559765.17 4197771.97 0.02310
559815.17 4197771.97 0.02803
559865.17 4197771.97 0.03215
559915.17 4197771.97 0.03449
559965.17 4197771.97 0.03438
560015.17 4197771.97 0.03050
560065.17 4197771.97 0.02424
560115.17 4197771.97 0.01808
560165.17 4197771.97 0.01357
560215.17 4197771.97 0.00941
560265.17 4197771.97 0.00672
559565.17 4197821.97 0.00919
559615.17 4197821.97 0.01068
559665.17 4197821.97 0.01331
559715.17 4197821.97 0.01680
559765.17 4197821.97 0.02010
559815.17 4197821.97 0.02310
559865.17 4197821.97 0.02534
559915.17 4197821.97 0.02647
559965.17 4197821.97 0.02635
560015.17 4197821.97 0.02395
560065.17 4197821.97 0.02035
560115.17 4197821.97 0.01586
560165.17 4197821.97 0.01197
560215.17 4197821.97 0.00822
560265.17 4197821.97 0.00560
560000.59 4197301.08 0.08958
560010.59 4197301.08 0.07742
560020.59 4197301.08 0.06738
560030.59 4197301.08 0.05925
560040.59 4197301.08 0.05258
560050.59 4197301.08 0.04704
560060.59 4197301.08 0.04239
560070.59 4197301.08 0.03847
560080.59 4197301.08 0.03506
560090.59 4197301.08 0.03208
560100.59 4197301.08 0.02949
560000.59 4197311.08 0.09876
560010.59 4197311.08 0.08465
560020.59 4197311.08 0.07318
560030.59 4197311.08 0.06393
560040.59 4197311.08 0.05641
560050.59 4197311.08 0.05021
560060.59 4197311.08 0.04502
560070.59 4197311.08 0.04065

560080.59 4197311.08 0.03692

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.03369	560100.59	4197311.08	0.03090
560000.59	4197321.08	0.10809	560010.59	4197321.08	0.09199
560020.59	4197321.08	0.07901	560030.59	4197321.08	0.06862
560040.59	4197321.08	0.06026	560050.59	4197321.08	0.05338
560060.59	4197321.08	0.04763	560070.59	4197321.08	0.04280
560080.59	4197321.08	0.03873	560090.59	4197321.08	0.03525
560100.59	4197321.08	0.03225	560000.59	4197331.08	0.11726
560010.59	4197331.08	0.09922	560020.59	4197331.08	0.08472
560030.59	4197331.08	0.07324	560040.59	4197331.08	0.06400
560050.59	4197331.08	0.05642	560060.59	4197331.08	0.05011
560070.59	4197331.08	0.04482	560080.59	4197331.08	0.04041
560090.59	4197331.08	0.03668	560100.59	4197331.08	0.03347
560000.59	4197341.08	0.12633	560010.59	4197341.08	0.10630
560020.59	4197341.08	0.09026			

560030.59 4197341.08 0.07768
560040.59 4197341.08 0.06755
560050.59 4197341.08 0.05926
560060.59 4197341.08 0.05240
560070.59 4197341.08 0.04671
560080.59 4197341.08 0.04195
560090.59 4197341.08 0.03793
560100.59 4197341.08 0.03451
560000.59 4197351.08 0.13527
560010.59 4197351.08 0.11309
560020.59 4197351.08 0.09550
560030.59 4197351.08 0.08175
560040.59 4197351.08 0.07082
560050.59 4197351.08 0.06187
560060.59 4197351.08 0.05449
560070.59 4197351.08 0.04842
560080.59 4197351.08 0.04336
560090.59 4197351.08 0.03906
560100.59 4197351.08 0.03543
560000.59 4197361.08 0.14388
560010.59 4197361.08 0.11944
560020.59 4197361.08 0.10037
560030.59 4197361.08 0.08551
560040.59 4197361.08 0.07377
560050.59 4197361.08 0.06418
560060.59 4197361.08 0.05632
560070.59 4197361.08 0.04989
560080.59 4197361.08 0.04457
560090.59 4197361.08 0.04009
560100.59 4197361.08 0.03631
560000.59 4197371.08 0.15189
560010.59 4197371.08 0.12533
560020.59 4197371.08 0.10477
560030.59 4197371.08 0.08884
560040.59 4197371.08 0.07628
560050.59 4197371.08 0.06617
560060.59 4197371.08 0.05789
560070.59 4197371.08 0.05112
560080.59 4197371.08 0.04558
560090.59 4197371.08 0.04096
560100.59 4197371.08 0.03708
560000.59 4197381.08 0.15904
560010.59 4197381.08 0.13059
560020.59 4197381.08 0.10864
560030.59 4197381.08 0.09169
560040.59 4197381.08 0.07842
560050.59 4197381.08 0.06784
560060.59 4197381.08 0.05923
560070.59 4197381.08 0.05218
560080.59 4197381.08 0.04645
560090.59 4197381.08 0.04172
560100.59 4197381.08 0.03773

560000.59 4197391.08 0.16494

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.13488	560020.59	4197391.08	0.11181
560030.59	4197391.08	0.09412	560040.59	4197391.08	0.08027
560050.59	4197391.08	0.06927	560060.59	4197391.08	0.06041
560070.59	4197391.08	0.05318	560080.59	4197391.08	0.04727
560090.59	4197391.08	0.04241	560100.59	4197391.08	0.03832
560000.59	4197401.08	0.16944	560010.59	4197401.08	0.13810
560020.59	4197401.08	0.11426	560030.59	4197401.08	0.09600
560040.59	4197401.08	0.08177	560050.59	4197401.08	0.07050
560060.59	4197401.08	0.06146	560070.59	4197401.08	0.05411
560080.59	4197401.08	0.04803	560090.59	4197401.08	0.04303
560100.59	4197401.08	0.03890	560000.59	4197411.08	0.17273
560010.59	4197411.08	0.14051	560020.59	4197411.08	0.11621
560030.59	4197411.08	0.09757	560040.59	4197411.08	0.08303
560050.59	4197411.08	0.07154			

560060.59 4197411.08 0.06233
560070.59 4197411.08 0.05481
560080.59 4197411.08 0.04869
560090.59 4197411.08 0.04364
560100.59 4197411.08 0.03951
560000.59 4197421.08 0.17541
560010.59 4197421.08 0.14273
560020.59 4197421.08 0.11798
560030.59 4197421.08 0.09904
560040.59 4197421.08 0.08425
560050.59 4197421.08 0.07253
560060.59 4197421.08 0.06312
560070.59 4197421.08 0.05552
560080.59 4197421.08 0.04936
560090.59 4197421.08 0.04430
560100.59 4197421.08 0.04008
560000.59 4197431.08 0.17822
560010.59 4197431.08 0.14519
560020.59 4197431.08 0.11993
560030.59 4197431.08 0.10065
560040.59 4197431.08 0.08554
560050.59 4197431.08 0.07356
560060.59 4197431.08 0.06397
560070.59 4197431.08 0.05633
560080.59 4197431.08 0.05007
560090.59 4197431.08 0.04500
560100.59 4197431.08 0.04053
560000.59 4197441.08 0.18123
560010.59 4197441.08 0.14762
560020.59 4197441.08 0.12192
560030.59 4197441.08 0.10227
560040.59 4197441.08 0.08686
560050.59 4197441.08 0.07459
560060.59 4197441.08 0.06489
560070.59 4197441.08 0.05711
560080.59 4197441.08 0.05086
560090.59 4197441.08 0.04563
560100.59 4197441.08 0.04090
560000.59 4197451.08 0.18391
560010.59 4197451.08 0.14968
560020.59 4197451.08 0.12354
560030.59 4197451.08 0.10364
560040.59 4197451.08 0.08797
560050.59 4197451.08 0.07555
560060.59 4197451.08 0.06577
560070.59 4197451.08 0.05791
560080.59 4197451.08 0.05162
560090.59 4197451.08 0.04618
560100.59 4197451.08 0.04141
560000.59 4197461.08 0.18576
560010.59 4197461.08 0.15107
560020.59 4197461.08 0.12454

560030.59 4197461.08 0.10445

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON *** INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.08875	560050.59	4197461.08	0.07639
560060.59	4197461.08	0.06652	560070.59	4197461.08	0.05869
560080.59	4197461.08	0.05221	560090.59	4197461.08	0.04663
560100.59	4197461.08	0.04188	560000.59	4197471.08	0.18662
560010.59	4197471.08	0.15167	560020.59	4197471.08	0.12492
560030.59	4197471.08	0.10494	560040.59	4197471.08	0.08939
560050.59	4197471.08	0.07701	560060.59	4197471.08	0.06715
560070.59	4197471.08	0.05930	560080.59	4197471.08	0.05254
560090.59	4197471.08	0.04688	560100.59	4197471.08	0.04215
560000.59	4197481.08	0.18652	560010.59	4197481.08	0.15151
560020.59	4197481.08	0.12500	560030.59	4197481.08	0.10524
560040.59	4197481.08	0.08978	560050.59	4197481.08	0.07734
560060.59	4197481.08	0.06760	560070.59	4197481.08	0.05950
560080.59	4197481.08	0.05256			

560090.59 4197481.08 0.04692
560100.59 4197481.08 0.04224
560000.59 4197491.08 0.18540
560010.59 4197491.08 0.15069
560020.59 4197491.08 0.12477
560030.59 4197491.08 0.10522
560040.59 4197491.08 0.08970
560050.59 4197491.08 0.07742
560060.59 4197491.08 0.06764
560070.59 4197491.08 0.05921
560080.59 4197491.08 0.05231
560090.59 4197491.08 0.04673
560100.59 4197491.08 0.04209
560000.59 4197501.08 0.18333
560010.59 4197501.08 0.14947
560020.59 4197501.08 0.12404
560030.59 4197501.08 0.10454
560040.59 4197501.08 0.08914
560050.59 4197501.08 0.07710
560060.59 4197501.08 0.06709
560070.59 4197501.08 0.05865
560080.59 4197501.08 0.05186
560090.59 4197501.08 0.04634
560100.59 4197501.08 0.04172
559954.71 4197549.49 0.33150
559973.36 4197549.21 0.26925
559980.26 4197544.34 0.23332
559978.21 4197528.15 0.26487
559969.70 4197512.85 0.34180
559971.05 4197308.01 0.15363
559970.20 4197308.43 0.15721
559912.41 4197414.97 0.31175
559912.33 4197415.37 0.31109
559959.36 4197429.45 0.40682
559960.20 4197441.75 0.42128
559926.03 4197543.45 0.28747

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.00055	559615.17	4197121.97	0.00063
559665.17	4197121.97	0.00072	559715.17	4197121.97	0.00082
559765.17	4197121.97	0.00095	559815.17	4197121.97	0.00110
559865.17	4197121.97	0.00128	559915.17	4197121.97	0.00146
559965.17	4197121.97	0.00148	560015.17	4197121.97	0.00135
560065.17	4197121.97	0.00107	560115.17	4197121.97	0.00080
560165.17	4197121.97	0.00062	560215.17	4197121.97	0.00049
560265.17	4197121.97	0.00041	559565.17	4197171.97	0.00060
559615.17	4197171.97	0.00069	559665.17	4197171.97	0.00080
559715.17	4197171.97	0.00094	559765.17	4197171.97	0.00112
559815.17	4197171.97	0.00135	559865.17	4197171.97	0.00167
559915.17	4197171.97	0.00208	559965.17	4197171.97	0.00214

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         560015.17    4197171.97        0.00199
560065.17    4197171.97        0.00137
         560115.17    4197171.97        0.00096
560165.17    4197171.97        0.00073
         560215.17    4197171.97        0.00058
560265.17    4197171.97        0.00047
         559565.17    4197221.97        0.00065
559615.17    4197221.97        0.00075
         559665.17    4197221.97        0.00088
559715.17    4197221.97        0.00106
         559765.17    4197221.97        0.00130
559815.17    4197221.97        0.00165
         559865.17    4197221.97        0.00221
559915.17    4197221.97        0.00322
         559965.17    4197221.97        0.00453
560015.17    4197221.97        0.00341
         560065.17    4197221.97        0.00184
560115.17    4197221.97        0.00121
         560165.17    4197221.97        0.00088
560215.17    4197221.97        0.00067
         560265.17    4197221.97        0.00052
559565.17    4197271.97        0.00069
         559615.17    4197271.97        0.00080
559665.17    4197271.97        0.00095
         559715.17    4197271.97        0.00115
559765.17    4197271.97        0.00143
         559815.17    4197271.97        0.00188
559865.17    4197271.97        0.00270
         559915.17    4197271.97        0.00474
559965.17    4197271.97        0.01402
         560015.17    4197271.97        0.00613
560065.17    4197271.97        0.00249
         560115.17    4197271.97        0.00148
560165.17    4197271.97        0.00100
         560215.17    4197271.97        0.00073
560265.17    4197271.97        0.00056
         559565.17    4197321.97        0.00073
559615.17    4197321.97        0.00085
         559665.17    4197321.97        0.00101
559715.17    4197321.97        0.00122
         559765.17    4197321.97        0.00152
559815.17    4197321.97        0.00199
         559865.17    4197321.97        0.00286
559915.17    4197321.97        0.00445
         560015.17    4197321.97        0.00781
560065.17    4197321.97        0.00286
         560115.17    4197321.97        0.00161
560165.17    4197321.97        0.00105
         560215.17    4197321.97        0.00076
560265.17    4197321.97        0.00058
         559565.17    4197371.97        0.00077
559615.17    4197371.97        0.00091
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         559665.17    4197371.97        0.00108
559715.17    4197371.97        0.00132
         559765.17    4197371.97        0.00165
559815.17    4197371.97        0.00214
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.00298	559915.17	4197371.97	0.00425
560015.17	4197371.97	0.00681	560065.17	4197371.97	0.00286
560115.17	4197371.97	0.00165	560165.17	4197371.97	0.00109
560215.17	4197371.97	0.00080	560265.17	4197371.97	0.00060
559565.17	4197421.97	0.00082	559615.17	4197421.97	0.00098
559665.17	4197421.97	0.00118	559715.17	4197421.97	0.00147
559765.17	4197421.97	0.00187	559815.17	4197421.97	0.00247
559865.17	4197421.97	0.00342	559915.17	4197421.97	0.00508
560015.17	4197421.97	0.00534	560065.17	4197421.97	0.00293
560115.17	4197421.97	0.00175	560165.17	4197421.97	0.00119
560215.17	4197421.97	0.00089	560265.17	4197421.97	0.00068
559565.17	4197471.97	0.00085	559615.17	4197471.97	0.00104

559665.17 4197471.97 0.00128
559715.17 4197471.97 0.00164
559765.17 4197471.97 0.00218
559815.17 4197471.97 0.00301
559865.17 4197471.97 0.00429
559915.17 4197471.97 0.00613
560015.17 4197471.97 0.00522
560065.17 4197471.97 0.00311
560115.17 4197471.97 0.00193
560165.17 4197471.97 0.00135
560215.17 4197471.97 0.00100
560265.17 4197471.97 0.00078
559565.17 4197521.97 0.00087
559615.17 4197521.97 0.00108
559665.17 4197521.97 0.00136
559715.17 4197521.97 0.00179
559765.17 4197521.97 0.00244
559815.17 4197521.97 0.00351
559865.17 4197521.97 0.00558
559915.17 4197521.97 0.01049
560015.17 4197521.97 0.00743
560065.17 4197521.97 0.00363
560115.17 4197521.97 0.00220
560165.17 4197521.97 0.00147
560215.17 4197521.97 0.00110
560265.17 4197521.97 0.00085
559565.17 4197571.97 0.00087
559615.17 4197571.97 0.00108
559665.17 4197571.97 0.00139
559715.17 4197571.97 0.00186
559765.17 4197571.97 0.00256
559815.17 4197571.97 0.00378
559865.17 4197571.97 0.00617
559915.17 4197571.97 0.01349
559965.17 4197571.97 0.02771
560015.17 4197571.97 0.01045
560065.17 4197571.97 0.00414
560115.17 4197571.97 0.00238
560165.17 4197571.97 0.00154
560215.17 4197571.97 0.00111
560265.17 4197571.97 0.00085
559565.17 4197621.97 0.00084
559615.17 4197621.97 0.00106
559665.17 4197621.97 0.00138
559715.17 4197621.97 0.00186
559765.17 4197621.97 0.00254
559815.17 4197621.97 0.00405
559865.17 4197621.97 0.00699
559915.17 4197621.97 0.01444
559965.17 4197621.97 0.02668
560015.17 4197621.97 0.01104
560065.17 4197621.97 0.00420

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         560115.17    4197621.97        0.00234
560165.17    4197621.97        0.00154
         560215.17    4197621.97        0.00107
560265.17    4197621.97        0.00080
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00079	559615.17	4197671.97	0.00100
559665.17	4197671.97	0.00131	559715.17	4197671.97	0.00164
559765.17	4197671.97	0.00238	559815.17	4197671.97	0.00430
559865.17	4197671.97	0.00829	559915.17	4197671.97	0.01968
559965.17	4197671.97	0.02070	560015.17	4197671.97	0.00836
560065.17	4197671.97	0.00386	560115.17	4197671.97	0.00223
560165.17	4197671.97	0.00148	560215.17	4197671.97	0.00104
560265.17	4197671.97	0.00074	559565.17	4197721.97	0.00074
559615.17	4197721.97	0.00092	559665.17	4197721.97	0.00120
559715.17	4197721.97	0.00148	559765.17	4197721.97	0.00244
559815.17	4197721.97	0.00420	559865.17	4197721.97	0.00973
559915.17	4197721.97	0.02312	559965.17	4197721.97	0.01253

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         560015.17    4197721.97        0.00605
560065.17    4197721.97        0.00332
         560115.17    4197721.97        0.00202
560165.17    4197721.97        0.00133
         560215.17    4197721.97        0.00093
560265.17    4197721.97        0.00062
         559565.17    4197771.97        0.00068
559615.17    4197771.97        0.00085
         559665.17    4197771.97        0.00110
559715.17    4197771.97        0.00149
         559765.17    4197771.97        0.00217
559815.17    4197771.97        0.00361
         559865.17    4197771.97        0.00824
559915.17    4197771.97        0.01472
         559965.17    4197771.97        0.00767
560015.17    4197771.97        0.00450
         560065.17    4197771.97        0.00276
560115.17    4197771.97        0.00169
         560165.17    4197771.97        0.00119
560215.17    4197771.97        0.00076
         560265.17    4197771.97        0.00050
559565.17    4197821.97        0.00064
         559615.17    4197821.97        0.00074
559665.17    4197821.97        0.00095
         559715.17    4197821.97        0.00139
559765.17    4197821.97        0.00200
         559815.17    4197821.97        0.00318
559865.17    4197821.97        0.00552
         559915.17    4197821.97        0.00686
559965.17    4197821.97        0.00503
         560015.17    4197821.97        0.00337
560065.17    4197821.97        0.00221
         560115.17    4197821.97        0.00150
560165.17    4197821.97        0.00106
         560215.17    4197821.97        0.00068
560265.17    4197821.97        0.00044
         560000.59    4197301.08        0.01126
560010.59    4197301.08        0.00838
         560020.59    4197301.08        0.00633
560030.59    4197301.08        0.00498
         560040.59    4197301.08        0.00407
560050.59    4197301.08        0.00342
         560060.59    4197301.08        0.00293
560070.59    4197301.08        0.00256
         560080.59    4197301.08        0.00227
560090.59    4197301.08        0.00202
         560100.59    4197301.08        0.00182
560000.59    4197311.08        0.01186
         560010.59    4197311.08        0.00874
560020.59    4197311.08        0.00657
         560030.59    4197311.08        0.00515
560040.59    4197311.08        0.00419
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         560050.59    4197311.08        0.00351
560060.59    4197311.08        0.00300
         560070.59    4197311.08        0.00262
560080.59    4197311.08        0.00231
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.00205	560100.59	4197311.08	0.00184
560000.59	4197321.08	0.01210	560010.59	4197321.08	0.00893
560020.59	4197321.08	0.00672	560030.59	4197321.08	0.00526
560040.59	4197321.08	0.00428	560050.59	4197321.08	0.00358
560060.59	4197321.08	0.00305	560070.59	4197321.08	0.00265
560080.59	4197321.08	0.00233	560090.59	4197321.08	0.00207
560100.59	4197321.08	0.00186	560000.59	4197331.08	0.01196
560010.59	4197331.08	0.00893	560020.59	4197331.08	0.00676
560030.59	4197331.08	0.00531	560040.59	4197331.08	0.00432
560050.59	4197331.08	0.00360	560060.59	4197331.08	0.00307
560070.59	4197331.08	0.00266	560080.59	4197331.08	0.00234
560090.59	4197331.08	0.00208	560100.59	4197331.08	0.00187

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         560000.59    4197341.08        0.01148
560010.59    4197341.08        0.00873
         560020.59    4197341.08        0.00667
560030.59    4197341.08        0.00527
         560040.59    4197341.08        0.00430
560050.59    4197341.08        0.00360
         560060.59    4197341.08        0.00307
560070.59    4197341.08        0.00266
         560080.59    4197341.08        0.00234
560090.59    4197341.08        0.00209
         560100.59    4197341.08        0.00187
560000.59    4197351.08        0.01086
         560010.59    4197351.08        0.00835
560020.59    4197351.08        0.00648
         560030.59    4197351.08        0.00517
560040.59    4197351.08        0.00425
         560050.59    4197351.08        0.00357
560060.59    4197351.08        0.00306
         560070.59    4197351.08        0.00266
560080.59    4197351.08        0.00235
         560090.59    4197351.08        0.00209
560100.59    4197351.08        0.00188
         560000.59    4197361.08        0.01042
560010.59    4197361.08        0.00798
         560020.59    4197361.08        0.00626
560030.59    4197361.08        0.00506
         560040.59    4197361.08        0.00420
560050.59    4197361.08        0.00355
         560060.59    4197361.08        0.00305
560070.59    4197361.08        0.00266
         560080.59    4197361.08        0.00236
560090.59    4197361.08        0.00210
         560100.59    4197361.08        0.00189
560000.59    4197371.08        0.00974
         560010.59    4197371.08        0.00760
560020.59    4197371.08        0.00606
         560030.59    4197371.08        0.00495
560040.59    4197371.08        0.00414
         560050.59    4197371.08        0.00353
560060.59    4197371.08        0.00305
         560070.59    4197371.08        0.00267
560080.59    4197371.08        0.00236
         560090.59    4197371.08        0.00211
560100.59    4197371.08        0.00190
         560000.59    4197381.08        0.00888
560010.59    4197381.08        0.00719
         560020.59    4197381.08        0.00586
560030.59    4197381.08        0.00486
         560040.59    4197381.08        0.00410
560050.59    4197381.08        0.00352
         560060.59    4197381.08        0.00305
560070.59    4197381.08        0.00268
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         560080.59    4197381.08        0.00238
560090.59    4197381.08        0.00213
         560100.59    4197381.08        0.00192
560000.59    4197391.08        0.00802
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.00675	560020.59	4197391.08	0.00564
560030.59	4197391.08	0.00476	560040.59	4197391.08	0.00407
560050.59	4197391.08	0.00351	560060.59	4197391.08	0.00307
560070.59	4197391.08	0.00270	560080.59	4197391.08	0.00240
560090.59	4197391.08	0.00215	560100.59	4197391.08	0.00194
560000.59	4197401.08	0.00724	560010.59	4197401.08	0.00631
560020.59	4197401.08	0.00542	560030.59	4197401.08	0.00466
560040.59	4197401.08	0.00403	560050.59	4197401.08	0.00351
560060.59	4197401.08	0.00308	560070.59	4197401.08	0.00272
560080.59	4197401.08	0.00242	560090.59	4197401.08	0.00217
560100.59	4197401.08	0.00196	560000.59	4197411.08	0.00662
560010.59	4197411.08	0.00592	560020.59	4197411.08	0.00521

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         560030.59    4197411.08        0.00456
560040.59    4197411.08        0.00399
         560050.59    4197411.08        0.00350
560060.59    4197411.08        0.00308
         560070.59    4197411.08        0.00273
560080.59    4197411.08        0.00244
         560090.59    4197411.08        0.00219
560100.59    4197411.08        0.00199
         560000.59    4197421.08        0.00617
560010.59    4197421.08        0.00563
         560020.59    4197421.08        0.00504
560030.59    4197421.08        0.00447
         560040.59    4197421.08        0.00395
560050.59    4197421.08        0.00349
         560060.59    4197421.08        0.00309
560070.59    4197421.08        0.00275
         560080.59    4197421.08        0.00246
560090.59    4197421.08        0.00222
         560100.59    4197421.08        0.00201
560000.59    4197431.08        0.00586
         560010.59    4197431.08        0.00542
560020.59    4197431.08        0.00492
         560030.59    4197431.08        0.00441
560040.59    4197431.08        0.00393
         560050.59    4197431.08        0.00349
560060.59    4197431.08        0.00310
         560070.59    4197431.08        0.00277
560080.59    4197431.08        0.00249
         560090.59    4197431.08        0.00225
560100.59    4197431.08        0.00204
         560000.59    4197441.08        0.00569
560010.59    4197441.08        0.00529
         560020.59    4197441.08        0.00485
560030.59    4197441.08        0.00438
         560040.59    4197441.08        0.00393
560050.59    4197441.08        0.00350
         560060.59    4197441.08        0.00312
560070.59    4197441.08        0.00279
         560080.59    4197441.08        0.00252
560090.59    4197441.08        0.00228
         560100.59    4197441.08        0.00206
560000.59    4197451.08        0.00563
         560010.59    4197451.08        0.00525
560020.59    4197451.08        0.00482
         560030.59    4197451.08        0.00438
560040.59    4197451.08        0.00394
         560050.59    4197451.08        0.00352
560060.59    4197451.08        0.00315
         560070.59    4197451.08        0.00283
560080.59    4197451.08        0.00256
         560090.59    4197451.08        0.00231
560100.59    4197451.08        0.00209
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         560000.59    4197461.08        0.00569
560010.59    4197461.08        0.00529
         560020.59    4197461.08        0.00486
560030.59    4197461.08        0.00441
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.00398	560050.59	4197461.08	0.00357
560060.59	4197461.08	0.00320	560070.59	4197461.08	0.00288
560080.59	4197461.08	0.00260	560090.59	4197461.08	0.00235
560100.59	4197461.08	0.00214	560000.59	4197471.08	0.00586
560010.59	4197471.08	0.00542	560020.59	4197471.08	0.00495
560030.59	4197471.08	0.00449	560040.59	4197471.08	0.00405
560050.59	4197471.08	0.00363	560060.59	4197471.08	0.00326
560070.59	4197471.08	0.00294	560080.59	4197471.08	0.00265
560090.59	4197471.08	0.00240	560100.59	4197471.08	0.00218
560000.59	4197481.08	0.00616	560010.59	4197481.08	0.00565
560020.59	4197481.08	0.00513	560030.59	4197481.08	0.00463
560040.59	4197481.08	0.00416	560050.59	4197481.08	0.00372

```
         560060.59    4197481.08        0.00334
560070.59    4197481.08        0.00300
         560080.59    4197481.08        0.00270
560090.59    4197481.08        0.00245
         560100.59    4197481.08        0.00224
560000.59    4197491.08        0.00661
         560010.59    4197491.08        0.00599
560020.59    4197491.08        0.00539
         560030.59    4197491.08        0.00482
560040.59    4197491.08        0.00430
         560050.59    4197491.08        0.00384
560060.59    4197491.08        0.00344
         560070.59    4197491.08        0.00307
560080.59    4197491.08        0.00277
         560090.59    4197491.08        0.00251
560100.59    4197491.08        0.00229
         560000.59    4197501.08        0.00725
560010.59    4197501.08        0.00647
         560020.59    4197501.08        0.00574
560030.59    4197501.08        0.00508
         560040.59    4197501.08        0.00448
560050.59    4197501.08        0.00399
         560060.59    4197501.08        0.00355
560070.59    4197501.08        0.00316
         560080.59    4197501.08        0.00285
560090.59    4197501.08        0.00258
         560100.59    4197501.08        0.00236
559954.71    4197549.49        0.02133
         559973.36    4197549.21        0.02199
559980.26    4197544.34        0.01918
         559978.21    4197528.15        0.01394
559969.70    4197512.85        0.01089
         559971.05    4197308.01        0.02230
559970.20    4197308.43        0.02278
         559912.41    4197414.97        0.00491
559912.33    4197415.37        0.00491
         559959.36    4197429.45        0.00643
559960.20    4197441.75        0.00628
         559926.03    4197543.45        0.01689
```

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.01057	559615.17	4197121.97	0.01205
559665.17	4197121.97	0.01385	559715.17	4197121.97	0.01600
559765.17	4197121.97	0.01864	559815.17	4197121.97	0.02160
559865.17	4197121.97	0.02430	559915.17	4197121.97	0.02580
559965.17	4197121.97	0.02463	560015.17	4197121.97	0.02166
560065.17	4197121.97	0.01742	560115.17	4197121.97	0.01330
560165.17	4197121.97	0.01018	560215.17	4197121.97	0.00804
560265.17	4197121.97	0.00665	559565.17	4197171.97	0.01185
559615.17	4197171.97	0.01372	559665.17	4197171.97	0.01608
559715.17	4197171.97	0.01899	559765.17	4197171.97	0.02276
559815.17	4197171.97	0.02737	559865.17	4197171.97	0.03221
559915.17	4197171.97	0.03565	559965.17	4197171.97	0.03264

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         560015.17    4197171.97        0.02881
560065.17    4197171.97        0.02150
         560115.17    4197171.97        0.01556
560165.17    4197171.97        0.01172
         560215.17    4197171.97        0.00930
560265.17    4197171.97        0.00773
         559565.17    4197221.97        0.01304
559615.17    4197221.97        0.01546
         559665.17    4197221.97        0.01854
559715.17    4197221.97        0.02259
         559765.17    4197221.97        0.02807
559815.17    4197221.97        0.03549
         559865.17    4197221.97        0.04474
559915.17    4197221.97        0.05315
         559965.17    4197221.97        0.05281
560015.17    4197221.97        0.04060
         560065.17    4197221.97        0.02703
560115.17    4197221.97        0.01877
         560165.17    4197221.97        0.01401
560215.17    4197221.97        0.01107
         560265.17    4197221.97        0.00914
559565.17    4197271.97        0.01396
         559615.17    4197271.97        0.01690
559665.17    4197271.97        0.02087
         559715.17    4197271.97        0.02639
559765.17    4197271.97        0.03440
         559815.17    4197271.97        0.04651
559865.17    4197271.97        0.06486
         559915.17    4197271.97        0.08912
559965.17    4197271.97        0.09953
         560015.17    4197271.97        0.06056
560065.17    4197271.97        0.03521
         560115.17    4197271.97        0.02343
560165.17    4197271.97        0.01706
         560215.17    4197271.97        0.01321
560265.17    4197271.97        0.01065
         559565.17    4197321.97        0.01442
559615.17    4197321.97        0.01779
         559665.17    4197321.97        0.02245
559715.17    4197321.97        0.02935
         559765.17    4197321.97        0.04029
559815.17    4197321.97        0.05886
         559865.17    4197321.97        0.09435
559915.17    4197321.97        0.15968
         560015.17    4197321.97        0.09042
560065.17    4197321.97        0.04653
         560115.17    4197321.97        0.02903
560165.17    4197321.97        0.02022
         560215.17    4197321.97        0.01512
560265.17    4197321.97        0.01189
         559565.17    4197371.97        0.01424
559615.17    4197371.97        0.01780
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         559665.17    4197371.97        0.02283
559715.17    4197371.97        0.03060
         559765.17    4197371.97        0.04335
559815.17    4197371.97        0.06732
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*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.12309	559915.17	4197371.97	0.24496
560015.17	4197371.97	0.11784	560065.17	4197371.97	0.05542
560115.17	4197371.97	0.03281	560165.17	4197371.97	0.02224
560215.17	4197371.97	0.01639	560265.17	4197371.97	0.01251
559565.17	4197421.97	0.01364	559615.17	4197421.97	0.01711
559665.17	4197421.97	0.02208	559715.17	4197421.97	0.02984
559765.17	4197421.97	0.04281	559815.17	4197421.97	0.06752
559865.17	4197421.97	0.12354	559915.17	4197421.97	0.32002
560015.17	4197421.97	0.13093	560065.17	4197421.97	0.06008
560115.17	4197421.97	0.03506	560165.17	4197421.97	0.02348
560215.17	4197421.97	0.01699	560265.17	4197421.97	0.01248
559565.17	4197471.97	0.01270	559615.17	4197471.97	0.01592

559665.17 4197471.97 0.02066
559715.17 4197471.97 0.02821
559765.17 4197471.97 0.04132
559815.17 4197471.97 0.06752
559865.17 4197471.97 0.12821
559915.17 4197471.97 0.29880
560015.17 4197471.97 0.13826
560065.17 4197471.97 0.06399
560115.17 4197471.97 0.03698
560165.17 4197471.97 0.02419
560215.17 4197471.97 0.01621
560265.17 4197471.97 0.01210
559565.17 4197521.97 0.01172
559615.17 4197521.97 0.01467
559665.17 4197521.97 0.01908
559715.17 4197521.97 0.02611
559765.17 4197521.97 0.03852
559815.17 4197521.97 0.06165
559865.17 4197521.97 0.11773
559915.17 4197521.97 0.27981
560015.17 4197521.97 0.13332
560065.17 4197521.97 0.06199
560115.17 4197521.97 0.03592
560165.17 4197521.97 0.02340
560215.17 4197521.97 0.01561
560265.17 4197521.97 0.01145
559565.17 4197571.97 0.01089
559615.17 4197571.97 0.01364
559665.17 4197571.97 0.01776
559715.17 4197571.97 0.02424
559765.17 4197571.97 0.03462
559815.17 4197571.97 0.05377
559865.17 4197571.97 0.09262
559915.17 4197571.97 0.19610
559965.17 4197571.97 0.27789
560015.17 4197571.97 0.11125
560065.17 4197571.97 0.05541
560115.17 4197571.97 0.03339
560165.17 4197571.97 0.02149
560215.17 4197571.97 0.01479
560265.17 4197571.97 0.01095
559565.17 4197621.97 0.01032
559615.17 4197621.97 0.01297
559665.17 4197621.97 0.01690
559715.17 4197621.97 0.02290
559765.17 4197621.97 0.02900
559815.17 4197621.97 0.04846
559865.17 4197621.97 0.07631
559915.17 4197621.97 0.12100
559965.17 4197621.97 0.14314
560015.17 4197621.97 0.08696
560065.17 4197621.97 0.04853

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         560115.17    4197621.97        0.02920
560165.17    4197621.97        0.02105
         560215.17    4197621.97        0.01416
560265.17    4197621.97        0.01063
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*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00998	559615.17	4197671.97	0.01256
559665.17	4197671.97	0.01631	559715.17	4197671.97	0.01919
559765.17	4197671.97	0.02716	559815.17	4197671.97	0.04293
559865.17	4197671.97	0.06116	559915.17	4197671.97	0.08494
559965.17	4197671.97	0.08809	560015.17	4197671.97	0.06239
560065.17	4197671.97	0.03741	560115.17	4197671.97	0.02490
560165.17	4197671.97	0.01812	560215.17	4197671.97	0.01360
560265.17	4197671.97	0.01018	559565.17	4197721.97	0.00976
559615.17	4197721.97	0.01227	559665.17	4197721.97	0.01566
559715.17	4197721.97	0.01875	559765.17	4197721.97	0.02739
559815.17	4197721.97	0.03662	559865.17	4197721.97	0.04933
559915.17	4197721.97	0.06700	559965.17	4197721.97	0.05738

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         560015.17    4197721.97        0.04367
560065.17    4197721.97        0.03127
         560115.17    4197721.97        0.02186
560165.17    4197721.97        0.01608
         560215.17    4197721.97        0.01212
560265.17    4197721.97        0.00872
         559565.17    4197771.97        0.00962
559615.17    4197771.97        0.01198
         559665.17    4197771.97        0.01510
559715.17    4197771.97        0.01916
         559765.17    4197771.97        0.02429
559815.17    4197771.97        0.03038
         559865.17    4197771.97        0.03869
559915.17    4197771.97        0.04700
         559965.17    4197771.97        0.04030
560015.17    4197771.97        0.03359
         560065.17    4197771.97        0.02593
560115.17    4197771.97        0.01900
         560165.17    4197771.97        0.01419
560215.17    4197771.97        0.00977
         560265.17    4197771.97        0.00695
559565.17    4197821.97        0.00946
         559615.17    4197821.97        0.01098
559665.17    4197821.97        0.01371
         559715.17    4197821.97        0.01748
559765.17    4197821.97        0.02124
         559815.17    4197821.97        0.02523
559865.17    4197821.97        0.02957
         559915.17    4197821.97        0.03192
559965.17    4197821.97        0.03009
         560015.17    4197821.97        0.02623
560065.17    4197821.97        0.02167
         560115.17    4197821.97        0.01669
560165.17    4197821.97        0.01252
         560215.17    4197821.97        0.00855
560265.17    4197821.97        0.00581
         560000.59    4197301.08        0.09685
560010.59    4197301.08        0.08243
         560020.59    4197301.08        0.07085
560030.59    4197301.08        0.06174
         560040.59    4197301.08        0.05446
560050.59    4197301.08        0.04852
         560060.59    4197301.08        0.04358
560070.59    4197301.08        0.03947
         560080.59    4197301.08        0.03590
560090.59    4197301.08        0.03280
         560100.59    4197301.08        0.03011
560000.59    4197311.08        0.10626
         560010.59    4197311.08        0.08974
560020.59    4197311.08        0.07665
         560030.59    4197311.08        0.06642
560040.59    4197311.08        0.05827
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         560050.59    4197311.08        0.05166
560060.59    4197311.08        0.04619
         560070.59    4197311.08        0.04162
560080.59    4197311.08        0.03773
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*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.03439	560100.59	4197311.08	0.03150
560000.59	4197321.08	0.11547	560010.59	4197321.08	0.09699
560020.59	4197321.08	0.08241	560030.59	4197321.08	0.07105
560040.59	4197321.08	0.06207	560050.59	4197321.08	0.05478
560060.59	4197321.08	0.04874	560070.59	4197321.08	0.04371
560080.59	4197321.08	0.03950	560090.59	4197321.08	0.03590
560100.59	4197321.08	0.03281	560000.59	4197331.08	0.12418
560010.59	4197331.08	0.10396	560020.59	4197331.08	0.08796
560030.59	4197331.08	0.07554	560040.59	4197331.08	0.06571
560050.59	4197331.08	0.05773	560060.59	4197331.08	0.05115
560070.59	4197331.08	0.04568	560080.59	4197331.08	0.04113
560090.59	4197331.08	0.03729	560100.59	4197331.08	0.03400

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         560000.59    4197341.08        0.13247
560010.59    4197341.08        0.11059
         560020.59    4197341.08        0.09322
560030.59    4197341.08        0.07978
         560040.59    4197341.08        0.06911
560050.59    4197341.08        0.06046
         560060.59    4197341.08        0.05336
560070.59    4197341.08        0.04750
         560080.59    4197341.08        0.04261
560090.59    4197341.08        0.03850
         560100.59    4197341.08        0.03500
560000.59    4197351.08        0.14050
         560010.59    4197351.08        0.11678
560020.59    4197351.08        0.09808
         560030.59    4197351.08        0.08361
560040.59    4197351.08        0.07221
         560050.59    4197351.08        0.06295
560060.59    4197351.08        0.05537
         560070.59    4197351.08        0.04915
560080.59    4197351.08        0.04397
         560090.59    4197351.08        0.03959
560100.59    4197351.08        0.03589
         560000.59    4197361.08        0.14838
560010.59    4197361.08        0.12255
         560020.59    4197361.08        0.10256
560030.59    4197361.08        0.08712
         560040.59    4197361.08        0.07500
560050.59    4197361.08        0.06515
         560060.59    4197361.08        0.05711
560070.59    4197361.08        0.05056
         560080.59    4197361.08        0.04515
560090.59    4197361.08        0.04059
         560100.59    4197361.08        0.03675
560000.59    4197371.08        0.15547
         560010.59    4197371.08        0.12788
560020.59    4197371.08        0.10662
         560030.59    4197371.08        0.09023
560040.59    4197371.08        0.07737
         560050.59    4197371.08        0.06705
560060.59    4197371.08        0.05863
         560070.59    4197371.08        0.05175
560080.59    4197371.08        0.04613
         560090.59    4197371.08        0.04144
560100.59    4197371.08        0.03751
         560000.59    4197381.08        0.16155
560010.59    4197381.08        0.13256
         560020.59    4197381.08        0.11016
560030.59    4197381.08        0.09289
         560040.59    4197381.08        0.07940
560050.59    4197381.08        0.06866
         560060.59    4197381.08        0.05992
560070.59    4197381.08        0.05278
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         560080.59    4197381.08        0.04698
560090.59    4197381.08        0.04219
         560100.59    4197381.08        0.03815
560000.59    4197391.08        0.16643
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*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.13628	560020.59	4197391.08	0.11301
560030.59	4197391.08	0.09514	560040.59	4197391.08	0.08115
560050.59	4197391.08	0.07003	560060.59	4197391.08	0.06107
560070.59	4197391.08	0.05377	560080.59	4197391.08	0.04779
560090.59	4197391.08	0.04287	560100.59	4197391.08	0.03873
560000.59	4197401.08	0.17003	560010.59	4197401.08	0.13896
560020.59	4197401.08	0.11516	560030.59	4197401.08	0.09685
560040.59	4197401.08	0.08255	560050.59	4197401.08	0.07121
560060.59	4197401.08	0.06209	560070.59	4197401.08	0.05468
560080.59	4197401.08	0.04854	560090.59	4197401.08	0.04349
560100.59	4197401.08	0.03932	560000.59	4197411.08	0.17263
560010.59	4197411.08	0.14093	560020.59	4197411.08	0.11684

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         560030.59    4197411.08        0.09827
560040.59    4197411.08        0.08372
         560050.59    4197411.08        0.07220
560060.59    4197411.08        0.06294
         560070.59    4197411.08        0.05536
560080.59    4197411.08        0.04919
         560090.59    4197411.08        0.04410
560100.59    4197411.08        0.03993
         560000.59    4197421.08        0.17478
560010.59    4197421.08        0.14278
         560020.59    4197421.08        0.11838
560030.59    4197421.08        0.09961
         560040.59    4197421.08        0.08487
560050.59    4197421.08        0.07315
         560060.59    4197421.08        0.06370
560070.59    4197421.08        0.05606
         560080.59    4197421.08        0.04986
560090.59    4197421.08        0.04476
         560100.59    4197421.08        0.04050
560000.59    4197431.08        0.17719
         560010.59    4197431.08        0.14496
560020.59    4197431.08        0.12015
         560030.59    4197431.08        0.10110
560040.59    4197431.08        0.08609
         560050.59    4197431.08        0.07414
560060.59    4197431.08        0.06453
         560070.59    4197431.08        0.05686
560080.59    4197431.08        0.05057
         560090.59    4197431.08        0.04546
560100.59    4197431.08        0.04095
         560000.59    4197441.08        0.17992
560010.59    4197441.08        0.14717
         560020.59    4197441.08        0.12199
560030.59    4197441.08        0.10263
         560040.59    4197441.08        0.08735
560050.59    4197441.08        0.07514
         560060.59    4197441.08        0.06544
560070.59    4197441.08        0.05764
         560080.59    4197441.08        0.05135
560090.59    4197441.08        0.04609
         560100.59    4197441.08        0.04133
560000.59    4197451.08        0.18245
         560010.59    4197451.08        0.14912
560020.59    4197451.08        0.12354
         560030.59    4197451.08        0.10395
560040.59    4197451.08        0.08844
         560050.59    4197451.08        0.07608
560060.59    4197451.08        0.06632
         560070.59    4197451.08        0.05844
560080.59    4197451.08        0.05212
         560090.59    4197451.08        0.04665
560100.59    4197451.08        0.04185
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         560000.59    4197461.08        0.18428
560010.59    4197461.08        0.15049
         560020.59    4197461.08        0.12452
560030.59    4197461.08        0.10476
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.08922	560050.59	4197461.08	0.07693
560060.59	4197461.08	0.06707	560070.59	4197461.08	0.05924
560080.59	4197461.08	0.05273	560090.59	4197461.08	0.04713
560100.59	4197461.08	0.04234	560000.59	4197471.08	0.18527
560010.59	4197471.08	0.15118	560020.59	4197471.08	0.12498
560030.59	4197471.08	0.10530	560040.59	4197471.08	0.08991
560050.59	4197471.08	0.07759	560060.59	4197471.08	0.06774
560070.59	4197471.08	0.05988	560080.59	4197471.08	0.05310
560090.59	4197471.08	0.04740	560100.59	4197471.08	0.04265
560000.59	4197481.08	0.18545	560010.59	4197481.08	0.15124
560020.59	4197481.08	0.12521	560030.59	4197481.08	0.10572
560040.59	4197481.08	0.09038	560050.59	4197481.08	0.07799

```
         560060.59    4197481.08        0.06825
560070.59    4197481.08        0.06013
         560080.59    4197481.08        0.05316
560090.59    4197481.08        0.04749
         560100.59    4197481.08        0.04278
560000.59    4197491.08        0.18478
         560010.59    4197491.08        0.15076
560020.59    4197491.08        0.12523
         560030.59    4197491.08        0.10588
560040.59    4197491.08        0.09044
         560050.59    4197491.08        0.07818
560060.59    4197491.08        0.06837
         560070.59    4197491.08        0.05992
560080.59    4197491.08        0.05298
         560090.59    4197491.08        0.04736
560100.59    4197491.08        0.04269
         560000.59    4197501.08        0.18339
560010.59    4197501.08        0.15004
         560020.59    4197501.08        0.12486
560030.59    4197501.08        0.10546
         560040.59    4197501.08        0.09006
560050.59    4197501.08        0.07800
         560060.59    4197501.08        0.06795
560070.59    4197501.08        0.05946
         560080.59    4197501.08        0.05262
560090.59    4197501.08        0.04706
         560100.59    4197501.08        0.04240
559954.71    4197549.49        0.33922
         559973.36    4197549.21        0.27989
559980.26    4197544.34        0.24268
         559978.21    4197528.15        0.26818
559969.70    4197512.85        0.33940
         559971.05    4197308.01        0.16891
559970.20    4197308.43        0.17282
         559912.41    4197414.97        0.30499
559912.33    4197415.37        0.30436
         559959.36    4197429.45        0.39798
559960.20    4197441.75        0.41177
         559926.03    4197543.45        0.29268
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*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.01005	559615.17	4197121.97	0.01146
559665.17	4197121.97	0.01318	559715.17	4197121.97	0.01523
559765.17	4197121.97	0.01776	559815.17	4197121.97	0.02057
559865.17	4197121.97	0.02311	559915.17	4197121.97	0.02443
559965.17	4197121.97	0.02325	560015.17	4197121.97	0.02039
560065.17	4197121.97	0.01643	560115.17	4197121.97	0.01256
560165.17	4197121.97	0.00960	560215.17	4197121.97	0.00758
560265.17	4197121.97	0.00626	559565.17	4197171.97	0.01129
559615.17	4197171.97	0.01308	559665.17	4197171.97	0.01533
559715.17	4197171.97	0.01811	559765.17	4197171.97	0.02170
559815.17	4197171.97	0.02610	559865.17	4197171.97	0.03065
559915.17	4197171.97	0.03370	559965.17	4197171.97	0.03063
560015.17	4197171.97	0.02694	560065.17	4197171.97	0.02022
560115.17	4197171.97	0.01466			

560165.17 4197171.97 0.01104
560215.17 4197171.97 0.00876
560265.17 4197171.97 0.00729
559565.17 4197221.97 0.01244
559615.17 4197221.97 0.01476
559665.17 4197221.97 0.01772
559715.17 4197221.97 0.02160
559765.17 4197221.97 0.02686
559815.17 4197221.97 0.03394
559865.17 4197221.97 0.04267
559915.17 4197221.97 0.05013
559965.17 4197221.97 0.04857
560015.17 4197221.97 0.03741
560065.17 4197221.97 0.02531
560115.17 4197221.97 0.01763
560165.17 4197221.97 0.01318
560215.17 4197221.97 0.01045
560265.17 4197221.97 0.00864
559565.17 4197271.97 0.01332
559615.17 4197271.97 0.01616
559665.17 4197271.97 0.01998
559715.17 4197271.97 0.02532
559765.17 4197271.97 0.03306
559815.17 4197271.97 0.04474
559865.17 4197271.97 0.06233
559915.17 4197271.97 0.08468
559965.17 4197271.97 0.08640
560015.17 4197271.97 0.05482
560065.17 4197271.97 0.03287
560115.17 4197271.97 0.02205
560165.17 4197271.97 0.01612
560215.17 4197271.97 0.01253
560265.17 4197271.97 0.01013
559565.17 4197321.97 0.01373
559615.17 4197321.97 0.01699
559665.17 4197321.97 0.02151
559715.17 4197321.97 0.02821
559765.17 4197321.97 0.03887
559815.17 4197321.97 0.05699
559865.17 4197321.97 0.09167
559915.17 4197321.97 0.15551
560015.17 4197321.97 0.08311
560065.17 4197321.97 0.04386
560115.17 4197321.97 0.02753
560165.17 4197321.97 0.01923
560215.17 4197321.97 0.01441
560265.17 4197321.97 0.01134
559565.17 4197371.97 0.01351
559615.17 4197371.97 0.01695
559665.17 4197371.97 0.02182
559715.17 4197371.97 0.02937
559765.17 4197371.97 0.04181

559815.17 4197371.97 0.06532

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.12030	559915.17	4197371.97	0.24098
560015.17	4197371.97	0.11147	560065.17	4197371.97	0.05274
560115.17	4197371.97	0.03127	560165.17	4197371.97	0.02121
560215.17	4197371.97	0.01564	560265.17	4197371.97	0.01195
559565.17	4197421.97	0.01287	559615.17	4197421.97	0.01619
559665.17	4197421.97	0.02098	559715.17	4197421.97	0.02847
559765.17	4197421.97	0.04106	559815.17	4197421.97	0.06521
559865.17	4197421.97	0.12033	559915.17	4197421.97	0.31527
560015.17	4197421.97	0.12593	560065.17	4197421.97	0.05734
560115.17	4197421.97	0.03342	560165.17	4197421.97	0.02237
560215.17	4197421.97	0.01616	560265.17	4197421.97	0.01184
559565.17	4197471.97	0.01190	559615.17	4197471.97	0.01495
559665.17	4197471.97	0.01946	559715.17	4197471.97	0.02668
559765.17	4197471.97	0.03928			

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559815.17    4197471.97        0.06470
         559865.17    4197471.97        0.12419
559915.17    4197471.97        0.29306
         560015.17    4197471.97        0.13337
560065.17    4197471.97        0.06108
         560115.17    4197471.97        0.03518
560165.17    4197471.97        0.02293
         560215.17    4197471.97        0.01528
560265.17    4197471.97        0.01136
         559565.17    4197521.97        0.01090
559615.17    4197521.97        0.01367
         559665.17    4197521.97        0.01780
559715.17    4197521.97        0.02444
         559765.17    4197521.97        0.03624
559815.17    4197521.97        0.05836
         559865.17    4197521.97        0.11251
559915.17    4197521.97        0.26998
         560015.17    4197521.97        0.12636
560065.17    4197521.97        0.05859
         560115.17    4197521.97        0.03385
560165.17    4197521.97        0.02202
         560215.17    4197521.97        0.01458
560265.17    4197521.97        0.01065
         559565.17    4197571.97        0.01008
559615.17    4197571.97        0.01263
         559665.17    4197571.97        0.01646
559715.17    4197571.97        0.02250
         559765.17    4197571.97        0.03223
559815.17    4197571.97        0.05024
         559865.17    4197571.97        0.08684
559915.17    4197571.97        0.18347
         559965.17    4197571.97        0.25197
560015.17    4197571.97        0.10146
         560065.17    4197571.97        0.05154
560115.17    4197571.97        0.03117
         560165.17    4197571.97        0.02005
560215.17    4197571.97        0.01375
         560265.17    4197571.97        0.01015
559565.17    4197621.97        0.00953
         559615.17    4197621.97        0.01198
559665.17    4197621.97        0.01561
         559715.17    4197621.97        0.02116
559765.17    4197621.97        0.02663
         559815.17    4197621.97        0.04467
559865.17    4197621.97        0.06976
         559915.17    4197621.97        0.10748
559965.17    4197621.97        0.11816
         560015.17    4197621.97        0.07662
560065.17    4197621.97        0.04460
         560115.17    4197621.97        0.02701
560165.17    4197621.97        0.01960
         560215.17    4197621.97        0.01315
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560265.17 4197621.97 0.00988

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00924	559615.17	4197671.97	0.01162
559665.17	4197671.97	0.01509	559715.17	4197671.97	0.01766
559765.17	4197671.97	0.02493	559815.17	4197671.97	0.03891
559865.17	4197671.97	0.05340	559915.17	4197671.97	0.06651
559965.17	4197671.97	0.06870	560015.17	4197671.97	0.05457
560065.17	4197671.97	0.03380	560115.17	4197671.97	0.02282
560165.17	4197671.97	0.01674	560215.17	4197671.97	0.01263
560265.17	4197671.97	0.00949	559565.17	4197721.97	0.00907
559615.17	4197721.97	0.01141	559665.17	4197721.97	0.01454
559715.17	4197721.97	0.01737	559765.17	4197721.97	0.02510
559815.17	4197721.97	0.03269	559865.17	4197721.97	0.04022
559915.17	4197721.97	0.04535	559965.17	4197721.97	0.04565
560015.17	4197721.97	0.03800	560065.17	4197721.97	0.02816
560115.17	4197721.97	0.01997			

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560165.17    4197721.97        0.01484
         560215.17    4197721.97        0.01125
560265.17    4197721.97        0.00814
         559565.17    4197771.97        0.00898
559615.17    4197771.97        0.01118
         559665.17    4197771.97        0.01407
559715.17    4197771.97        0.01777
         559765.17    4197771.97        0.02225
559815.17    4197771.97        0.02700
         559865.17    4197771.97        0.03097
559915.17    4197771.97        0.03322
         559965.17    4197771.97        0.03312
560015.17    4197771.97        0.02938
         560065.17    4197771.97        0.02335
560115.17    4197771.97        0.01741
         560165.17    4197771.97        0.01308
560215.17    4197771.97        0.00906
         560265.17    4197771.97        0.00648
559565.17    4197821.97        0.00885
         559615.17    4197821.97        0.01029
559665.17    4197821.97        0.01282
         559715.17    4197821.97        0.01618
559765.17    4197821.97        0.01937
         559815.17    4197821.97        0.02225
559865.17    4197821.97        0.02440
         559915.17    4197821.97        0.02550
559965.17    4197821.97        0.02538
         560015.17    4197821.97        0.02307
560065.17    4197821.97        0.01960
         560115.17    4197821.97        0.01528
560165.17    4197821.97        0.01153
         560215.17    4197821.97        0.00791
560265.17    4197821.97        0.00540
         560000.59    4197301.08        0.08631
560010.59    4197301.08        0.07459
         560020.59    4197301.08        0.06492
560030.59    4197301.08        0.05708
         560040.59    4197301.08        0.05066
560050.59    4197301.08        0.04532
         560060.59    4197301.08        0.04084
560070.59    4197301.08        0.03706
         560080.59    4197301.08        0.03378
560090.59    4197301.08        0.03090
         560100.59    4197301.08        0.02841
560000.59    4197311.08        0.09516
         560010.59    4197311.08        0.08156
560020.59    4197311.08        0.07051
         560030.59    4197311.08        0.06160
560040.59    4197311.08        0.05435
         560050.59    4197311.08        0.04837
560060.59    4197311.08        0.04338
         560070.59    4197311.08        0.03917
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560080.59 4197311.08 0.03557

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.03246	560100.59	4197311.08	0.02978
560000.59	4197321.08	0.10415	560010.59	4197321.08	0.08863
560020.59	4197321.08	0.07612	560030.59	4197321.08	0.06612
560040.59	4197321.08	0.05806	560050.59	4197321.08	0.05143
560060.59	4197321.08	0.04589	560070.59	4197321.08	0.04123
560080.59	4197321.08	0.03731	560090.59	4197321.08	0.03396
560100.59	4197321.08	0.03107	560000.59	4197331.08	0.11298
560010.59	4197331.08	0.09560	560020.59	4197331.08	0.08163
560030.59	4197331.08	0.07057	560040.59	4197331.08	0.06167
560050.59	4197331.08	0.05436	560060.59	4197331.08	0.04828
560070.59	4197331.08	0.04318	560080.59	4197331.08	0.03894
560090.59	4197331.08	0.03534	560100.59	4197331.08	0.03224
560000.59	4197341.08	0.12172	560010.59	4197341.08	0.10242
560020.59	4197341.08	0.08697			

560030.59 4197341.08 0.07484
560040.59 4197341.08 0.06508
560050.59 4197341.08 0.05710
560060.59 4197341.08 0.05049
560070.59 4197341.08 0.04500
560080.59 4197341.08 0.04042
560090.59 4197341.08 0.03654
560100.59 4197341.08 0.03325
560000.59 4197351.08 0.13033
560010.59 4197351.08 0.10896
560020.59 4197351.08 0.09202
560030.59 4197351.08 0.07877
560040.59 4197351.08 0.06823
560050.59 4197351.08 0.05961
560060.59 4197351.08 0.05250
560070.59 4197351.08 0.04666
560080.59 4197351.08 0.04177
560090.59 4197351.08 0.03764
560100.59 4197351.08 0.03413
560000.59 4197361.08 0.13863
560010.59 4197361.08 0.11508
560020.59 4197361.08 0.09670
560030.59 4197361.08 0.08239
560040.59 4197361.08 0.07107
560050.59 4197361.08 0.06183
560060.59 4197361.08 0.05426
560070.59 4197361.08 0.04807
560080.59 4197361.08 0.04294
560090.59 4197361.08 0.03862
560100.59 4197361.08 0.03498
560000.59 4197371.08 0.14635
560010.59 4197371.08 0.12076
560020.59 4197371.08 0.10095
560030.59 4197371.08 0.08559
560040.59 4197371.08 0.07349
560050.59 4197371.08 0.06375
560060.59 4197371.08 0.05577
560070.59 4197371.08 0.04925
560080.59 4197371.08 0.04392
560090.59 4197371.08 0.03946
560100.59 4197371.08 0.03572
560000.59 4197381.08 0.15324
560010.59 4197381.08 0.12582
560020.59 4197381.08 0.10467
560030.59 4197381.08 0.08834
560040.59 4197381.08 0.07556
560050.59 4197381.08 0.06537
560060.59 4197381.08 0.05706
560070.59 4197381.08 0.05027
560080.59 4197381.08 0.04475
560090.59 4197381.08 0.04019
560100.59 4197381.08 0.03635

560000.59 4197391.08 0.15892

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.12996	560020.59	4197391.08	0.10773
560030.59	4197391.08	0.09068	560040.59	4197391.08	0.07734
560050.59	4197391.08	0.06674	560060.59	4197391.08	0.05820
560070.59	4197391.08	0.05124	560080.59	4197391.08	0.04554
560090.59	4197391.08	0.04086	560100.59	4197391.08	0.03692
560000.59	4197401.08	0.16325	560010.59	4197401.08	0.13305
560020.59	4197401.08	0.11008	560030.59	4197401.08	0.09249
560040.59	4197401.08	0.07878	560050.59	4197401.08	0.06792
560060.59	4197401.08	0.05921	560070.59	4197401.08	0.05213
560080.59	4197401.08	0.04627	560090.59	4197401.08	0.04146
560100.59	4197401.08	0.03748	560000.59	4197411.08	0.16643
560010.59	4197411.08	0.13538	560020.59	4197411.08	0.11196
560030.59	4197411.08	0.09400	560040.59	4197411.08	0.07999
560050.59	4197411.08	0.06892			

560060.59 4197411.08 0.06005
560070.59 4197411.08 0.05280
560080.59 4197411.08 0.04691
560090.59 4197411.08 0.04205
560100.59 4197411.08 0.03806
560000.59 4197421.08 0.16900
560010.59 4197421.08 0.13751
560020.59 4197421.08 0.11366
560030.59 4197421.08 0.09542
560040.59 4197421.08 0.08117
560050.59 4197421.08 0.06988
560060.59 4197421.08 0.06081
560070.59 4197421.08 0.05349
560080.59 4197421.08 0.04756
560090.59 4197421.08 0.04268
560100.59 4197421.08 0.03861
560000.59 4197431.08 0.17170
560010.59 4197431.08 0.13988
560020.59 4197431.08 0.11554
560030.59 4197431.08 0.09697
560040.59 4197431.08 0.08241
560050.59 4197431.08 0.07087
560060.59 4197431.08 0.06163
560070.59 4197431.08 0.05427
560080.59 4197431.08 0.04824
560090.59 4197431.08 0.04335
560100.59 4197431.08 0.03905
560000.59 4197441.08 0.17460
560010.59 4197441.08 0.14222
560020.59 4197441.08 0.11746
560030.59 4197441.08 0.09853
560040.59 4197441.08 0.08368
560050.59 4197441.08 0.07186
560060.59 4197441.08 0.06252
560070.59 4197441.08 0.05502
560080.59 4197441.08 0.04899
560090.59 4197441.08 0.04395
560100.59 4197441.08 0.03940
560000.59 4197451.08 0.17718
560010.59 4197451.08 0.14420
560020.59 4197451.08 0.11902
560030.59 4197451.08 0.09985
560040.59 4197451.08 0.08475
560050.59 4197451.08 0.07278
560060.59 4197451.08 0.06336
560070.59 4197451.08 0.05579
560080.59 4197451.08 0.04973
560090.59 4197451.08 0.04449
560100.59 4197451.08 0.03989
560000.59 4197461.08 0.17896
560010.59 4197461.08 0.14554
560020.59 4197461.08 0.11998

560030.59 4197461.08 0.10063

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.08549	560050.59	4197461.08	0.07359
560060.59	4197461.08	0.06408	560070.59	4197461.08	0.05654
560080.59	4197461.08	0.05030	560090.59	4197461.08	0.04493
560100.59	4197461.08	0.04034	560000.59	4197471.08	0.17978
560010.59	4197471.08	0.14611	560020.59	4197471.08	0.12034
560030.59	4197471.08	0.10110	560040.59	4197471.08	0.08612
560050.59	4197471.08	0.07419	560060.59	4197471.08	0.06469
560070.59	4197471.08	0.05713	560080.59	4197471.08	0.05062
560090.59	4197471.08	0.04516	560100.59	4197471.08	0.04061
560000.59	4197481.08	0.17968	560010.59	4197481.08	0.14595
560020.59	4197481.08	0.12041	560030.59	4197481.08	0.10138
560040.59	4197481.08	0.08648	560050.59	4197481.08	0.07450
560060.59	4197481.08	0.06513	560070.59	4197481.08	0.05732
560080.59	4197481.08	0.05063			

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560090.59    4197481.08        0.04520
         560100.59    4197481.08        0.04069
560000.59    4197491.08        0.17859
         560010.59    4197491.08        0.14516
560020.59    4197491.08        0.12019
         560030.59    4197491.08        0.10136
560040.59    4197491.08        0.08641
         560050.59    4197491.08        0.07458
560060.59    4197491.08        0.06516
         560070.59    4197491.08        0.05704
560080.59    4197491.08        0.05039
         560090.59    4197491.08        0.04501
560100.59    4197491.08        0.04055
         560000.59    4197501.08        0.17660
560010.59    4197501.08        0.14398
         560020.59    4197501.08        0.11948
560030.59    4197501.08        0.10070
         560040.59    4197501.08        0.08586
560050.59    4197501.08        0.07427
         560060.59    4197501.08        0.06463
560070.59    4197501.08        0.05650
         560080.59    4197501.08        0.04995
560090.59    4197501.08        0.04464
         560100.59    4197501.08        0.04019
559954.71    4197549.49        0.31926
         559973.36    4197549.21        0.25931
559980.26    4197544.34        0.22472
         559978.21    4197528.15        0.25512
559969.70    4197512.85        0.32921
         559971.05    4197308.01        0.14803
559970.20    4197308.43        0.15148
         559912.41    4197414.97        0.30039
559912.33    4197415.37        0.29976
         559959.36    4197429.45        0.39196
559960.20    4197441.75        0.40590
         559926.03    4197543.45        0.27687
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.00052	559615.17	4197121.97	0.00059
559665.17	4197121.97	0.00067	559715.17	4197121.97	0.00077
559765.17	4197121.97	0.00089	559815.17	4197121.97	0.00103
559865.17	4197121.97	0.00119	559915.17	4197121.97	0.00137
559965.17	4197121.97	0.00139	560015.17	4197121.97	0.00127
560065.17	4197121.97	0.00100	560115.17	4197121.97	0.00075
560165.17	4197121.97	0.00058	560215.17	4197121.97	0.00046
560265.17	4197121.97	0.00038	559565.17	4197171.97	0.00056
559615.17	4197171.97	0.00065	559665.17	4197171.97	0.00075
559715.17	4197171.97	0.00088	559765.17	4197171.97	0.00105
559815.17	4197171.97	0.00127	559865.17	4197171.97	0.00156
559915.17	4197171.97	0.00194	559965.17	4197171.97	0.00201

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         560015.17    4197171.97        0.00186
560065.17    4197171.97        0.00128
         560115.17    4197171.97        0.00090
560165.17    4197171.97        0.00068
         560215.17    4197171.97        0.00054
560265.17    4197171.97        0.00044
         559565.17    4197221.97        0.00061
559615.17    4197221.97        0.00070
         559665.17    4197221.97        0.00083
559715.17    4197221.97        0.00099
         559765.17    4197221.97        0.00122
559815.17    4197221.97        0.00155
         559865.17    4197221.97        0.00207
559915.17    4197221.97        0.00302
         559965.17    4197221.97        0.00424
560015.17    4197221.97        0.00319
         560065.17    4197221.97        0.00172
560115.17    4197221.97        0.00113
         560165.17    4197221.97        0.00083
560215.17    4197221.97        0.00063
         560265.17    4197221.97        0.00049
559565.17    4197271.97        0.00064
         559615.17    4197271.97        0.00075
559665.17    4197271.97        0.00088
         559715.17    4197271.97        0.00107
559765.17    4197271.97        0.00134
         559815.17    4197271.97        0.00176
559865.17    4197271.97        0.00253
         559915.17    4197271.97        0.00444
559965.17    4197271.97        0.01313
         560015.17    4197271.97        0.00574
560065.17    4197271.97        0.00234
         560115.17    4197271.97        0.00139
560165.17    4197271.97        0.00094
         560215.17    4197271.97        0.00068
560265.17    4197271.97        0.00053
         559565.17    4197321.97        0.00068
559615.17    4197321.97        0.00080
         559665.17    4197321.97        0.00094
559715.17    4197321.97        0.00114
         559765.17    4197321.97        0.00143
559815.17    4197321.97        0.00186
         559865.17    4197321.97        0.00267
559915.17    4197321.97        0.00416
         560015.17    4197321.97        0.00731
560065.17    4197321.97        0.00267
         560115.17    4197321.97        0.00150
560165.17    4197321.97        0.00099
         560215.17    4197321.97        0.00071
560265.17    4197321.97        0.00055
         559565.17    4197371.97        0.00072
559615.17    4197371.97        0.00085
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         559665.17    4197371.97        0.00101
559715.17    4197371.97        0.00124
         559765.17    4197371.97        0.00154
559815.17    4197371.97        0.00200
```

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.00279	559915.17	4197371.97	0.00398
560015.17	4197371.97	0.00637	560065.17	4197371.97	0.00268
560115.17	4197371.97	0.00155	560165.17	4197371.97	0.00102
560215.17	4197371.97	0.00075	560265.17	4197371.97	0.00056
559565.17	4197421.97	0.00077	559615.17	4197421.97	0.00091
559665.17	4197421.97	0.00111	559715.17	4197421.97	0.00137
559765.17	4197421.97	0.00175	559815.17	4197421.97	0.00232
559865.17	4197421.97	0.00320	559915.17	4197421.97	0.00476
560015.17	4197421.97	0.00500	560065.17	4197421.97	0.00274
560115.17	4197421.97	0.00164	560165.17	4197421.97	0.00112
560215.17	4197421.97	0.00083	560265.17	4197421.97	0.00064
559565.17	4197471.97	0.00080	559615.17	4197471.97	0.00097

559665.17 4197471.97 0.00120
559715.17 4197471.97 0.00154
559765.17 4197471.97 0.00204
559815.17 4197471.97 0.00282
559865.17 4197471.97 0.00402
559915.17 4197471.97 0.00574
560015.17 4197471.97 0.00489
560065.17 4197471.97 0.00291
560115.17 4197471.97 0.00181
560165.17 4197471.97 0.00126
560215.17 4197471.97 0.00093
560265.17 4197471.97 0.00073
559565.17 4197521.97 0.00082
559615.17 4197521.97 0.00101
559665.17 4197521.97 0.00127
559715.17 4197521.97 0.00167
559765.17 4197521.97 0.00229
559815.17 4197521.97 0.00329
559865.17 4197521.97 0.00523
559915.17 4197521.97 0.00982
560015.17 4197521.97 0.00696
560065.17 4197521.97 0.00340
560115.17 4197521.97 0.00206
560165.17 4197521.97 0.00138
560215.17 4197521.97 0.00103
560265.17 4197521.97 0.00079
559565.17 4197571.97 0.00081
559615.17 4197571.97 0.00102
559665.17 4197571.97 0.00130
559715.17 4197571.97 0.00174
559765.17 4197571.97 0.00239
559815.17 4197571.97 0.00354
559865.17 4197571.97 0.00578
559915.17 4197571.97 0.01263
559965.17 4197571.97 0.02592
560015.17 4197571.97 0.00978
560065.17 4197571.97 0.00387
560115.17 4197571.97 0.00222
560165.17 4197571.97 0.00144
560215.17 4197571.97 0.00104
560265.17 4197571.97 0.00080
559565.17 4197621.97 0.00079
559615.17 4197621.97 0.00099
559665.17 4197621.97 0.00129
559715.17 4197621.97 0.00174
559765.17 4197621.97 0.00238
559815.17 4197621.97 0.00379
559865.17 4197621.97 0.00655
559915.17 4197621.97 0.01352
559965.17 4197621.97 0.02498
560015.17 4197621.97 0.01034
560065.17 4197621.97 0.00393

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         560115.17    4197621.97        0.00219
560165.17    4197621.97        0.00145
         560215.17    4197621.97        0.00101
560265.17    4197621.97        0.00075
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00074	559615.17	4197671.97	0.00094
559665.17	4197671.97	0.00123	559715.17	4197671.97	0.00153
559765.17	4197671.97	0.00223	559815.17	4197671.97	0.00403
559865.17	4197671.97	0.00776	559915.17	4197671.97	0.01843
559965.17	4197671.97	0.01939	560015.17	4197671.97	0.00783
560065.17	4197671.97	0.00361	560115.17	4197671.97	0.00209
560165.17	4197671.97	0.00139	560215.17	4197671.97	0.00097
560265.17	4197671.97	0.00069	559565.17	4197721.97	0.00069
559615.17	4197721.97	0.00087	559665.17	4197721.97	0.00112
559715.17	4197721.97	0.00138	559765.17	4197721.97	0.00229
559815.17	4197721.97	0.00394	559865.17	4197721.97	0.00912
559915.17	4197721.97	0.02165	559965.17	4197721.97	0.01174

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         560015.17    4197721.97        0.00567
560065.17    4197721.97        0.00311
         560115.17    4197721.97        0.00189
560165.17    4197721.97        0.00124
         560215.17    4197721.97        0.00087
560265.17    4197721.97        0.00058
         559565.17    4197771.97        0.00064
559615.17    4197771.97        0.00080
         559665.17    4197771.97        0.00103
559715.17    4197771.97        0.00139
         559765.17    4197771.97        0.00203
559815.17    4197771.97        0.00338
         559865.17    4197771.97        0.00772
559915.17    4197771.97        0.01378
         559965.17    4197771.97        0.00718
560015.17    4197771.97        0.00421
         560065.17    4197771.97        0.00259
560115.17    4197771.97        0.00159
         560165.17    4197771.97        0.00111
560215.17    4197771.97        0.00071
         560265.17    4197771.97        0.00047
559565.17    4197821.97        0.00060
         559615.17    4197821.97        0.00069
559665.17    4197821.97        0.00089
         559715.17    4197821.97        0.00130
559765.17    4197821.97        0.00187
         559815.17    4197821.97        0.00298
559865.17    4197821.97        0.00517
         559915.17    4197821.97        0.00642
559965.17    4197821.97        0.00471
         560015.17    4197821.97        0.00316
560065.17    4197821.97        0.00207
         560115.17    4197821.97        0.00141
560165.17    4197821.97        0.00099
         560215.17    4197821.97        0.00064
560265.17    4197821.97        0.00041
         560000.59    4197301.08        0.01054
560010.59    4197301.08        0.00784
         560020.59    4197301.08        0.00592
560030.59    4197301.08        0.00466
         560040.59    4197301.08        0.00381
560050.59    4197301.08        0.00320
         560060.59    4197301.08        0.00275
560070.59    4197301.08        0.00240
         560080.59    4197301.08        0.00212
560090.59    4197301.08        0.00189
         560100.59    4197301.08        0.00170
560000.59    4197311.08        0.01110
         560010.59    4197311.08        0.00818
560020.59    4197311.08        0.00615
         560030.59    4197311.08        0.00482
560040.59    4197311.08        0.00392
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         560050.59    4197311.08        0.00329
560060.59    4197311.08        0.00281
         560070.59    4197311.08        0.00245
560080.59    4197311.08        0.00216
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.00192	560100.59	4197311.08	0.00173
560000.59	4197321.08	0.01132	560010.59	4197321.08	0.00836
560020.59	4197321.08	0.00629	560030.59	4197321.08	0.00493
560040.59	4197321.08	0.00401	560050.59	4197321.08	0.00335
560060.59	4197321.08	0.00286	560070.59	4197321.08	0.00248
560080.59	4197321.08	0.00218	560090.59	4197321.08	0.00194
560100.59	4197321.08	0.00174	560000.59	4197331.08	0.01120
560010.59	4197331.08	0.00836	560020.59	4197331.08	0.00633
560030.59	4197331.08	0.00497	560040.59	4197331.08	0.00404
560050.59	4197331.08	0.00337	560060.59	4197331.08	0.00287
560070.59	4197331.08	0.00249	560080.59	4197331.08	0.00219
560090.59	4197331.08	0.00195	560100.59	4197331.08	0.00175

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         560000.59    4197341.08        0.01075
560010.59    4197341.08        0.00817
         560020.59    4197341.08        0.00625
560030.59    4197341.08        0.00494
         560040.59    4197341.08        0.00402
560050.59    4197341.08        0.00337
         560060.59    4197341.08        0.00287
560070.59    4197341.08        0.00249
         560080.59    4197341.08        0.00219
560090.59    4197341.08        0.00195
         560100.59    4197341.08        0.00175
560000.59    4197351.08        0.01017
         560010.59    4197351.08        0.00782
560020.59    4197351.08        0.00606
         560030.59    4197351.08        0.00484
560040.59    4197351.08        0.00398
         560050.59    4197351.08        0.00334
560060.59    4197351.08        0.00286
         560070.59    4197351.08        0.00249
560080.59    4197351.08        0.00220
         560090.59    4197351.08        0.00196
560100.59    4197351.08        0.00176
         560000.59    4197361.08        0.00975
560010.59    4197361.08        0.00747
         560020.59    4197361.08        0.00586
560030.59    4197361.08        0.00473
         560040.59    4197361.08        0.00393
560050.59    4197361.08        0.00332
         560060.59    4197361.08        0.00286
560070.59    4197361.08        0.00249
         560080.59    4197361.08        0.00221
560090.59    4197361.08        0.00197
         560100.59    4197361.08        0.00177
560000.59    4197371.08        0.00912
         560010.59    4197371.08        0.00712
560020.59    4197371.08        0.00567
         560030.59    4197371.08        0.00464
560040.59    4197371.08        0.00388
         560050.59    4197371.08        0.00330
560060.59    4197371.08        0.00285
         560070.59    4197371.08        0.00250
560080.59    4197371.08        0.00221
         560090.59    4197371.08        0.00198
560100.59    4197371.08        0.00178
         560000.59    4197381.08        0.00831
560010.59    4197381.08        0.00673
         560020.59    4197381.08        0.00549
560030.59    4197381.08        0.00455
         560040.59    4197381.08        0.00384
560050.59    4197381.08        0.00329
         560060.59    4197381.08        0.00286
560070.59    4197381.08        0.00251
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          560080.59    4197381.08        0.00223
560090.59    4197381.08        0.00200
          560100.59    4197381.08        0.00180
560000.59    4197391.08        0.00750
```

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.00631	560020.59	4197391.08	0.00528
560030.59	4197391.08	0.00446	560040.59	4197391.08	0.00381
560050.59	4197391.08	0.00329	560060.59	4197391.08	0.00287
560070.59	4197391.08	0.00253	560080.59	4197391.08	0.00225
560090.59	4197391.08	0.00201	560100.59	4197391.08	0.00182
560000.59	4197401.08	0.00678	560010.59	4197401.08	0.00590
560020.59	4197401.08	0.00508	560030.59	4197401.08	0.00436
560040.59	4197401.08	0.00377	560050.59	4197401.08	0.00328
560060.59	4197401.08	0.00288	560070.59	4197401.08	0.00255
560080.59	4197401.08	0.00227	560090.59	4197401.08	0.00203
560100.59	4197401.08	0.00184	560000.59	4197411.08	0.00620
560010.59	4197411.08	0.00554	560020.59	4197411.08	0.00488

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         560030.59    4197411.08        0.00427
560040.59    4197411.08        0.00373
         560050.59    4197411.08        0.00327
560060.59    4197411.08        0.00289
         560070.59    4197411.08        0.00256
560080.59    4197411.08        0.00229
         560090.59    4197411.08        0.00205
560100.59    4197411.08        0.00186
         560000.59    4197421.08        0.00578
560010.59    4197421.08        0.00527
         560020.59    4197421.08        0.00472
560030.59    4197421.08        0.00419
         560040.59    4197421.08        0.00370
560050.59    4197421.08        0.00327
         560060.59    4197421.08        0.00289
560070.59    4197421.08        0.00257
         560080.59    4197421.08        0.00230
560090.59    4197421.08        0.00208
         560100.59    4197421.08        0.00189
560000.59    4197431.08        0.00549
         560010.59    4197431.08        0.00507
560020.59    4197431.08        0.00460
         560030.59    4197431.08        0.00413
560040.59    4197431.08        0.00368
         560050.59    4197431.08        0.00327
560060.59    4197431.08        0.00290
         560070.59    4197431.08        0.00259
560080.59    4197431.08        0.00233
         560090.59    4197431.08        0.00211
560100.59    4197431.08        0.00191
         560000.59    4197441.08        0.00532
560010.59    4197441.08        0.00496
         560020.59    4197441.08        0.00454
560030.59    4197441.08        0.00410
         560040.59    4197441.08        0.00368
560050.59    4197441.08        0.00328
         560060.59    4197441.08        0.00292
560070.59    4197441.08        0.00262
         560080.59    4197441.08        0.00236
560090.59    4197441.08        0.00213
         560100.59    4197441.08        0.00193
560000.59    4197451.08        0.00527
         560010.59    4197451.08        0.00492
560020.59    4197451.08        0.00452
         560030.59    4197451.08        0.00410
560040.59    4197451.08        0.00369
         560050.59    4197451.08        0.00330
560060.59    4197451.08        0.00295
         560070.59    4197451.08        0.00265
560080.59    4197451.08        0.00239
         560090.59    4197451.08        0.00216
560100.59    4197451.08        0.00196
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         560000.59    4197461.08        0.00533
560010.59    4197461.08        0.00495
         560020.59    4197461.08        0.00455
560030.59    4197461.08        0.00413
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.00372	560050.59	4197461.08	0.00334
560060.59	4197461.08	0.00299	560070.59	4197461.08	0.00269
560080.59	4197461.08	0.00243	560090.59	4197461.08	0.00220
560100.59	4197461.08	0.00200	560000.59	4197471.08	0.00549
560010.59	4197471.08	0.00508	560020.59	4197471.08	0.00464
560030.59	4197471.08	0.00421	560040.59	4197471.08	0.00379
560050.59	4197471.08	0.00340	560060.59	4197471.08	0.00305
560070.59	4197471.08	0.00275	560080.59	4197471.08	0.00248
560090.59	4197471.08	0.00224	560100.59	4197471.08	0.00204
560000.59	4197481.08	0.00577	560010.59	4197481.08	0.00529
560020.59	4197481.08	0.00480	560030.59	4197481.08	0.00433
560040.59	4197481.08	0.00389	560050.59	4197481.08	0.00348

```
         560060.59    4197481.08        0.00313
560070.59    4197481.08        0.00281
         560080.59    4197481.08        0.00253
560090.59    4197481.08        0.00229
         560100.59    4197481.08        0.00209
560000.59    4197491.08        0.00619
         560010.59    4197491.08        0.00561
560020.59    4197491.08        0.00504
         560030.59    4197491.08        0.00452
560040.59    4197491.08        0.00403
         560050.59    4197491.08        0.00359
560060.59    4197491.08        0.00322
         560070.59    4197491.08        0.00288
560080.59    4197491.08        0.00259
         560090.59    4197491.08        0.00235
560100.59    4197491.08        0.00215
         560000.59    4197501.08        0.00679
560010.59    4197501.08        0.00606
         560020.59    4197501.08        0.00538
560030.59    4197501.08        0.00475
         560040.59    4197501.08        0.00420
560050.59    4197501.08        0.00373
         560060.59    4197501.08        0.00332
560070.59    4197501.08        0.00296
         560080.59    4197501.08        0.00267
560090.59    4197501.08        0.00242
         560100.59    4197501.08        0.00221
559954.71    4197549.49        0.01995
         559973.36    4197549.21        0.02058
559980.26    4197544.34        0.01796
         559978.21    4197528.15        0.01306
559969.70    4197512.85        0.01020
         559971.05    4197308.01        0.02088
559970.20    4197308.43        0.02133
         559912.41    4197414.97        0.00459
559912.33    4197415.37        0.00459
         559959.36    4197429.45        0.00602
559960.20    4197441.75        0.00588
         559926.03    4197543.45        0.01581
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
Y1_ALL	1ST HIGHEST VALUE IS	0.42756 AT (559960.20, 4197441.75, 15.15, 306.41, 1.50)	DC	
	2ND HIGHEST VALUE IS	0.41325 AT (559959.36, 4197429.45, 15.09, 306.41, 1.50)	DC	
	3RD HIGHEST VALUE IS	0.35283 AT (559954.71, 4197549.49, 15.67, 306.41, 1.50)	DC	
	4TH HIGHEST VALUE IS	0.35268 AT (559969.70, 4197512.85, 15.95, 306.41, 1.50)	DC	
	5TH HIGHEST VALUE IS	0.33227 AT (559915.17, 4197421.97, 14.73, 306.41, 1.50)	DC	
	6TH HIGHEST VALUE IS	0.31666 AT (559912.41, 4197414.97, 15.28, 306.41, 1.50)	DC	
	7TH HIGHEST VALUE IS	0.31600 AT (559912.33, 4197415.37, 15.26, 306.41, 1.50)	DC	
	8TH HIGHEST VALUE IS	0.31034 AT (559915.17, 4197471.97, 15.23, 306.41, 1.50)	DC	
	9TH HIGHEST VALUE IS	0.30435 AT (559926.03, 4197543.45, 15.36, 306.41, 1.50)	DC	
	10TH HIGHEST VALUE IS	0.29125 AT (559973.36, 4197549.21, 16.29, 306.41, 1.50)	DC	
Y1_ON	1ST HIGHEST VALUE IS	0.42128 AT (559960.20, 4197441.75, 15.15, 306.41, 1.50)	DC	
	2ND HIGHEST VALUE IS	0.40682 AT (559959.36, 4197429.45, 15.09, 306.41, 1.50)	DC	
	3RD HIGHEST VALUE IS	0.34180 AT (559969.70, 4197512.85, 15.95, 306.41, 1.50)	DC	
	4TH HIGHEST VALUE IS	0.33150 AT (559954.71,		

```
4197549.49,    15.67,   306.41,    1.50)  DC
          5TH HIGHEST VALUE IS      0.32719 AT (  559915.17,
4197421.97,    14.73,   306.41,    1.50)  DC
          6TH HIGHEST VALUE IS      0.31175 AT (  559912.41,
4197414.97,    15.28,   306.41,    1.50)  DC
          7TH HIGHEST VALUE IS      0.31109 AT (  559912.33,
4197415.37,    15.26,   306.41,    1.50)  DC
          8TH HIGHEST VALUE IS      0.30421 AT (  559915.17,
4197471.97,    15.23,   306.41,    1.50)  DC
          9TH HIGHEST VALUE IS      0.28747 AT (  559926.03,
4197543.45,    15.36,   306.41,    1.50)  DC
         10TH HIGHEST VALUE IS      0.28032 AT (  559915.17,
4197521.97,    15.78,   306.41,    1.50)  DC

Y1_OFF    1ST HIGHEST VALUE IS      0.02771 AT (  559965.17,
4197571.97,    16.24,   306.41,    1.50)  DC
          2ND HIGHEST VALUE IS      0.02668 AT (  559965.17,
4197621.97,    16.80,   306.41,    1.50)  DC
          3RD HIGHEST VALUE IS      0.02312 AT (  559915.17,
4197721.97,    17.04,   306.41,    1.50)  DC
          4TH HIGHEST VALUE IS      0.02278 AT (  559970.20,
4197308.43,    15.78,   306.41,    1.50)  DC
          5TH HIGHEST VALUE IS      0.02230 AT (  559971.05,
4197308.01,    15.55,   306.41,    1.50)  DC
          6TH HIGHEST VALUE IS      0.02199 AT (  559973.36,
4197549.21,    16.29,   306.41,    1.50)  DC
          7TH HIGHEST VALUE IS      0.02133 AT (  559954.71,
4197549.49,    15.67,   306.41,    1.50)  DC
          8TH HIGHEST VALUE IS      0.02070 AT (  559965.17,
4197671.97,    17.07,   306.41,    1.50)  DC
          9TH HIGHEST VALUE IS      0.01968 AT (  559915.17,
4197671.97,    16.52,   306.41,    1.50)  DC
         10TH HIGHEST VALUE IS      0.01918 AT (  559980.26,
4197544.34,    16.44,   306.41,    1.50)  DC

Y2_ALL    1ST HIGHEST VALUE IS      0.41177 AT (  559960.20,
4197441.75,    15.15,   306.41,    1.50)  DC
          2ND HIGHEST VALUE IS      0.39798 AT (  559959.36,
4197429.45,    15.09,   306.41,    1.50)  DC
          3RD HIGHEST VALUE IS      0.33940 AT (  559969.70,
4197512.85,    15.95,   306.41,    1.50)  DC
          4TH HIGHEST VALUE IS      0.33922 AT (  559954.71,
4197549.49,    15.67,   306.41,    1.50)  DC
          5TH HIGHEST VALUE IS      0.32002 AT (  559915.17,
4197421.97,    14.73,   306.41,    1.50)  DC
          6TH HIGHEST VALUE IS      0.30499 AT (  559912.41,
4197414.97,    15.28,   306.41,    1.50)  DC
          7TH HIGHEST VALUE IS      0.30436 AT (  559912.33,
4197415.37,    15.26,   306.41,    1.50)  DC
          8TH HIGHEST VALUE IS      0.29880 AT (  559915.17,
4197471.97,    15.23,   306.41,    1.50)  DC
          9TH HIGHEST VALUE IS      0.29268 AT (  559926.03,
```

```
4197543.45,    15.36,   306.41,    1.50)  DC
         10TH HIGHEST VALUE IS       0.27989 AT (  559973.36,
4197549.21,    16.29,   306.41,    1.50)  DC
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
Y2_ON	1ST HIGHEST VALUE IS	0.40590 AT (559960.20, 4197441.75, 15.15, 306.41, 1.50)	DC	
	2ND HIGHEST VALUE IS	0.39196 AT (559959.36, 4197429.45, 15.09, 306.41, 1.50)	DC	
	3RD HIGHEST VALUE IS	0.32921 AT (559969.70, 4197512.85, 15.95, 306.41, 1.50)	DC	
	4TH HIGHEST VALUE IS	0.31926 AT (559954.71, 4197549.49, 15.67, 306.41, 1.50)	DC	
	5TH HIGHEST VALUE IS	0.31527 AT (559915.17, 4197421.97, 14.73, 306.41, 1.50)	DC	
	6TH HIGHEST VALUE IS	0.30039 AT (559912.41, 4197414.97, 15.28, 306.41, 1.50)	DC	
	7TH HIGHEST VALUE IS	0.29976 AT (559912.33, 4197415.37, 15.26, 306.41, 1.50)	DC	
	8TH HIGHEST VALUE IS	0.29306 AT (559915.17, 4197471.97, 15.23, 306.41, 1.50)	DC	
	9TH HIGHEST VALUE IS	0.27687 AT (559926.03, 4197543.45, 15.36, 306.41, 1.50)	DC	
	10TH HIGHEST VALUE IS	0.26998 AT (559915.17, 4197521.97, 15.78, 306.41, 1.50)	DC	
Y2_OFF	1ST HIGHEST VALUE IS	0.02592 AT (559965.17, 4197571.97, 16.24, 306.41, 1.50)	DC	
	2ND HIGHEST VALUE IS	0.02498 AT (559965.17, 4197621.97, 16.80, 306.41, 1.50)	DC	
	3RD HIGHEST VALUE IS	0.02165 AT (559915.17, 4197721.97, 17.04, 306.41, 1.50)	DC	
	4TH HIGHEST VALUE IS	0.02133 AT (559970.20,		

```
4197308.43,    15.78,   306.41,    1.50)  DC
          5TH HIGHEST VALUE IS       0.02088 AT (  559971.05,
4197308.01,    15.55,   306.41,    1.50)  DC
          6TH HIGHEST VALUE IS       0.02058 AT (  559973.36,
4197549.21,    16.29,   306.41,    1.50)  DC
          7TH HIGHEST VALUE IS       0.01995 AT (  559954.71,
4197549.49,    15.67,   306.41,    1.50)  DC
          8TH HIGHEST VALUE IS       0.01939 AT (  559965.17,
4197671.97,    17.07,   306.41,    1.50)  DC
          9TH HIGHEST VALUE IS       0.01843 AT (  559915.17,
4197671.97,    16.52,   306.41,    1.50)  DC
         10TH HIGHEST VALUE IS       0.01796 AT (  559980.26,
4197544.34,    16.44,   306.41,    1.50)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\El
Cerrito_EastshoreBlvd\El Cerrito_EastshoreBlvd.isc       ***
01/25/23
 *** AERMET - VERSION  18081 ***   ***
***        15:52:49

PAGE  52
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  SigA
Data

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of         2128 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of            2 Calm Hours Identified

 A Total of         2126 Missing Hours Identified (  4.85
Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     244       PFLCNV: Turbulence data is being used w/o
ADJ_U* option       SigA Data
 MX W403       1       PFLCNV: Turbulence data is being used w/o
ADJ_U* option       SigA Data

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 1/25/2023
** File: C:\Lakes\El Cerrito_EastshoreBlvd_T4\El
Cerrito_EastshoreBlvd_T4.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\El Cerrito_EastshoreBlvd_T4\El
Cerrito_EastshoreBlvd_T4.isc
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 4623264 SF-Bay_Area_MSA
   POLLUTID PM_2.5
   FLAGPOLE 1.50
   RUNORNOT RUN
   ERRORFIL "El Cerrito_EastshoreBlvd_T4.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   559927.098  4197543.211
15.360
** DESCRSRC Y1_ON-N
   LOCATION PAREA2       AREAPOLY   559960.547  4197441.525
15.150
** DESCRSRC Y1_ON-S
   LOCATION PAREA3       AREAPOLY   559927.100  4197543.210
15.360
** DESCRSRC Y2_ON-N
   LOCATION PAREA4       AREAPOLY   559960.550  4197441.520
15.150
** DESCRSRC Y2_ON-S
** ----------------------------------------------------------------
```

```
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN1
** DESCRSRC Y1_N_PD
** PREFIX
** Length of Side = 11.00
** Ratio = 10
** Vertical Dimension = 0.00
** Emission Rate = 3.9844E-08
** Nodes = 4
** 559929.802, 4197545.940, 15.41, 4.15
** 559932.651, 4197553.084, 15.40, 4.15
** 559945.297, 4197556.533, 15.55, 4.15
** 559974.117, 4197558.909, 16.24, 4.15
** ----------------------------------------------------------------
-------
   LOCATION A0000013     AREA     559934.911 4197543.903 15.39
   LOCATION A0000014     AREA     559934.098 4197547.778 15.39
   LOCATION A0000015     AREA     559945.749 4197551.052 15.53
** End of LINE AREA Source ID = ARLN1
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN2
** DESCRSRC Y1_N_R
** PREFIX
** Length of Side = 29.00
** Ratio = 10
** Vertical Dimension = 0.00
** Emission Rate = 1.5116E-08
** Nodes = 5
** 559974.161, 4197559.024, 16.24, 4.15
** 559996.768, 4197564.898, 16.72, 4.15
** 559988.985, 4197582.372, 16.78, 4.15
** 559981.128, 4197605.199, 16.80, 4.15
** 559893.090, 4197763.735, 17.16, 4.15
** ----------------------------------------------------------------
-------
   LOCATION A0000007     AREA     559977.807 4197544.990 16.39
   LOCATION A0000008     AREA     560010.014 4197570.797 16.71
   LOCATION A0000009     AREA     560002.696 4197587.092 16.71
   LOCATION A0000010     AREA     559993.805 4197612.239 16.74
** End of LINE AREA Source ID = ARLN2
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN3
** DESCRSRC Y1_S_R
** PREFIX
** Length of Side = 23.00
** Ratio = 10
** Vertical Dimension = 0.00
```

```
** Emission Rate = 1.9065E-08
** Nodes = 3
** 559972.797, 4197354.525, 14.51, 4.15
** 559981.883, 4197353.090, 14.61, 4.15
** 559984.275, 4197263.417, 14.20, 4.15
** ----------------------------------------------------------------
-------
   LOCATION A0000011     AREA     559971.003 4197343.166 14.42
   LOCATION A0000012     AREA     559970.388 4197352.784 14.47
** End of LINE AREA Source ID = ARLN3
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN4
** DESCRSRC Y2_N_PD
** PREFIX
** Length of Side = 11.00
** Ratio = 10
** Vertical Dimension = 0.00
** Emission Rate = 3.7301E-08
** Nodes = 4
** 559929.800, 4197545.940, 15.41, 4.15
** 559932.650, 4197553.080, 15.40, 4.15
** 559945.300, 4197556.530, 15.55, 4.15
** 559974.120, 4197558.910, 16.24, 4.15
** ----------------------------------------------------------------
-------
   LOCATION A0000016     AREA     559934.908 4197543.901 15.39
   LOCATION A0000017     AREA     559934.097 4197547.774 15.39
   LOCATION A0000018     AREA     559945.753 4197551.049 15.54
** End of LINE AREA Source ID = ARLN4
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN5
** DESCRSRC Y2_N_R
** PREFIX
** Length of Side = 29.00
** Ratio = 10
** Vertical Dimension = 0.00
** Emission Rate = 1.4156E-08
** Nodes = 5
** 559974.160, 4197559.020, 16.24, 4.15
** 559996.770, 4197564.900, 16.72, 4.15
** 559988.990, 4197582.370, 16.78, 4.15
** 559981.130, 4197605.200, 16.80, 4.15
** 559893.090, 4197763.730, 17.16, 4.15
** ----------------------------------------------------------------
-------
   LOCATION A0000019     AREA     559977.810 4197544.987 16.39
   LOCATION A0000020     AREA     560010.016 4197570.799 16.71
   LOCATION A0000021     AREA     560002.700 4197587.090 16.71
```

```
   LOCATION A0000022     AREA     559993.806 4197612.240 16.74
** End of LINE AREA Source ID = ARLN5
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN6
** DESCRSRC Y2_S_R
** PREFIX
** Length of Side = 23.00
** Ratio = 10
** Vertical Dimension = 0.00
** Emission Rate = 1.7849E-08
** Nodes = 3
** 559972.800, 4197354.530, 14.51, 4.15
** 559981.880, 4197353.090, 14.61, 4.15
** 559984.270, 4197263.420, 14.20, 4.15
** ------------------------------------------------------------
-------
   LOCATION A0000023     AREA     559970.999 4197343.172 14.42
   LOCATION A0000024     AREA     559970.384 4197352.784 14.47
** End of LINE AREA Source ID = ARLN6
** Source Parameters **
   SRCPARAM PAREA1       7.912E-08     5.000         9
   AREAVERT PAREA1       559927.098 4197543.211 559960.572
4197441.717
   AREAVERT PAREA1       559970.695 4197442.279 559969.289
4197512.861
   AREAVERT PAREA1       559977.444 4197528.046 559979.694
4197544.075
   AREAVERT PAREA1       559972.945 4197548.855 559955.229
4197548.855
   AREAVERT PAREA1       559939.201 4197546.043
   SRCPARAM PAREA2       7.9121E-08     5.000         5
   AREAVERT PAREA2       559960.547 4197441.525 559959.674
4197429.258
   AREAVERT PAREA2       559912.692 4197415.017 559970.703
4197308.969
   AREAVERT PAREA2       559970.429 4197441.985
   SRCPARAM PAREA3       7.1649E-08     5.000         9
   AREAVERT PAREA3       559927.100 4197543.210 559960.570
4197441.720
   AREAVERT PAREA3       559970.700 4197442.280 559969.290
4197512.860
   AREAVERT PAREA3       559977.440 4197528.050 559979.690
4197544.070
   AREAVERT PAREA3       559972.940 4197548.860 559955.230
4197548.860
   AREAVERT PAREA3       559939.200 4197546.040
   SRCPARAM PAREA4       7.1649E-08     5.000         5
   AREAVERT PAREA4       559960.550 4197441.520 559959.670
4197429.260
   AREAVERT PAREA4       559912.690 4197415.020 559970.700
```

```
4197308.970
   AREAVERT PAREA4       559970.430 4197441.980
** LINE AREA Source ID = ARLN1
   SRCPARAM A0000013     3.9844E-08     4.150     7.690
11.000   -68.260
   SRCPARAM A0000014     3.9844E-08     4.150    13.109
11.000   -15.255
   SRCPARAM A0000015     3.9844E-08     4.150    28.917
11.000    -4.713
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN2
   SRCPARAM A0000007     1.5116E-08     4.150    23.358
29.000   -14.564
   SRCPARAM A0000008     1.5116E-08     4.150    19.130
29.000  -114.007
   SRCPARAM A0000009     1.5116E-08     4.150    24.141
29.000  -108.994
   SRCPARAM A0000010     1.5116E-08     4.150   181.340
29.000  -119.044
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN3
   SRCPARAM A0000011     1.9065E-08     4.150     9.199    23.000
8.973
   SRCPARAM A0000012     1.9065E-08     4.150    89.705    23.000
88.472
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN4
   SRCPARAM A0000016     3.7301E-08     4.150     7.688
11.000   -68.240
   SRCPARAM A0000017     3.7301E-08     4.150    13.112
11.000   -15.255
   SRCPARAM A0000018     3.7301E-08     4.150    28.918
11.000    -4.721
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN5
   SRCPARAM A0000019     1.4156E-08     4.150    23.362
29.000   -14.578
   SRCPARAM A0000020     1.4156E-08     4.150    19.124
29.000  -114.005
   SRCPARAM A0000021     1.4156E-08     4.150    24.145
29.000  -108.998
   SRCPARAM A0000022     1.4156E-08     4.150   181.336
29.000  -119.046
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN6
   SRCPARAM A0000023     1.7849E-08     4.150     9.193    23.000
9.012
```

```
   SRCPARAM A0000024     1.7849E-08     4.150    89.702    23.000
88.473
** ------------------------------------------------------------
-------
   URBANSRC ALL
   SRCGROUP Y1_ALL   A0000013 A0000014 A0000015 A0000007 A0000008
A0000009
   SRCGROUP Y1_ALL   A0000010 PAREA1 PAREA2 A0000011 A0000012
   SRCGROUP Y1_ON    PAREA1 PAREA2
   SRCGROUP Y1_OFF   A0000013 A0000014 A0000015 A0000007 A0000008
A0000009
   SRCGROUP Y1_OFF   A0000010 A0000011 A0000012
   SRCGROUP Y2_ALL   PAREA3 PAREA4 A0000016 A0000017 A0000018
A0000019 A0000020
   SRCGROUP Y2_ALL   A0000021 A0000022 A0000023 A0000024
   SRCGROUP Y2_ON    PAREA3 PAREA4
   SRCGROUP Y2_OFF   A0000016 A0000017 A0000018 A0000019 A0000020
A0000021
   SRCGROUP Y2_OFF   A0000022 A0000023 A0000024
SO FINISHED
**
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** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "El Cerrito_EastshoreBlvd_T4.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "Z:\Shared\San Jose\Env\16240_El Cerrito Eastshore
Blvd Apt AQ Constrn HRA & NOI Studies\Project-Data\AERMOD\Chevron
\CHEVRON_2013-2017_compiled.sfc"
   PROFFILE "Z:\Shared\San Jose\Env\16240_El Cerrito Eastshore
Blvd Apt AQ Constrn HRA & NOI Studies\Project-Data\AERMOD\Chevron
\CHEVRON_2013-2017_compiled.PFL"
   SURFDATA 23230 2013 OAKLAND/WSO_AP
   UAIRDATA 23230 2013 OAKLAND/WSO_AP
   SITEDATA 2703 2013
   PROFBASE 1.5 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
```

```
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD Y1_ALL "EL CERRITO_EASTSHOREBLVD_T4.AD
\PE00G001.PLT" 31
   PLOTFILE PERIOD Y1_ON "EL CERRITO_EASTSHOREBLVD_T4.AD
\PE00G002.PLT" 32
   PLOTFILE PERIOD Y1_OFF "EL CERRITO_EASTSHOREBLVD_T4.AD
\PE00G003.PLT" 33
   PLOTFILE PERIOD Y2_ALL "EL CERRITO_EASTSHOREBLVD_T4.AD
\PE00G004.PLT" 34
   PLOTFILE PERIOD Y2_ON "EL CERRITO_EASTSHOREBLVD_T4.AD
\PE00G005.PLT" 35
   PLOTFILE PERIOD Y2_OFF "EL CERRITO_EASTSHOREBLVD_T4.AD
\PE00G006.PLT" 36
   SUMMFILE "El Cerrito_EastshoreBlvd_T4.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     244       PFLCNV: Turbulence data is being used w/o
ADJ_U* option       SigA Data

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\El
Cerrito_EastshoreBlvd_T4\El Cerrito_EastshoreBlvd_T4.isc ***
01/25/23
 *** AERMET - VERSION  18081 ***   ***
***        14:40:12

PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  SigA
Data

                                              ***     MODEL SETUP
OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration
Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    22
Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   4623264.0 ;  Urban Roughness Length =
1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP
substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates PERIOD Averages Only

 **This Run Includes:     22 Source(s);       6 Source Group(s);
and     463 Receptor(s)

               with:      0 POINT(s), including
```

```
                              0 POINTCAP(s) and      0 POINTHOR(s)
                  and:        0 VOLUME source(s)
                  and:       22 AREA type source(s)
                  and:        0 LINE source(s)
                  and:        0 RLINE/RLINEXT source(s)
                  and:        0 OPENPIT source(s)
                  and:        0 BUOYANT LINE source(s) with a total
of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  18081

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs External File(s) of High Values for
Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked
Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:
c for Calm Hours

m for Missing Hours

b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =
1.50 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units =
GRAMS/SEC                                   ;  Emission Rate Unit
Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of
RAM.

 **Input Runstream File:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   El Cerrito_EastshoreBlvd_T4.err
 **File for Summary of Results:   El Cerrito_EastshoreBlvd_T4.sum
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
A0000013	0	0.39844E-07	559934.9	4197543.9	15.4	4.15	7.69	11.00	-68.26	0.00	YES	
A0000014	0	0.39844E-07	559934.1	4197547.8	15.4	4.15	13.11	11.00	-15.26	0.00	YES	
A0000015	0	0.39844E-07	559945.7	4197551.1	15.5	4.15	28.92	11.00	-4.71	0.00	YES	
A0000007	0	0.15116E-07	559977.8	4197545.0	16.4	4.15	23.36	29.00	-14.56	0.00	YES	
A0000008	0	0.15116E-07	560010.0	4197570.8	16.7	4.15	19.13	29.00	-114.01	0.00	YES	
A0000009	0	0.15116E-07	560002.7	4197587.1	16.7	4.15	24.14	29.00	-108.99	0.00	YES	
A0000010	0	0.15116E-07	559993.8	4197612.2	16.7	4.15	181.34	29.00	-119.04	0.00	YES	
A0000011	0	0.19065E-07	559971.0	4197343.2	14.4	4.15	9.20	23.00	8.97	0.00	YES	
A0000012	0	0.19065E-07	559970.4	4197352.8	14.5	4.15	89.70	23.00	88.47	0.00	YES	
A0000016	0	0.37301E-07	559934.9	4197543.9	15.4	4.15	7.69	11.00	-68.24	0.00	YES	
A0000017	0	0.37301E-07	559934.1	4197547.8	15.4	4.15	13.11	11.00	-15.26	0.00	YES	
A0000018	0	0.37301E-07	559945.8	4197551.0	15.5	4.15	28.92	11.00	-4.72	0.00	YES	
A0000019	0	0.14156E-07	559977.8	4197545.0	16.4	4.15	23.36	29.00	-14.58	0.00	YES	

A0000020	0	0.14156E-07	560010.0	4197570.8	16.7		
4.15	19.12	29.00	-114.00	0.00	YES		
A0000021	0	0.14156E-07	560002.7	4197587.1	16.7		
4.15	24.14	29.00	-109.00	0.00	YES		
A0000022	0	0.14156E-07	559993.8	4197612.2	16.7		
4.15	181.34	29.00	-119.05	0.00	YES		
A0000023	0	0.17849E-07	559971.0	4197343.2	14.4		
4.15	9.19	23.00	9.01	0.00	YES		
A0000024	0	0.17849E-07	559970.4	4197352.8	14.5		
4.15	89.70	23.00	88.47	0.00	YES		

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE INIT. (GRAMS/SEC /METER**2)	URBAN SOURCE	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	SZ (METERS)	BASE ELEV. SCALAR VARY BY
PAREA1	0	0.79120E-07	9	559927.1	4197543.2	15.4	5.00	9	0.00	YES
PAREA2	0	0.79121E-07	5	559960.5	4197441.5	15.2	5.00	5	0.00	YES
PAREA3	0	0.71649E-07	9	559927.1	4197543.2	15.4	5.00	9	0.00	YES
PAREA4	0	0.71649E-07	5	559960.6	4197441.5	15.2	5.00	5	0.00	YES

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
Y1_ALL	PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,
Y1_ON	PAREA1 , PAREA2 ,
Y1_OFF	A0000013 , A0000014 , A0000015 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,
Y2_ALL	PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,
Y2_ON	PAREA3 , PAREA4 ,
Y2_OFF	A0000016 , A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	4623264.	PAREA1 , PAREA2 , PAREA3 , PAREA4 , A0000013 , A0000014 , A0000015 , A0000007 ,
		A0000008 , A0000009 , A0000010 , A0000011 , A0000012 , A0000016 , A0000017 , A0000018 ,
		A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(559565.2, 4197122.0, 9.5, 306.4, 1.5);
(559615.2, 4197122.0, 10.1, 306.4, 1.5);
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(559715.2, 4197122.0, 10.3, 306.4, 1.5);
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(559865.2, 4197122.0, 11.6, 306.4, 1.5);
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(559965.2, 4197122.0, 18.6, 306.4, 1.5);
(560015.2, 4197122.0, 16.4, 306.4, 1.5);
(560065.2, 4197122.0, 14.2, 306.4, 1.5);
(560115.2, 4197122.0, 15.2, 306.4, 1.5);
(560165.2, 4197122.0, 15.9, 306.4, 1.5);
(560215.2, 4197122.0, 17.2, 306.4, 1.5);
(560265.2, 4197122.0, 17.8, 306.4, 1.5);
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(559615.2, 4197172.0, 10.8, 306.4, 1.5);
(559665.2, 4197172.0, 11.2, 306.4, 1.5);
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(559915.2, 4197172.0, 13.2, 306.4, 1.5);
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(560015.2, 4197172.0, 15.3, 306.4, 1.5);
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(560165.2, 4197172.0, 16.2, 306.4, 1.5);
(560215.2, 4197172.0, 17.0, 306.4, 1.5);
(560265.2, 4197172.0, 17.5, 306.4, 1.5);
(559565.2, 4197222.0, 11.2, 306.4, 1.5);
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(559665.2, 4197222.0, 11.7, 306.4, 1.5);
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( 560265.2, 4197272.0,      17.6,     306.4,       1.5);
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( 559615.2, 4197322.0,      12.9,     306.4,       1.5);
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( 559615.2, 4197422.0,      13.9,     306.4,       1.5);
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

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     ( 560265.2, 4197572.0,      20.5,     306.4,       1.5);
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( 560065.2, 4197622.0,      17.7,     306.4,       1.5);
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( 560165.2, 4197622.0,      18.6,     306.4,       1.5);
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     ( 559965.2, 4197672.0,      17.1,     306.4,       1.5);
( 560015.2, 4197672.0,      18.5,     306.4,       1.5);
     ( 560065.2, 4197672.0,      19.0,     306.4,       1.5);
( 560115.2, 4197672.0,      19.6,     306.4,       1.5);
     ( 560165.2, 4197672.0,      19.4,     306.4,       1.5);
( 560215.2, 4197672.0,      20.0,     306.4,       1.5);
     ( 560265.2, 4197672.0,      22.2,     306.4,       1.5);
( 559565.2, 4197722.0,      16.0,     306.4,       1.5);
     ( 559615.2, 4197722.0,      15.6,     306.4,       1.5);
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( 559665.2, 4197722.0,      18.3,     306.4,       1.5);
     ( 559715.2, 4197722.0,      21.8,     306.4,       1.5);
( 559765.2, 4197722.0,      16.8,     306.4,       1.5);
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(559815.2, 4197722.0, 16.1, 306.4, 1.5);
(559865.2, 4197722.0, 16.9, 306.4, 1.5);
(559915.2, 4197722.0, 17.0, 306.4, 1.5);
(559965.2, 4197722.0, 18.0, 306.4, 1.5);
(560015.2, 4197722.0, 19.4, 306.4, 1.5);
(560065.2, 4197722.0, 19.5, 306.4, 1.5);
(560115.2, 4197722.0, 20.0, 306.4, 1.5);
(560165.2, 4197722.0, 20.4, 306.4, 1.5);
(560215.2, 4197722.0, 21.9, 306.4, 1.5);
(560265.2, 4197722.0, 26.1, 306.4, 1.5);
(559565.2, 4197772.0, 15.8, 306.4, 1.5);
(559615.2, 4197772.0, 16.0, 306.4, 1.5);
(559665.2, 4197772.0, 16.2, 306.4, 1.5);
(559715.2, 4197772.0, 16.6, 306.4, 1.5);
(559765.2, 4197772.0, 16.3, 306.4, 1.5);
(559815.2, 4197772.0, 16.3, 306.4, 1.5);
(559865.2, 4197772.0, 16.9, 306.4, 1.5);
(559915.2, 4197772.0, 17.1, 306.4, 1.5);
(559965.2, 4197772.0, 18.4, 306.4, 1.5);
(560015.2, 4197772.0, 19.4, 306.4, 1.5);
(560065.2, 4197772.0, 20.2, 306.4, 1.5);
(560115.2, 4197772.0, 20.7, 306.4, 1.5);
(560165.2, 4197772.0, 21.4, 306.4, 1.5);
(560215.2, 4197772.0, 26.3, 306.4, 1.5);
(560265.2, 4197772.0, 31.2, 306.4, 1.5);
(559565.2, 4197822.0, 16.2, 306.4, 1.5);
(559615.2, 4197822.0, 20.9, 306.4, 1.5);
(559665.2, 4197822.0, 20.8, 306.4, 1.5);
(559715.2, 4197822.0, 17.5, 306.4, 1.5);
(559765.2, 4197822.0, 16.5, 306.4, 1.5);
(559815.2, 4197822.0, 17.2, 306.4, 1.5);
(559865.2, 4197822.0, 17.6, 306.4, 1.5);
(559915.2, 4197822.0, 17.7, 306.4, 1.5);
(559965.2, 4197822.0, 18.4, 306.4, 1.5);
(560015.2, 4197822.0, 20.2, 306.4, 1.5);

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( 560065.2, 4197822.0,      20.5,     306.4,       1.5);
     ( 560115.2, 4197822.0,      21.3,     306.4,       1.5);
( 560165.2, 4197822.0,      22.7,     306.4,       1.5);
     ( 560215.2, 4197822.0,      28.0,     306.4,       1.5);
( 560265.2, 4197822.0,      34.7,     306.4,       1.5);
     ( 560000.6, 4197301.1,      14.4,     306.4,       1.5);
( 560010.6, 4197301.1,      14.6,     306.4,       1.5);
     ( 560020.6, 4197301.1,      14.9,     306.4,       1.5);
( 560030.6, 4197301.1,      15.1,     306.4,       1.5);
     ( 560040.6, 4197301.1,      15.2,     306.4,       1.5);
( 560050.6, 4197301.1,      15.2,     306.4,       1.5);
     ( 560060.6, 4197301.1,      15.2,     306.4,       1.5);
( 560070.6, 4197301.1,      15.1,     306.4,       1.5);
     ( 560080.6, 4197301.1,      15.1,     306.4,       1.5);
( 560090.6, 4197301.1,      15.3,     306.4,       1.5);
     ( 560100.6, 4197301.1,      15.4,     306.4,       1.5);
( 560000.6, 4197311.1,      14.4,     306.4,       1.5);
     ( 560010.6, 4197311.1,      14.5,     306.4,       1.5);
( 560020.6, 4197311.1,      14.7,     306.4,       1.5);
     ( 560030.6, 4197311.1,      14.8,     306.4,       1.5);
( 560040.6, 4197311.1,      15.0,     306.4,       1.5);
     ( 560050.6, 4197311.1,      15.1,     306.4,       1.5);
( 560060.6, 4197311.1,      15.1,     306.4,       1.5);
     ( 560070.6, 4197311.1,      15.2,     306.4,       1.5);
( 560080.6, 4197311.1,      15.2,     306.4,       1.5);
     ( 560090.6, 4197311.1,      15.3,     306.4,       1.5);
( 560100.6, 4197311.1,      15.4,     306.4,       1.5);
     ( 560000.6, 4197321.1,      14.4,     306.4,       1.5);
( 560010.6, 4197321.1,      14.5,     306.4,       1.5);
     ( 560020.6, 4197321.1,      14.7,     306.4,       1.5);
( 560030.6, 4197321.1,      14.8,     306.4,       1.5);
     ( 560040.6, 4197321.1,      14.9,     306.4,       1.5);
( 560050.6, 4197321.1,      15.0,     306.4,       1.5);
     ( 560060.6, 4197321.1,      15.2,     306.4,       1.5);
( 560070.6, 4197321.1,      15.4,     306.4,       1.5);
     ( 560080.6, 4197321.1,      15.4,     306.4,       1.5);
( 560090.6, 4197321.1,      15.5,     306.4,       1.5);
     ( 560100.6, 4197321.1,      15.5,     306.4,       1.5);
( 560000.6, 4197331.1,      14.5,     306.4,       1.5);
     ( 560010.6, 4197331.1,      14.6,     306.4,       1.5);
( 560020.6, 4197331.1,      14.8,     306.4,       1.5);
     ( 560030.6, 4197331.1,      14.9,     306.4,       1.5);
( 560040.6, 4197331.1,      14.9,     306.4,       1.5);
     ( 560050.6, 4197331.1,      15.1,     306.4,       1.5);
( 560060.6, 4197331.1,      15.4,     306.4,       1.5);
     ( 560070.6, 4197331.1,      15.7,     306.4,       1.5);
( 560080.6, 4197331.1,      15.8,     306.4,       1.5);
     ( 560090.6, 4197331.1,      15.8,     306.4,       1.5);
( 560100.6, 4197331.1,      15.8,     306.4,       1.5);
     ( 560000.6, 4197341.1,      14.5,     306.4,       1.5);
( 560010.6, 4197341.1,      14.7,     306.4,       1.5);
     ( 560020.6, 4197341.1,      14.9,     306.4,       1.5);
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( 560030.6, 4197341.1,      14.9,     306.4,       1.5);
     ( 560040.6, 4197341.1,      15.1,     306.4,       1.5);
( 560050.6, 4197341.1,      15.3,     306.4,       1.5);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(560060.6, 4197341.1, 15.6, 306.4, 1.5);
(560070.6, 4197341.1, 15.9, 306.4, 1.5);
(560080.6, 4197341.1, 16.1, 306.4, 1.5);
(560090.6, 4197341.1, 16.2, 306.4, 1.5);
(560100.6, 4197341.1, 16.3, 306.4, 1.5);
(560000.6, 4197351.1, 14.6, 306.4, 1.5);
(560010.6, 4197351.1, 14.7, 306.4, 1.5);
(560020.6, 4197351.1, 15.0, 306.4, 1.5);
(560030.6, 4197351.1, 15.2, 306.4, 1.5);
(560040.6, 4197351.1, 15.2, 306.4, 1.5);
(560050.6, 4197351.1, 15.5, 306.4, 1.5);
(560060.6, 4197351.1, 15.8, 306.4, 1.5);
(560070.6, 4197351.1, 16.0, 306.4, 1.5);
(560080.6, 4197351.1, 16.2, 306.4, 1.5);
(560090.6, 4197351.1, 16.5, 306.4, 1.5);
(560100.6, 4197351.1, 16.7, 306.4, 1.5);
(560000.6, 4197361.1, 14.7, 306.4, 1.5);
(560010.6, 4197361.1, 14.9, 306.4, 1.5);
(560020.6, 4197361.1, 15.2, 306.4, 1.5);
(560030.6, 4197361.1, 15.3, 306.4, 1.5);
(560040.6, 4197361.1, 15.4, 306.4, 1.5);
(560050.6, 4197361.1, 15.7, 306.4, 1.5);
(560060.6, 4197361.1, 16.0, 306.4, 1.5);
(560070.6, 4197361.1, 16.2, 306.4, 1.5);
(560080.6, 4197361.1, 16.4, 306.4, 1.5);
(560090.6, 4197361.1, 16.6, 306.4, 1.5);
(560100.6, 4197361.1, 16.7, 306.4, 1.5);
(560000.6, 4197371.1, 14.8, 306.4, 1.5);
(560010.6, 4197371.1, 15.0, 306.4, 1.5);
(560020.6, 4197371.1, 15.2, 306.4, 1.5);
(560030.6, 4197371.1, 15.4, 306.4, 1.5);
(560040.6, 4197371.1, 15.6, 306.4, 1.5);
(560050.6, 4197371.1, 15.8, 306.4, 1.5);
(560060.6, 4197371.1, 16.1, 306.4, 1.5);
(560070.6, 4197371.1, 16.4, 306.4, 1.5);

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( 560080.6, 4197371.1,      16.6,     306.4,       1.5);
     ( 560090.6, 4197371.1,      16.7,     306.4,       1.5);
( 560100.6, 4197371.1,      16.8,     306.4,       1.5);
     ( 560000.6, 4197381.1,      14.8,     306.4,       1.5);
( 560010.6, 4197381.1,      15.0,     306.4,       1.5);
     ( 560020.6, 4197381.1,      15.3,     306.4,       1.5);
( 560030.6, 4197381.1,      15.5,     306.4,       1.5);
     ( 560040.6, 4197381.1,      15.7,     306.4,       1.5);
( 560050.6, 4197381.1,      15.9,     306.4,       1.5);
     ( 560060.6, 4197381.1,      16.2,     306.4,       1.5);
( 560070.6, 4197381.1,      16.5,     306.4,       1.5);
     ( 560080.6, 4197381.1,      16.7,     306.4,       1.5);
( 560090.6, 4197381.1,      16.8,     306.4,       1.5);
     ( 560100.6, 4197381.1,      16.8,     306.4,       1.5);
( 560000.6, 4197391.1,      14.8,     306.4,       1.5);
     ( 560010.6, 4197391.1,      15.1,     306.4,       1.5);
( 560020.6, 4197391.1,      15.3,     306.4,       1.5);
     ( 560030.6, 4197391.1,      15.5,     306.4,       1.5);
( 560040.6, 4197391.1,      15.7,     306.4,       1.5);
     ( 560050.6, 4197391.1,      15.9,     306.4,       1.5);
( 560060.6, 4197391.1,      16.2,     306.4,       1.5);
     ( 560070.6, 4197391.1,      16.5,     306.4,       1.5);
( 560080.6, 4197391.1,      16.7,     306.4,       1.5);
     ( 560090.6, 4197391.1,      16.8,     306.4,       1.5);
( 560100.6, 4197391.1,      16.9,     306.4,       1.5);
     ( 560000.6, 4197401.1,      15.0,     306.4,       1.5);
( 560010.6, 4197401.1,      15.2,     306.4,       1.5);
     ( 560020.6, 4197401.1,      15.4,     306.4,       1.5);
( 560030.6, 4197401.1,      15.6,     306.4,       1.5);
     ( 560040.6, 4197401.1,      15.7,     306.4,       1.5);
( 560050.6, 4197401.1,      15.9,     306.4,       1.5);
     ( 560060.6, 4197401.1,      16.1,     306.4,       1.5);
( 560070.6, 4197401.1,      16.4,     306.4,       1.5);
     ( 560080.6, 4197401.1,      16.7,     306.4,       1.5);
( 560090.6, 4197401.1,      16.9,     306.4,       1.5);
     ( 560100.6, 4197401.1,      16.9,     306.4,       1.5);
( 560000.6, 4197411.1,      15.1,     306.4,       1.5);
     ( 560010.6, 4197411.1,      15.4,     306.4,       1.5);
( 560020.6, 4197411.1,      15.5,     306.4,       1.5);
     ( 560030.6, 4197411.1,      15.6,     306.4,       1.5);
( 560040.6, 4197411.1,      15.8,     306.4,       1.5);
     ( 560050.6, 4197411.1,      16.0,     306.4,       1.5);
( 560060.6, 4197411.1,      16.2,     306.4,       1.5);
     ( 560070.6, 4197411.1,      16.6,     306.4,       1.5);
( 560080.6, 4197411.1,      16.8,     306.4,       1.5);
     ( 560090.6, 4197411.1,      16.9,     306.4,       1.5);
( 560100.6, 4197411.1,      16.8,     306.4,       1.5);
     ( 560000.6, 4197421.1,      15.2,     306.4,       1.5);
( 560010.6, 4197421.1,      15.5,     306.4,       1.5);
     ( 560020.6, 4197421.1,      15.6,     306.4,       1.5);
( 560030.6, 4197421.1,      15.7,     306.4,       1.5);
     ( 560040.6, 4197421.1,      15.9,     306.4,       1.5);
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( 560050.6, 4197421.1,      16.1,     306.4,       1.5);
     ( 560060.6, 4197421.1,      16.5,     306.4,       1.5);
( 560070.6, 4197421.1,      16.7,     306.4,       1.5);
```

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(560080.6, 4197421.1, 16.9, 306.4, 1.5);
(560090.6, 4197421.1, 16.9, 306.4, 1.5);
(560100.6, 4197421.1, 16.8, 306.4, 1.5);
(560000.6, 4197431.1, 15.2, 306.4, 1.5);
(560010.6, 4197431.1, 15.4, 306.4, 1.5);
(560020.6, 4197431.1, 15.6, 306.4, 1.5);
(560030.6, 4197431.1, 15.7, 306.4, 1.5);
(560040.6, 4197431.1, 15.9, 306.4, 1.5);
(560050.6, 4197431.1, 16.3, 306.4, 1.5);
(560060.6, 4197431.1, 16.6, 306.4, 1.5);
(560070.6, 4197431.1, 16.8, 306.4, 1.5);
(560080.6, 4197431.1, 16.9, 306.4, 1.5);
(560090.6, 4197431.1, 16.8, 306.4, 1.5);
(560100.6, 4197431.1, 17.0, 306.4, 1.5);
(560000.6, 4197441.1, 15.3, 306.4, 1.5);
(560010.6, 4197441.1, 15.4, 306.4, 1.5);
(560020.6, 4197441.1, 15.6, 306.4, 1.5);
(560030.6, 4197441.1, 15.7, 306.4, 1.5);
(560040.6, 4197441.1, 16.0, 306.4, 1.5);
(560050.6, 4197441.1, 16.4, 306.4, 1.5);
(560060.6, 4197441.1, 16.7, 306.4, 1.5);
(560070.6, 4197441.1, 16.9, 306.4, 1.5);
(560080.6, 4197441.1, 16.9, 306.4, 1.5);
(560090.6, 4197441.1, 16.8, 306.4, 1.5);
(560100.6, 4197441.1, 17.4, 306.4, 1.5);
(560000.6, 4197451.1, 15.4, 306.4, 1.5);
(560010.6, 4197451.1, 15.6, 306.4, 1.5);
(560020.6, 4197451.1, 15.8, 306.4, 1.5);
(560030.6, 4197451.1, 15.9, 306.4, 1.5);
(560040.6, 4197451.1, 16.2, 306.4, 1.5);
(560050.6, 4197451.1, 16.6, 306.4, 1.5);
(560060.6, 4197451.1, 16.8, 306.4, 1.5);
(560070.6, 4197451.1, 16.9, 306.4, 1.5);
(560080.6, 4197451.1, 16.8, 306.4, 1.5);
(560090.6, 4197451.1, 16.9, 306.4, 1.5);

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( 560100.6, 4197451.1,      17.4,     306.4,       1.5);
     ( 560000.6, 4197461.1,      15.5,     306.4,       1.5);
( 560010.6, 4197461.1,      15.9,     306.4,       1.5);
     ( 560020.6, 4197461.1,      16.2,     306.4,       1.5);
( 560030.6, 4197461.1,      16.3,     306.4,       1.5);
     ( 560040.6, 4197461.1,      16.5,     306.4,       1.5);
( 560050.6, 4197461.1,      16.7,     306.4,       1.5);
     ( 560060.6, 4197461.1,      16.9,     306.4,       1.5);
( 560070.6, 4197461.1,      16.8,     306.4,       1.5);
     ( 560080.6, 4197461.1,      16.8,     306.4,       1.5);
( 560090.6, 4197461.1,      17.0,     306.4,       1.5);
     ( 560100.6, 4197461.1,      17.3,     306.4,       1.5);
( 560000.6, 4197471.1,      15.7,     306.4,       1.5);
     ( 560010.6, 4197471.1,      16.2,     306.4,       1.5);
( 560020.6, 4197471.1,      16.5,     306.4,       1.5);
     ( 560030.6, 4197471.1,      16.6,     306.4,       1.5);
( 560040.6, 4197471.1,      16.7,     306.4,       1.5);
     ( 560050.6, 4197471.1,      16.8,     306.4,       1.5);
( 560060.6, 4197471.1,      16.9,     306.4,       1.5);
     ( 560070.6, 4197471.1,      16.7,     306.4,       1.5);
( 560080.6, 4197471.1,      16.9,     306.4,       1.5);
     ( 560090.6, 4197471.1,      17.2,     306.4,       1.5);
( 560100.6, 4197471.1,      17.3,     306.4,       1.5);
     ( 560000.6, 4197481.1,      15.8,     306.4,       1.5);
( 560010.6, 4197481.1,      16.4,     306.4,       1.5);
     ( 560020.6, 4197481.1,      16.7,     306.4,       1.5);
( 560030.6, 4197481.1,      16.7,     306.4,       1.5);
     ( 560040.6, 4197481.1,      16.7,     306.4,       1.5);
( 560050.6, 4197481.1,      16.9,     306.4,       1.5);
     ( 560060.6, 4197481.1,      16.8,     306.4,       1.5);
( 560070.6, 4197481.1,      16.9,     306.4,       1.5);
     ( 560080.6, 4197481.1,      17.2,     306.4,       1.5);
( 560090.6, 4197481.1,      17.4,     306.4,       1.5);
     ( 560100.6, 4197481.1,      17.3,     306.4,       1.5);
( 560000.6, 4197491.1,      16.0,     306.4,       1.5);
     ( 560010.6, 4197491.1,      16.6,     306.4,       1.5);
( 560020.6, 4197491.1,      16.7,     306.4,       1.5);
     ( 560030.6, 4197491.1,      16.7,     306.4,       1.5);
( 560040.6, 4197491.1,      16.8,     306.4,       1.5);
     ( 560050.6, 4197491.1,      16.8,     306.4,       1.5);
( 560060.6, 4197491.1,      16.8,     306.4,       1.5);
     ( 560070.6, 4197491.1,      17.2,     306.4,       1.5);
( 560080.6, 4197491.1,      17.5,     306.4,       1.5);
     ( 560090.6, 4197491.1,      17.6,     306.4,       1.5);
( 560100.6, 4197491.1,      17.4,     306.4,       1.5);
     ( 560000.6, 4197501.1,      16.1,     306.4,       1.5);
( 560010.6, 4197501.1,      16.5,     306.4,       1.5);
     ( 560020.6, 4197501.1,      16.6,     306.4,       1.5);
( 560030.6, 4197501.1,      16.7,     306.4,       1.5);
     ( 560040.6, 4197501.1,      16.8,     306.4,       1.5);
( 560050.6, 4197501.1,      16.7,     306.4,       1.5);
     ( 560060.6, 4197501.1,      16.9,     306.4,       1.5);
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( 560070.6, 4197501.1,      17.4,     306.4,       1.5);
     ( 560080.6, 4197501.1,      17.7,     306.4,       1.5);
( 560090.6, 4197501.1,      17.7,     306.4,       1.5);
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(560100.6, 4197501.1, 17.6, 306.4, 1.5);
(559954.7, 4197549.5, 15.7, 306.4, 1.5);
(559973.4, 4197549.2, 16.3, 306.4, 1.5);
(559980.3, 4197544.3, 16.4, 306.4, 1.5);
(559978.2, 4197528.1, 16.2, 306.4, 1.5);
(559969.7, 4197512.8, 16.0, 306.4, 1.5);
(559971.1, 4197308.0, 15.6, 306.4, 1.5);
(559970.2, 4197308.4, 15.8, 306.4, 1.5);
(559912.4, 4197415.0, 15.3, 306.4, 1.5);
(559912.3, 4197415.4, 15.3, 306.4, 1.5);
(559959.4, 4197429.5, 15.1, 306.4, 1.5);
(559960.2, 4197441.8, 15.2, 306.4, 1.5);
(559926.0, 4197543.5, 15.4, 306.4, 1.5);

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING *** (1 =YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: Z:\Shared\San Jose\Env\16240_El Cerrito Eastshore Blvd Apt AQ Constrn HRA & NOI Met Version: 18081
Profile file: Z:\Shared\San Jose\Env\16240_El Cerrito Eastshore Blvd Apt AQ Constrn HRA & NOI
Surface format: FREE
Profile format: FREE
Surface station no.: 23230 Upper air station no.: 23230
Name: OAKLAND/WSO_AP Name: OAKLAND/WSO_AP
Year: 2013 Year: 2013

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
13	01	01	1	01	-6.3	0.084	-9.000	-9.000	-999.	58.	8.4	0.17	0.63	1.00	1.70	173.	10.0	279.9	8.8
13	01	01	1	02	-9.2	0.134	-9.000	-9.000	-999.	117.	23.7	0.15	0.63	1.00	2.10	93.	10.0	278.4	8.8
13	01	01	1	03	-6.5	0.086	-9.000	-9.000	-999.	61.	9.0	0.15	0.63	1.00	1.80	63.	10.0	278.4	8.8
13	01	01	1	04	-11.3	0.164	-9.000	-9.000	-999.	160.	35.8	0.19	0.63	1.00	2.20	25.	10.0	278.5	8.8
13	01	01	1	05	-15.9	0.232	-9.000	-9.000	-999.	268.	71.3	0.19	0.63	1.00	2.70	43.	10.0	278.8	8.8
13	01	01	1	06	-25.3	0.368	-9.000	-9.000	-999.	537.	180.2	0.15	0.63	1.00	4.10	72.	10.0	278.9	8.8
13	01	01	1	07	-24.5	0.242	-9.000	-9.000	-999.	296.	52.9	0.15	0.63	1.00	3.10	64.	10.0	278.5	8.8
13	01	01	1	08	-28.7	0.284	-9.000	-9.000	-999.	363.	72.7	0.19	0.63	1.00	3.30	56.	10.0	278.1	8.8
13	01	01	1	09	1.9	0.246	0.106	0.005	23.	293.	-724.2	0.19	0.63	0.38	2.40	49.	10.0	278.5	8.8
13	01	01	1	10	39.2	0.414	0.490	0.007	109.	639.	-164.7	0.19	0.63	0.25	3.90	42.	10.0	279.9	8.8
13	01	01	1	11	68.1	0.405	0.767	0.007	241.	619.	-88.9								

```
0.19   0.63   0.20    3.70   26.   10.0  280.8    8.8
 13 01 01   1 12   84.6  0.456  1.112  0.008  592.  738.   -102.1
0.19   0.63   0.19    4.20   26.   10.0  281.6    8.8
 13 01 01   1 13   87.7  0.532  1.277  0.007  865.  929.   -156.0
0.19   0.63   0.18    5.00   50.   10.0  282.8    8.8
 13 01 01   1 14   77.3  0.596  1.242  0.005  903. 1103.   -249.4
0.19   0.63   0.19    5.70   58.   10.0  283.8    8.8
 13 01 01   1 15   53.8  0.729  1.108  0.005  920. 1489.   -653.8
0.15   0.63   0.22    7.50   62.   10.0  284.4    8.8
 13 01 01   1 16   19.4  0.459  0.790  0.007  925.  827.   -454.5
0.15   0.63   0.31    4.70   72.   10.0  284.4    8.8
 13 01 01   1 17  -32.5  0.383 -9.000 -9.000 -999.  578.    157.6
0.15   0.63   0.54    4.30   78.   10.0  283.9    8.8
 13 01 01   1 18  -22.8  0.210 -9.000 -9.000 -999.  256.     36.9
0.15   0.63   1.00    2.90   99.   10.0  282.6    8.8
 13 01 01   1 19  -12.8  0.118 -9.000 -9.000 -999.  103.     11.7
0.17   0.63   1.00    2.40  124.   10.0  281.8    8.8
 13 01 01   1 20   -1.7  0.043 -9.000 -9.000 -999.   25.      4.2
0.15   0.63   1.00    0.90  336.   10.0  281.1    8.8
 13 01 01   1 21   -2.6  0.053 -9.000 -9.000 -999.   29.      5.2
0.15   0.63   1.00    1.10  304.   10.0  281.2    8.8
 13 01 01   1 22   -5.5  0.077 -9.000 -9.000 -999.   51.      7.5
0.15   0.63   1.00    1.60   94.   10.0  280.6    8.8
 13 01 01   1 23   -3.4  0.061 -9.000 -9.000 -999.   36.      6.1
0.19   0.63   1.00    1.20   19.   10.0  279.0    8.8
 13 01 01   1 24   -6.7  0.086 -9.000 -9.000 -999.   60.      8.6
0.19   0.63   1.00    1.70   30.   10.0  278.2    8.8


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW
sigmaV
 13 01 01 01    8.8 0 -999.  -99.00   280.0
999.0  -99.00  -99.00
 13 01 01 01   10.0 1  173.    1.70  -999.0   25.2  -99.00
0.68

 F indicates top of profile (=1) or below (=0)
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.00271	559615.17	4197121.97	0.00309
559665.17	4197121.97	0.00355	559715.17	4197121.97	0.00410
559765.17	4197121.97	0.00476	559815.17	4197121.97	0.00552
559865.17	4197121.97	0.00624	559915.17	4197121.97	0.00671
559965.17	4197121.97	0.00648	560015.17	4197121.97	0.00574
560065.17	4197121.97	0.00460	560115.17	4197121.97	0.00350
560165.17	4197121.97	0.00268	560215.17	4197121.97	0.00212
560265.17	4197121.97	0.00176	559565.17	4197171.97	0.00303
559615.17	4197171.97	0.00350	559665.17	4197171.97	0.00410
559715.17	4197171.97	0.00484	559765.17	4197171.97	0.00579
559815.17	4197171.97	0.00697	559865.17	4197171.97	0.00826
559915.17	4197171.97	0.00932	559965.17	4197171.97	0.00873

```
         560015.17    4197171.97        0.00778
560065.17    4197171.97        0.00572
         560115.17    4197171.97        0.00411
560165.17    4197171.97        0.00310
         560215.17    4197171.97        0.00246
560265.17    4197171.97        0.00204
         559565.17    4197221.97        0.00332
559615.17    4197221.97        0.00392
         559665.17    4197221.97        0.00469
559715.17    4197221.97        0.00570
         559765.17    4197221.97        0.00707
559815.17    4197221.97        0.00895
         559865.17    4197221.97        0.01139
559915.17    4197221.97        0.01400
         559965.17    4197221.97        0.01497
560015.17    4197221.97        0.01145
         560065.17    4197221.97        0.00728
560115.17    4197221.97        0.00500
         560165.17    4197221.97        0.00372
560215.17    4197221.97        0.00292
         560265.17    4197221.97        0.00238
559565.17    4197271.97        0.00355
         559615.17    4197271.97        0.00427
559665.17    4197271.97        0.00524
         559715.17    4197271.97        0.00659
559765.17    4197271.97        0.00854
         559815.17    4197271.97        0.01150
559865.17    4197271.97        0.01611
         559915.17    4197271.97        0.02295
559965.17    4197271.97        0.03260
         560015.17    4197271.97        0.01792
560065.17    4197271.97        0.00956
         560115.17    4197271.97        0.00622
560165.17    4197271.97        0.00447
         560215.17    4197271.97        0.00342
560265.17    4197271.97        0.00274
         559565.17    4197321.97        0.00368
559615.17    4197321.97        0.00451
         559665.17    4197321.97        0.00563
559715.17    4197321.97        0.00728
         559765.17    4197321.97        0.00988
559815.17    4197321.97        0.01425
         559865.17    4197321.97        0.02257
559915.17    4197321.97        0.03788
         560015.17    4197321.97        0.02568
560065.17    4197321.97        0.01229
         560115.17    4197321.97        0.00752
560165.17    4197321.97        0.00519
         560215.17    4197321.97        0.00386
560265.17    4197321.97        0.00302
         559565.17    4197371.97        0.00368
559615.17    4197371.97        0.00455
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         559665.17    4197371.97        0.00578
559715.17    4197371.97        0.00763
         559765.17    4197371.97        0.01064
559815.17    4197371.97        0.01618
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.02885	559915.17	4197371.97	0.05607
560015.17	4197371.97	0.03077	560065.17	4197371.97	0.01420
560115.17	4197371.97	0.00838	560165.17	4197371.97	0.00566
560215.17	4197371.97	0.00416	560265.17	4197371.97	0.00317
559565.17	4197421.97	0.00359	559615.17	4197421.97	0.00446
559665.17	4197421.97	0.00569	559715.17	4197421.97	0.00759
559765.17	4197421.97	0.01070	559815.17	4197421.97	0.01650
559865.17	4197421.97	0.02930	559915.17	4197421.97	0.07287
560015.17	4197421.97	0.03242	560065.17	4197421.97	0.01526
560115.17	4197421.97	0.00894	560165.17	4197421.97	0.00600
560215.17	4197421.97	0.00437	560265.17	4197421.97	0.00323
559565.17	4197471.97	0.00341	559615.17	4197471.97	0.00425

```
         559665.17    4197471.97        0.00547
559715.17    4197471.97        0.00738
         559765.17    4197471.97        0.01062
559815.17    4197471.97        0.01692
         559865.17    4197471.97        0.03100
559915.17    4197471.97        0.06915
         560015.17    4197471.97        0.03390
560065.17    4197471.97        0.01625
         560115.17    4197471.97        0.00949
560165.17    4197471.97        0.00628
         560215.17    4197471.97        0.00428
560265.17    4197471.97        0.00323
         559565.17    4197521.97        0.00322
559615.17    4197521.97        0.00401
         559665.17    4197521.97        0.00519
559715.17    4197521.97        0.00704
         559765.17    4197521.97        0.01024
559815.17    4197521.97        0.01606
         559865.17    4197521.97        0.02978
559915.17    4197521.97        0.06856
         560015.17    4197521.97        0.03461
560065.17    4197521.97        0.01623
         560115.17    4197521.97        0.00948
560165.17    4197521.97        0.00621
         560215.17    4197521.97        0.00423
560265.17    4197521.97        0.00314
         559565.17    4197571.97        0.00304
559615.17    4197571.97        0.00380
         559665.17    4197571.97        0.00493
559715.17    4197571.97        0.00669
         559765.17    4197571.97        0.00949
559815.17    4197571.97        0.01458
         559865.17    4197571.97        0.02485
559915.17    4197571.97        0.05296
         559965.17    4197571.97        0.08191
560015.17    4197571.97        0.03227
         560065.17    4197571.97        0.01522
560115.17    4197571.97        0.00908
         560165.17    4197571.97        0.00585
560215.17    4197571.97        0.00407
         560265.17    4197571.97        0.00304
559565.17    4197621.97        0.00289
         559615.17    4197621.97        0.00363
559665.17    4197621.97        0.00473
         559715.17    4197621.97        0.00641
559765.17    4197621.97        0.00826
         559815.17    4197621.97        0.01366
559865.17    4197621.97        0.02200
         559915.17    4197621.97        0.03756
559965.17    4197621.97        0.05209
         560015.17    4197621.97        0.02752
560065.17    4197621.97        0.01379
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         560115.17    4197621.97        0.00815
560165.17    4197621.97        0.00576
         560215.17    4197621.97        0.00390
560265.17    4197621.97        0.00293
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00278	559615.17	4197671.97	0.00350
559665.17	4197671.97	0.00455	559715.17	4197671.97	0.00543
559765.17	4197671.97	0.00774	559815.17	4197671.97	0.01267
559865.17	4197671.97	0.01977	559915.17	4197671.97	0.03398
559965.17	4197671.97	0.03548	560015.17	4197671.97	0.02009
560065.17	4197671.97	0.01113	560115.17	4197671.97	0.00713
560165.17	4197671.97	0.00508	560215.17	4197671.97	0.00376
560265.17	4197671.97	0.00278	559565.17	4197721.97	0.00269
559615.17	4197721.97	0.00338	559665.17	4197721.97	0.00432
559715.17	4197721.97	0.00521	559765.17	4197721.97	0.00784
559815.17	4197721.97	0.01123	559865.17	4197721.97	0.01838
559915.17	4197721.97	0.03287	559965.17	4197721.97	0.02235

```
         560015.17    4197721.97        0.01423
560065.17    4197721.97        0.00938
         560115.17    4197721.97        0.00631
560165.17    4197721.97        0.00452
         560215.17    4197721.97        0.00335
560265.17    4197721.97        0.00237
         559565.17    4197771.97        0.00261
559615.17    4197771.97        0.00326
         559665.17    4197771.97        0.00413
559715.17    4197771.97        0.00531
         559765.17    4197771.97        0.00696
559815.17    4197771.97        0.00942
         559865.17    4197771.97        0.01491
559915.17    4197771.97        0.02186
         559965.17    4197771.97        0.01479
560015.17    4197771.97        0.01082
         560065.17    4197771.97        0.00778
560115.17    4197771.97        0.00544
         560165.17    4197771.97        0.00400
560215.17    4197771.97        0.00271
         560265.17    4197771.97        0.00189
559565.17    4197821.97        0.00255
         559615.17    4197821.97        0.00295
559665.17    4197821.97        0.00370
         559715.17    4197821.97        0.00487
559765.17    4197821.97        0.00617
         559815.17    4197821.97        0.00797
559865.17    4197821.97        0.01077
         559915.17    4197821.97        0.01234
559965.17    4197821.97        0.01049
         560015.17    4197821.97        0.00833
560065.17    4197821.97        0.00642
         560115.17    4197821.97        0.00479
560165.17    4197821.97        0.00354
         560215.17    4197821.97        0.00239
560265.17    4197821.97        0.00160
         560000.59    4197301.08        0.02982
560010.59    4197301.08        0.02442
         560020.59    4197301.08        0.02029
560030.59    4197301.08        0.01725
         560040.59    4197301.08        0.01496
560050.59    4197301.08        0.01316
         560060.59    4197301.08        0.01172
560070.59    4197301.08        0.01053
         560080.59    4197301.08        0.00953
560090.59    4197301.08        0.00867
         560100.59    4197301.08        0.00793
560000.59    4197311.08        0.03232
         560010.59    4197311.08        0.02627
560020.59    4197311.08        0.02173
         560030.59    4197311.08        0.01839
560040.59    4197311.08        0.01588
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         560050.59    4197311.08        0.01391
560060.59    4197311.08        0.01233
         560070.59    4197311.08        0.01104
560080.59    4197311.08        0.00995
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.00903	560100.59	4197311.08	0.00825
560000.59	4197321.08	0.03449	560010.59	4197321.08	0.02798
560020.59	4197321.08	0.02309	560030.59	4197321.08	0.01948
560040.59	4197321.08	0.01676	560050.59	4197321.08	0.01463
560060.59	4197321.08	0.01292	560070.59	4197321.08	0.01151
560080.59	4197321.08	0.01035	560090.59	4197321.08	0.00938
560100.59	4197321.08	0.00854	560000.59	4197331.08	0.03625
560010.59	4197331.08	0.02948	560020.59	4197331.08	0.02431
560030.59	4197331.08	0.02048	560040.59	4197331.08	0.01758
560050.59	4197331.08	0.01529	560060.59	4197331.08	0.01345
560070.59	4197331.08	0.01195	560080.59	4197331.08	0.01071
560090.59	4197331.08	0.00968	560100.59	4197331.08	0.00880

560000.59 4197341.08 0.03766
560010.59 4197341.08 0.03075
560020.59 4197341.08 0.02537
560030.59 4197341.08 0.02137
560040.59 4197341.08 0.01829
560050.59 4197341.08 0.01587
560060.59 4197341.08 0.01393
560070.59 4197341.08 0.01234
560080.59 4197341.08 0.01103
560090.59 4197341.08 0.00994
560100.59 4197341.08 0.00902
560000.59 4197351.08 0.03889
560010.59 4197351.08 0.03178
560020.59 4197351.08 0.02626
560030.59 4197351.08 0.02210
560040.59 4197351.08 0.01892
560050.59 4197351.08 0.01639
560060.59 4197351.08 0.01435
560070.59 4197351.08 0.01270
560080.59 4197351.08 0.01133
560090.59 4197351.08 0.01018
560100.59 4197351.08 0.00922
560000.59 4197361.08 0.04022
560010.59 4197361.08 0.03272
560020.59 4197361.08 0.02705
560030.59 4197361.08 0.02277
560040.59 4197361.08 0.01948
560050.59 4197361.08 0.01684
560060.59 4197361.08 0.01472
560070.59 4197361.08 0.01300
560080.59 4197361.08 0.01159
560090.59 4197361.08 0.01041
560100.59 4197361.08 0.00941
560000.59 4197371.08 0.04121
560010.59 4197371.08 0.03357
560020.59 4197371.08 0.02777
560030.59 4197371.08 0.02336
560040.59 4197371.08 0.01995
560050.59 4197371.08 0.01724
560060.59 4197371.08 0.01504
560070.59 4197371.08 0.01326
560080.59 4197371.08 0.01181
560090.59 4197371.08 0.01060
560100.59 4197371.08 0.00959
560000.59 4197381.08 0.04183
560010.59 4197381.08 0.03425
560020.59 4197381.08 0.02837
560030.59 4197381.08 0.02385
560040.59 4197381.08 0.02035
560050.59 4197381.08 0.01757
560060.59 4197381.08 0.01532
560070.59 4197381.08 0.01349

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         560080.59    4197381.08        0.01200
560090.59    4197381.08        0.01077
         560100.59    4197381.08        0.00974
560000.59    4197391.08        0.04219
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.03469	560020.59	4197391.08	0.02881
560030.59	4197391.08	0.02426	560040.59	4197391.08	0.02070
560050.59	4197391.08	0.01786	560060.59	4197391.08	0.01558
560070.59	4197391.08	0.01372	560080.59	4197391.08	0.01219
560090.59	4197391.08	0.01094	560100.59	4197391.08	0.00988
560000.59	4197401.08	0.04235	560010.59	4197401.08	0.03492
560020.59	4197401.08	0.02909	560030.59	4197401.08	0.02455
560040.59	4197401.08	0.02097	560050.59	4197401.08	0.01811
560060.59	4197401.08	0.01581	560070.59	4197401.08	0.01393
560080.59	4197401.08	0.01237	560090.59	4197401.08	0.01109
560100.59	4197401.08	0.01002	560000.59	4197411.08	0.04241
560010.59	4197411.08	0.03503	560020.59	4197411.08	0.02929

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         560030.59    4197411.08        0.02477
560040.59    4197411.08        0.02119
         560050.59    4197411.08        0.01832
560060.59    4197411.08        0.01600
         560070.59    4197411.08        0.01409
560080.59    4197411.08        0.01253
         560090.59    4197411.08        0.01124
560100.59    4197411.08        0.01018
         560000.59    4197421.08        0.04251
560010.59    4197421.08        0.03519
         560020.59    4197421.08        0.02948
560030.59    4197421.08        0.02499
         560040.59    4197421.08        0.02140
560050.59    4197421.08        0.01852
         560060.59    4197421.08        0.01616
560070.59    4197421.08        0.01425
         560080.59    4197421.08        0.01269
560090.59    4197421.08        0.01140
         560100.59    4197421.08        0.01032
560000.59    4197431.08        0.04278
         560010.59    4197431.08        0.03550
560020.59    4197431.08        0.02976
         560030.59    4197431.08        0.02526
560040.59    4197431.08        0.02165
         560050.59    4197431.08        0.01873
560060.59    4197431.08        0.01635
         560070.59    4197431.08        0.01444
560080.59    4197431.08        0.01286
         560090.59    4197431.08        0.01157
560100.59    4197431.08        0.01043
         560000.59    4197441.08        0.04323
560010.59    4197441.08        0.03587
         560020.59    4197441.08        0.03010
560030.59    4197441.08        0.02557
         560040.59    4197441.08        0.02192
560050.59    4197441.08        0.01895
         560060.59    4197441.08        0.01657
560070.59    4197441.08        0.01463
         560080.59    4197441.08        0.01305
560090.59    4197441.08        0.01173
         560100.59    4197441.08        0.01053
560000.59    4197451.08        0.04373
         560010.59    4197451.08        0.03626
560020.59    4197451.08        0.03042
         560030.59    4197451.08        0.02585
560040.59    4197451.08        0.02217
         560050.59    4197451.08        0.01918
560060.59    4197451.08        0.01678
         560070.59    4197451.08        0.01483
560080.59    4197451.08        0.01325
         560090.59    4197451.08        0.01188
560100.59    4197451.08        0.01067
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         560000.59    4197461.08        0.04417
560010.59    4197461.08        0.03659
         560020.59    4197461.08        0.03066
560030.59    4197461.08        0.02605
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ALL ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 , A0000013 , A0000014 , A0000015 ,
A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.02236	560050.59	4197461.08	0.01939
560060.59	4197461.08	0.01698	560070.59	4197461.08	0.01504
560080.59	4197461.08	0.01342	560090.59	4197461.08	0.01201
560100.59	4197461.08	0.01081	560000.59	4197471.08	0.04452
560010.59	4197471.08	0.03684	560020.59	4197471.08	0.03083
560030.59	4197471.08	0.02623	560040.59	4197471.08	0.02257
560050.59	4197471.08	0.01959	560060.59	4197471.08	0.01717
560070.59	4197471.08	0.01522	560080.59	4197471.08	0.01353
560090.59	4197471.08	0.01211	560100.59	4197471.08	0.01092
560000.59	4197481.08	0.04480	560010.59	4197481.08	0.03703
560020.59	4197481.08	0.03102	560030.59	4197481.08	0.02643
560040.59	4197481.08	0.02275	560050.59	4197481.08	0.01974

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         560060.59    4197481.08        0.01734
560070.59    4197481.08        0.01533
         560080.59    4197481.08        0.01359
560090.59    4197481.08        0.01217
         560100.59    4197481.08        0.01099
560000.59    4197491.08        0.04502
         560010.59    4197491.08        0.03720
560020.59    4197491.08        0.03123
         560030.59    4197491.08        0.02662
560040.59    4197491.08        0.02288
         560050.59    4197491.08        0.01988
560060.59    4197491.08        0.01745
         560070.59    4197491.08        0.01534
560080.59    4197491.08        0.01360
         560090.59    4197491.08        0.01219
560100.59    4197491.08        0.01101
         560000.59    4197501.08        0.04523
560010.59    4197501.08        0.03744
         560020.59    4197501.08        0.03144
560030.59    4197501.08        0.02673
         560040.59    4197501.08        0.02295
560050.59    4197501.08        0.01996
         560060.59    4197501.08        0.01745
560070.59    4197501.08        0.01531
         560080.59    4197501.08        0.01359
560090.59    4197501.08        0.01218
         560100.59    4197501.08        0.01100
559954.71    4197549.49        0.09000
         559973.36    4197549.21        0.07777
559980.26    4197544.34        0.06751
         559978.21    4197528.15        0.06881
559969.70    4197512.85        0.08169
         559971.05    4197308.01        0.05413
559970.20    4197308.43        0.05535
         559912.41    4197414.97        0.06949
559912.33    4197415.37        0.06936
         559959.36    4197429.45        0.09071
559960.20    4197441.75        0.09355
         559926.03    4197543.45        0.07644
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.00216	559615.17	4197121.97	0.00246
559665.17	4197121.97	0.00283	559715.17	4197121.97	0.00327
559765.17	4197121.97	0.00382	559815.17	4197121.97	0.00442
559865.17	4197121.97	0.00497	559915.17	4197121.97	0.00525
559965.17	4197121.97	0.00500	560015.17	4197121.97	0.00438
560065.17	4197121.97	0.00353	560115.17	4197121.97	0.00270
560165.17	4197121.97	0.00207	560215.17	4197121.97	0.00163
560265.17	4197121.97	0.00135	559565.17	4197171.97	0.00243
559615.17	4197171.97	0.00281	559665.17	4197171.97	0.00330
559715.17	4197171.97	0.00389	559765.17	4197171.97	0.00467
559815.17	4197171.97	0.00561	559865.17	4197171.97	0.00659
559915.17	4197171.97	0.00725	559965.17	4197171.97	0.00659
560015.17	4197171.97	0.00579	560065.17	4197171.97	0.00435
560115.17	4197171.97	0.00315			

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560165.17    4197171.97        0.00237
         560215.17    4197171.97        0.00188
560265.17    4197171.97        0.00157
         559565.17    4197221.97        0.00267
559615.17    4197221.97        0.00317
         559665.17    4197221.97        0.00381
559715.17    4197221.97        0.00465
         559765.17    4197221.97        0.00577
559815.17    4197221.97        0.00730
         559865.17    4197221.97        0.00917
559915.17    4197221.97        0.01078
         559965.17    4197221.97        0.01044
560015.17    4197221.97        0.00804
         560065.17    4197221.97        0.00544
560115.17    4197221.97        0.00379
         560165.17    4197221.97        0.00283
560215.17    4197221.97        0.00225
         560265.17    4197221.97        0.00186
559565.17    4197271.97        0.00286
         559615.17    4197271.97        0.00347
559665.17    4197271.97        0.00430
         559715.17    4197271.97        0.00544
559765.17    4197271.97        0.00711
         559815.17    4197271.97        0.00962
559865.17    4197271.97        0.01340
         559915.17    4197271.97        0.01821
559965.17    4197271.97        0.01858
         560015.17    4197271.97        0.01179
560065.17    4197271.97        0.00707
         560115.17    4197271.97        0.00474
560165.17    4197271.97        0.00347
         560215.17    4197271.97        0.00269
560265.17    4197271.97        0.00218
         559565.17    4197321.97        0.00295
559615.17    4197321.97        0.00365
         559665.17    4197321.97        0.00462
559715.17    4197321.97        0.00607
         559765.17    4197321.97        0.00836
559815.17    4197321.97        0.01225
         559865.17    4197321.97        0.01971
559915.17    4197321.97        0.03344
         560015.17    4197321.97        0.01787
560065.17    4197321.97        0.00943
         560115.17    4197321.97        0.00592
560165.17    4197321.97        0.00414
         560215.17    4197321.97        0.00310
560265.17    4197321.97        0.00244
         559565.17    4197371.97        0.00291
559615.17    4197371.97        0.00364
         559665.17    4197371.97        0.00469
559715.17    4197371.97        0.00631
         559765.17    4197371.97        0.00899
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559815.17 4197371.97 0.01405

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON *** INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.02587	559915.17	4197371.97	0.05181
560015.17	4197371.97	0.02397	560065.17	4197371.97	0.01134
560115.17	4197371.97	0.00672	560165.17	4197371.97	0.00456
560215.17	4197371.97	0.00336	560265.17	4197371.97	0.00257
559565.17	4197421.97	0.00277	559615.17	4197421.97	0.00348
559665.17	4197421.97	0.00451	559715.17	4197421.97	0.00612
559765.17	4197421.97	0.00883	559815.17	4197421.97	0.01402
559865.17	4197421.97	0.02587	559915.17	4197421.97	0.06779
560015.17	4197421.97	0.02708	560065.17	4197421.97	0.01233
560115.17	4197421.97	0.00719	560165.17	4197421.97	0.00481
560215.17	4197421.97	0.00347	560265.17	4197421.97	0.00255
559565.17	4197471.97	0.00256	559615.17	4197471.97	0.00321
559665.17	4197471.97	0.00419	559715.17	4197471.97	0.00574
559765.17	4197471.97	0.00845			

559815.17 4197471.97 0.01391
559865.17 4197471.97 0.02671
559915.17 4197471.97 0.06302
560015.17 4197471.97 0.02868
560065.17 4197471.97 0.01314
560115.17 4197471.97 0.00756
560165.17 4197471.97 0.00493
560215.17 4197471.97 0.00329
560265.17 4197471.97 0.00244
559565.17 4197521.97 0.00235
559615.17 4197521.97 0.00294
559665.17 4197521.97 0.00383
559715.17 4197521.97 0.00526
559765.17 4197521.97 0.00779
559815.17 4197521.97 0.01255
559865.17 4197521.97 0.02420
559915.17 4197521.97 0.05807
560015.17 4197521.97 0.02718
560065.17 4197521.97 0.01260
560115.17 4197521.97 0.00728
560165.17 4197521.97 0.00474
560215.17 4197521.97 0.00314
560265.17 4197521.97 0.00229
559565.17 4197571.97 0.00217
559615.17 4197571.97 0.00272
559665.17 4197571.97 0.00354
559715.17 4197571.97 0.00484
559765.17 4197571.97 0.00693
559815.17 4197571.97 0.01080
559865.17 4197571.97 0.01868
559915.17 4197571.97 0.03946
559965.17 4197571.97 0.05420
560015.17 4197571.97 0.02182
560065.17 4197571.97 0.01108
560115.17 4197571.97 0.00670
560165.17 4197571.97 0.00431
560215.17 4197571.97 0.00296
560265.17 4197571.97 0.00218
559565.17 4197621.97 0.00205
559615.17 4197621.97 0.00258
559665.17 4197621.97 0.00336
559715.17 4197621.97 0.00455
559765.17 4197621.97 0.00573
559815.17 4197621.97 0.00961
559865.17 4197621.97 0.01500
559915.17 4197621.97 0.02312
559965.17 4197621.97 0.02541
560015.17 4197621.97 0.01648
560065.17 4197621.97 0.00959
560115.17 4197621.97 0.00581
560165.17 4197621.97 0.00422
560215.17 4197621.97 0.00283

560265.17 4197621.97 0.00212

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON *** INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00199	559615.17	4197671.97	0.00250
559665.17	4197671.97	0.00324	559715.17	4197671.97	0.00380
559765.17	4197671.97	0.00536	559815.17	4197671.97	0.00837
559865.17	4197671.97	0.01148	559915.17	4197671.97	0.01430
559965.17	4197671.97	0.01478	560015.17	4197671.97	0.01174
560065.17	4197671.97	0.00727	560115.17	4197671.97	0.00491
560165.17	4197671.97	0.00360	560215.17	4197671.97	0.00272
560265.17	4197671.97	0.00204	559565.17	4197721.97	0.00195
559615.17	4197721.97	0.00245	559665.17	4197721.97	0.00313
559715.17	4197721.97	0.00373	559765.17	4197721.97	0.00540
559815.17	4197721.97	0.00703	559865.17	4197721.97	0.00865
559915.17	4197721.97	0.00975	559965.17	4197721.97	0.00982
560015.17	4197721.97	0.00817	560065.17	4197721.97	0.00606
560115.17	4197721.97	0.00430			

560165.17 4197721.97 0.00319
560215.17 4197721.97 0.00242
560265.17 4197721.97 0.00175
559565.17 4197771.97 0.00193
559615.17 4197771.97 0.00240
559665.17 4197771.97 0.00303
559715.17 4197771.97 0.00382
559765.17 4197771.97 0.00479
559815.17 4197771.97 0.00581
559865.17 4197771.97 0.00666
559915.17 4197771.97 0.00715
559965.17 4197771.97 0.00712
560015.17 4197771.97 0.00632
560065.17 4197771.97 0.00502
560115.17 4197771.97 0.00375
560165.17 4197771.97 0.00281
560215.17 4197771.97 0.00195
560265.17 4197771.97 0.00139
559565.17 4197821.97 0.00190
559615.17 4197821.97 0.00221
559665.17 4197821.97 0.00276
559715.17 4197821.97 0.00348
559765.17 4197821.97 0.00416
559815.17 4197821.97 0.00479
559865.17 4197821.97 0.00525
559915.17 4197821.97 0.00548
559965.17 4197821.97 0.00546
560015.17 4197821.97 0.00496
560065.17 4197821.97 0.00422
560115.17 4197821.97 0.00329
560165.17 4197821.97 0.00248
560215.17 4197821.97 0.00170
560265.17 4197821.97 0.00116
560000.59 4197301.08 0.01856
560010.59 4197301.08 0.01604
560020.59 4197301.08 0.01396
560030.59 4197301.08 0.01227
560040.59 4197301.08 0.01089
560050.59 4197301.08 0.00974
560060.59 4197301.08 0.00878
560070.59 4197301.08 0.00797
560080.59 4197301.08 0.00726
560090.59 4197301.08 0.00665
560100.59 4197301.08 0.00611
560000.59 4197311.08 0.02046
560010.59 4197311.08 0.01754
560020.59 4197311.08 0.01516
560030.59 4197311.08 0.01324
560040.59 4197311.08 0.01169
560050.59 4197311.08 0.01040
560060.59 4197311.08 0.00933
560070.59 4197311.08 0.00842

560080.59 4197311.08 0.00765

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON *** INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.00698	560100.59	4197311.08	0.00640
560000.59	4197321.08	0.02239	560010.59	4197321.08	0.01906
560020.59	4197321.08	0.01637	560030.59	4197321.08	0.01422
560040.59	4197321.08	0.01248	560050.59	4197321.08	0.01106
560060.59	4197321.08	0.00987	560070.59	4197321.08	0.00887
560080.59	4197321.08	0.00802	560090.59	4197321.08	0.00730
560100.59	4197321.08	0.00668	560000.59	4197331.08	0.02429
560010.59	4197331.08	0.02056	560020.59	4197331.08	0.01755
560030.59	4197331.08	0.01517	560040.59	4197331.08	0.01326
560050.59	4197331.08	0.01169	560060.59	4197331.08	0.01038
560070.59	4197331.08	0.00929	560080.59	4197331.08	0.00837
560090.59	4197331.08	0.00760	560100.59	4197331.08	0.00693
560000.59	4197341.08	0.02617	560010.59	4197341.08	0.02202
560020.59	4197341.08	0.01870			

560030.59 4197341.08 0.01609
560040.59 4197341.08 0.01399
560050.59 4197341.08 0.01228
560060.59 4197341.08 0.01086
560070.59 4197341.08 0.00968
560080.59 4197341.08 0.00869
560090.59 4197341.08 0.00786
560100.59 4197341.08 0.00715
560000.59 4197351.08 0.02802
560010.59 4197351.08 0.02343
560020.59 4197351.08 0.01979
560030.59 4197351.08 0.01694
560040.59 4197351.08 0.01467
560050.59 4197351.08 0.01282
560060.59 4197351.08 0.01129
560070.59 4197351.08 0.01003
560080.59 4197351.08 0.00898
560090.59 4197351.08 0.00809
560100.59 4197351.08 0.00734
560000.59 4197361.08 0.02981
560010.59 4197361.08 0.02474
560020.59 4197361.08 0.02079
560030.59 4197361.08 0.01772
560040.59 4197361.08 0.01528
560050.59 4197361.08 0.01330
560060.59 4197361.08 0.01167
560070.59 4197361.08 0.01034
560080.59 4197361.08 0.00923
560090.59 4197361.08 0.00830
560100.59 4197361.08 0.00752
560000.59 4197371.08 0.03147
560010.59 4197371.08 0.02597
560020.59 4197371.08 0.02171
560030.59 4197371.08 0.01840
560040.59 4197371.08 0.01580
560050.59 4197371.08 0.01371
560060.59 4197371.08 0.01199
560070.59 4197371.08 0.01059
560080.59 4197371.08 0.00944
560090.59 4197371.08 0.00849
560100.59 4197371.08 0.00768
560000.59 4197381.08 0.03295
560010.59 4197381.08 0.02705
560020.59 4197381.08 0.02251
560030.59 4197381.08 0.01900
560040.59 4197381.08 0.01625
560050.59 4197381.08 0.01406
560060.59 4197381.08 0.01227
560070.59 4197381.08 0.01081
560080.59 4197381.08 0.00962
560090.59 4197381.08 0.00864
560100.59 4197381.08 0.00782

560000.59 4197391.08 0.03417

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON ***
INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.02794	560020.59	4197391.08	0.02316
560030.59	4197391.08	0.01950	560040.59	4197391.08	0.01663
560050.59	4197391.08	0.01435	560060.59	4197391.08	0.01251
560070.59	4197391.08	0.01102	560080.59	4197391.08	0.00979
560090.59	4197391.08	0.00879	560100.59	4197391.08	0.00794
560000.59	4197401.08	0.03510	560010.59	4197401.08	0.02861
560020.59	4197401.08	0.02367	560030.59	4197401.08	0.01989
560040.59	4197401.08	0.01694	560050.59	4197401.08	0.01461
560060.59	4197401.08	0.01273	560070.59	4197401.08	0.01121
560080.59	4197401.08	0.00995	560090.59	4197401.08	0.00891
560100.59	4197401.08	0.00806	560000.59	4197411.08	0.03579
560010.59	4197411.08	0.02911	560020.59	4197411.08	0.02407
560030.59	4197411.08	0.02021	560040.59	4197411.08	0.01720
560050.59	4197411.08	0.01482			

560060.59 4197411.08 0.01291
560070.59 4197411.08 0.01135
560080.59 4197411.08 0.01009
560090.59 4197411.08 0.00904
560100.59 4197411.08 0.00819
560000.59 4197421.08 0.03634
560010.59 4197421.08 0.02957
560020.59 4197421.08 0.02444
560030.59 4197421.08 0.02052
560040.59 4197421.08 0.01745
560050.59 4197421.08 0.01503
560060.59 4197421.08 0.01308
560070.59 4197421.08 0.01150
560080.59 4197421.08 0.01023
560090.59 4197421.08 0.00918
560100.59 4197421.08 0.00830
560000.59 4197431.08 0.03692
560010.59 4197431.08 0.03008
560020.59 4197431.08 0.02485
560030.59 4197431.08 0.02085
560040.59 4197431.08 0.01772
560050.59 4197431.08 0.01524
560060.59 4197431.08 0.01325
560070.59 4197431.08 0.01167
560080.59 4197431.08 0.01037
560090.59 4197431.08 0.00932
560100.59 4197431.08 0.00840
560000.59 4197441.08 0.03755
560010.59 4197441.08 0.03058
560020.59 4197441.08 0.02526
560030.59 4197441.08 0.02119
560040.59 4197441.08 0.01799
560050.59 4197441.08 0.01545
560060.59 4197441.08 0.01344
560070.59 4197441.08 0.01183
560080.59 4197441.08 0.01054
560090.59 4197441.08 0.00945
560100.59 4197441.08 0.00847
560000.59 4197451.08 0.03810
560010.59 4197451.08 0.03101
560020.59 4197451.08 0.02559
560030.59 4197451.08 0.02147
560040.59 4197451.08 0.01822
560050.59 4197451.08 0.01565
560060.59 4197451.08 0.01363
560070.59 4197451.08 0.01200
560080.59 4197451.08 0.01069
560090.59 4197451.08 0.00957
560100.59 4197451.08 0.00858
560000.59 4197461.08 0.03848
560010.59 4197461.08 0.03130
560020.59 4197461.08 0.02580

560030.59 4197461.08 0.02164

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_ON *** INCLUDING SOURCE(S):
PAREA1 , PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.01839	560050.59	4197461.08	0.01582
560060.59	4197461.08	0.01378	560070.59	4197461.08	0.01216
560080.59	4197461.08	0.01082	560090.59	4197461.08	0.00966
560100.59	4197461.08	0.00868	560000.59	4197471.08	0.03866
560010.59	4197471.08	0.03142	560020.59	4197471.08	0.02588
560030.59	4197471.08	0.02174	560040.59	4197471.08	0.01852
560050.59	4197471.08	0.01595	560060.59	4197471.08	0.01391
560070.59	4197471.08	0.01228	560080.59	4197471.08	0.01089
560090.59	4197471.08	0.00971	560100.59	4197471.08	0.00873
560000.59	4197481.08	0.03864	560010.59	4197481.08	0.03139
560020.59	4197481.08	0.02590	560030.59	4197481.08	0.02180
560040.59	4197481.08	0.01860	560050.59	4197481.08	0.01602
560060.59	4197481.08	0.01401	560070.59	4197481.08	0.01233
560080.59	4197481.08	0.01089			

560090.59 4197481.08 0.00972
560100.59 4197481.08 0.00875
560000.59 4197491.08 0.03841
560010.59 4197491.08 0.03122
560020.59 4197491.08 0.02585
560030.59 4197491.08 0.02180
560040.59 4197491.08 0.01858
560050.59 4197491.08 0.01604
560060.59 4197491.08 0.01401
560070.59 4197491.08 0.01227
560080.59 4197491.08 0.01084
560090.59 4197491.08 0.00968
560100.59 4197491.08 0.00872
560000.59 4197501.08 0.03798
560010.59 4197501.08 0.03096
560020.59 4197501.08 0.02570
560030.59 4197501.08 0.02166
560040.59 4197501.08 0.01847
560050.59 4197501.08 0.01597
560060.59 4197501.08 0.01390
560070.59 4197501.08 0.01215
560080.59 4197501.08 0.01074
560090.59 4197501.08 0.00960
560100.59 4197501.08 0.00864
559954.71 4197549.49 0.06867
559973.36 4197549.21 0.05578
559980.26 4197544.34 0.04833
559978.21 4197528.15 0.05487
559969.70 4197512.85 0.07081
559971.05 4197308.01 0.03183
559970.20 4197308.43 0.03257
559912.41 4197414.97 0.06459
559912.33 4197415.37 0.06445
559959.36 4197429.45 0.08428
559960.20 4197441.75 0.08728
559926.03 4197543.45 0.05955

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.00055	559615.17	4197121.97	0.00063
559665.17	4197121.97	0.00072	559715.17	4197121.97	0.00082
559765.17	4197121.97	0.00095	559815.17	4197121.97	0.00110
559865.17	4197121.97	0.00128	559915.17	4197121.97	0.00146
559965.17	4197121.97	0.00148	560015.17	4197121.97	0.00135
560065.17	4197121.97	0.00107	560115.17	4197121.97	0.00080
560165.17	4197121.97	0.00062	560215.17	4197121.97	0.00049
560265.17	4197121.97	0.00041	559565.17	4197171.97	0.00060
559615.17	4197171.97	0.00069	559665.17	4197171.97	0.00080
559715.17	4197171.97	0.00094	559765.17	4197171.97	0.00112
559815.17	4197171.97	0.00135	559865.17	4197171.97	0.00167
559915.17	4197171.97	0.00208	559965.17	4197171.97	0.00214

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         560015.17    4197171.97        0.00199
560065.17    4197171.97        0.00137
         560115.17    4197171.97        0.00096
560165.17    4197171.97        0.00073
         560215.17    4197171.97        0.00058
560265.17    4197171.97        0.00047
         559565.17    4197221.97        0.00065
559615.17    4197221.97        0.00075
         559665.17    4197221.97        0.00088
559715.17    4197221.97        0.00106
         559765.17    4197221.97        0.00130
559815.17    4197221.97        0.00165
         559865.17    4197221.97        0.00221
559915.17    4197221.97        0.00322
         559965.17    4197221.97        0.00453
560015.17    4197221.97        0.00341
         560065.17    4197221.97        0.00184
560115.17    4197221.97        0.00121
         560165.17    4197221.97        0.00088
560215.17    4197221.97        0.00067
         560265.17    4197221.97        0.00052
559565.17    4197271.97        0.00069
         559615.17    4197271.97        0.00080
559665.17    4197271.97        0.00095
         559715.17    4197271.97        0.00115
559765.17    4197271.97        0.00143
         559815.17    4197271.97        0.00188
559865.17    4197271.97        0.00270
         559915.17    4197271.97        0.00474
559965.17    4197271.97        0.01402
         560015.17    4197271.97        0.00613
560065.17    4197271.97        0.00249
         560115.17    4197271.97        0.00148
560165.17    4197271.97        0.00100
         560215.17    4197271.97        0.00073
560265.17    4197271.97        0.00056
         559565.17    4197321.97        0.00073
559615.17    4197321.97        0.00085
         559665.17    4197321.97        0.00101
559715.17    4197321.97        0.00122
         559765.17    4197321.97        0.00152
559815.17    4197321.97        0.00199
         559865.17    4197321.97        0.00286
559915.17    4197321.97        0.00445
         560015.17    4197321.97        0.00781
560065.17    4197321.97        0.00286
         560115.17    4197321.97        0.00161
560165.17    4197321.97        0.00105
         560215.17    4197321.97        0.00076
560265.17    4197321.97        0.00058
         559565.17    4197371.97        0.00077
559615.17    4197371.97        0.00091
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         559665.17    4197371.97        0.00108
559715.17    4197371.97        0.00132
         559765.17    4197371.97        0.00165
559815.17    4197371.97        0.00214
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.00298	559915.17	4197371.97	0.00425
560015.17	4197371.97	0.00681	560065.17	4197371.97	0.00286
560115.17	4197371.97	0.00165	560165.17	4197371.97	0.00109
560215.17	4197371.97	0.00080	560265.17	4197371.97	0.00060
559565.17	4197421.97	0.00082	559615.17	4197421.97	0.00098
559665.17	4197421.97	0.00118	559715.17	4197421.97	0.00147
559765.17	4197421.97	0.00187	559815.17	4197421.97	0.00247
559865.17	4197421.97	0.00342	559915.17	4197421.97	0.00508
560015.17	4197421.97	0.00534	560065.17	4197421.97	0.00293
560115.17	4197421.97	0.00175	560165.17	4197421.97	0.00119
560215.17	4197421.97	0.00089	560265.17	4197421.97	0.00068
559565.17	4197471.97	0.00085	559615.17	4197471.97	0.00104

559665.17 4197471.97 0.00128
559715.17 4197471.97 0.00164
559765.17 4197471.97 0.00218
559815.17 4197471.97 0.00301
559865.17 4197471.97 0.00429
559915.17 4197471.97 0.00613
560015.17 4197471.97 0.00522
560065.17 4197471.97 0.00311
560115.17 4197471.97 0.00193
560165.17 4197471.97 0.00135
560215.17 4197471.97 0.00100
560265.17 4197471.97 0.00078
559565.17 4197521.97 0.00087
559615.17 4197521.97 0.00108
559665.17 4197521.97 0.00136
559715.17 4197521.97 0.00179
559765.17 4197521.97 0.00244
559815.17 4197521.97 0.00351
559865.17 4197521.97 0.00558
559915.17 4197521.97 0.01049
560015.17 4197521.97 0.00743
560065.17 4197521.97 0.00363
560115.17 4197521.97 0.00220
560165.17 4197521.97 0.00147
560215.17 4197521.97 0.00110
560265.17 4197521.97 0.00085
559565.17 4197571.97 0.00087
559615.17 4197571.97 0.00108
559665.17 4197571.97 0.00139
559715.17 4197571.97 0.00186
559765.17 4197571.97 0.00256
559815.17 4197571.97 0.00378
559865.17 4197571.97 0.00617
559915.17 4197571.97 0.01349
559965.17 4197571.97 0.02771
560015.17 4197571.97 0.01045
560065.17 4197571.97 0.00414
560115.17 4197571.97 0.00238
560165.17 4197571.97 0.00154
560215.17 4197571.97 0.00111
560265.17 4197571.97 0.00085
559565.17 4197621.97 0.00084
559615.17 4197621.97 0.00106
559665.17 4197621.97 0.00138
559715.17 4197621.97 0.00186
559765.17 4197621.97 0.00254
559815.17 4197621.97 0.00405
559865.17 4197621.97 0.00699
559915.17 4197621.97 0.01444
559965.17 4197621.97 0.02668
560015.17 4197621.97 0.01104
560065.17 4197621.97 0.00420

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         560115.17    4197621.97        0.00234
560165.17    4197621.97        0.00154
         560215.17    4197621.97        0.00107
560265.17    4197621.97        0.00080
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00079	559615.17	4197671.97	0.00100
559665.17	4197671.97	0.00131	559715.17	4197671.97	0.00164
559765.17	4197671.97	0.00238	559815.17	4197671.97	0.00430
559865.17	4197671.97	0.00829	559915.17	4197671.97	0.01968
559965.17	4197671.97	0.02070	560015.17	4197671.97	0.00836
560065.17	4197671.97	0.00386	560115.17	4197671.97	0.00223
560165.17	4197671.97	0.00148	560215.17	4197671.97	0.00104
560265.17	4197671.97	0.00074	559565.17	4197721.97	0.00074
559615.17	4197721.97	0.00092	559665.17	4197721.97	0.00120
559715.17	4197721.97	0.00148	559765.17	4197721.97	0.00244
559815.17	4197721.97	0.00420	559865.17	4197721.97	0.00973
559915.17	4197721.97	0.02312	559965.17	4197721.97	0.01253

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         560015.17    4197721.97        0.00605
560065.17    4197721.97        0.00332
         560115.17    4197721.97        0.00202
560165.17    4197721.97        0.00133
         560215.17    4197721.97        0.00093
560265.17    4197721.97        0.00062
         559565.17    4197771.97        0.00068
559615.17    4197771.97        0.00085
         559665.17    4197771.97        0.00110
559715.17    4197771.97        0.00149
         559765.17    4197771.97        0.00217
559815.17    4197771.97        0.00361
         559865.17    4197771.97        0.00824
559915.17    4197771.97        0.01472
         559965.17    4197771.97        0.00767
560015.17    4197771.97        0.00450
         560065.17    4197771.97        0.00276
560115.17    4197771.97        0.00169
         560165.17    4197771.97        0.00119
560215.17    4197771.97        0.00076
         560265.17    4197771.97        0.00050
559565.17    4197821.97        0.00064
         559615.17    4197821.97        0.00074
559665.17    4197821.97        0.00095
         559715.17    4197821.97        0.00139
559765.17    4197821.97        0.00200
         559815.17    4197821.97        0.00318
559865.17    4197821.97        0.00552
         559915.17    4197821.97        0.00686
559965.17    4197821.97        0.00503
         560015.17    4197821.97        0.00337
560065.17    4197821.97        0.00221
         560115.17    4197821.97        0.00150
560165.17    4197821.97        0.00106
         560215.17    4197821.97        0.00068
560265.17    4197821.97        0.00044
         560000.59    4197301.08        0.01126
560010.59    4197301.08        0.00838
         560020.59    4197301.08        0.00633
560030.59    4197301.08        0.00498
         560040.59    4197301.08        0.00407
560050.59    4197301.08        0.00342
         560060.59    4197301.08        0.00293
560070.59    4197301.08        0.00256
         560080.59    4197301.08        0.00227
560090.59    4197301.08        0.00202
         560100.59    4197301.08        0.00182
560000.59    4197311.08        0.01186
         560010.59    4197311.08        0.00874
560020.59    4197311.08        0.00657
         560030.59    4197311.08        0.00515
560040.59    4197311.08        0.00419
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         560050.59    4197311.08        0.00351
560060.59    4197311.08        0.00300
         560070.59    4197311.08        0.00262
560080.59    4197311.08        0.00231
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.00205	560100.59	4197311.08	0.00184
560000.59	4197321.08	0.01210	560010.59	4197321.08	0.00893
560020.59	4197321.08	0.00672	560030.59	4197321.08	0.00526
560040.59	4197321.08	0.00428	560050.59	4197321.08	0.00358
560060.59	4197321.08	0.00305	560070.59	4197321.08	0.00265
560080.59	4197321.08	0.00233	560090.59	4197321.08	0.00207
560100.59	4197321.08	0.00186	560000.59	4197331.08	0.01196
560010.59	4197331.08	0.00893	560020.59	4197331.08	0.00676
560030.59	4197331.08	0.00531	560040.59	4197331.08	0.00432
560050.59	4197331.08	0.00360	560060.59	4197331.08	0.00307
560070.59	4197331.08	0.00266	560080.59	4197331.08	0.00234
560090.59	4197331.08	0.00208	560100.59	4197331.08	0.00187

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         560000.59    4197341.08        0.01148
560010.59    4197341.08        0.00873
         560020.59    4197341.08        0.00667
560030.59    4197341.08        0.00527
         560040.59    4197341.08        0.00430
560050.59    4197341.08        0.00360
         560060.59    4197341.08        0.00307
560070.59    4197341.08        0.00266
         560080.59    4197341.08        0.00234
560090.59    4197341.08        0.00209
         560100.59    4197341.08        0.00187
560000.59    4197351.08        0.01086
         560010.59    4197351.08        0.00835
560020.59    4197351.08        0.00648
         560030.59    4197351.08        0.00517
560040.59    4197351.08        0.00425
         560050.59    4197351.08        0.00357
560060.59    4197351.08        0.00306
         560070.59    4197351.08        0.00266
560080.59    4197351.08        0.00235
         560090.59    4197351.08        0.00209
560100.59    4197351.08        0.00188
         560000.59    4197361.08        0.01042
560010.59    4197361.08        0.00798
         560020.59    4197361.08        0.00626
560030.59    4197361.08        0.00506
         560040.59    4197361.08        0.00420
560050.59    4197361.08        0.00355
         560060.59    4197361.08        0.00305
560070.59    4197361.08        0.00266
         560080.59    4197361.08        0.00236
560090.59    4197361.08        0.00210
         560100.59    4197361.08        0.00189
560000.59    4197371.08        0.00974
         560010.59    4197371.08        0.00760
560020.59    4197371.08        0.00606
         560030.59    4197371.08        0.00495
560040.59    4197371.08        0.00414
         560050.59    4197371.08        0.00353
560060.59    4197371.08        0.00305
         560070.59    4197371.08        0.00267
560080.59    4197371.08        0.00236
         560090.59    4197371.08        0.00211
560100.59    4197371.08        0.00190
         560000.59    4197381.08        0.00888
560010.59    4197381.08        0.00719
         560020.59    4197381.08        0.00586
560030.59    4197381.08        0.00486
         560040.59    4197381.08        0.00410
560050.59    4197381.08        0.00352
         560060.59    4197381.08        0.00305
560070.59    4197381.08        0.00268
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         560080.59    4197381.08        0.00238
560090.59    4197381.08        0.00213
         560100.59    4197381.08        0.00192
560000.59    4197391.08        0.00802
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.00675	560020.59	4197391.08	0.00564
560030.59	4197391.08	0.00476	560040.59	4197391.08	0.00407
560050.59	4197391.08	0.00351	560060.59	4197391.08	0.00307
560070.59	4197391.08	0.00270	560080.59	4197391.08	0.00240
560090.59	4197391.08	0.00215	560100.59	4197391.08	0.00194
560000.59	4197401.08	0.00724	560010.59	4197401.08	0.00631
560020.59	4197401.08	0.00542	560030.59	4197401.08	0.00466
560040.59	4197401.08	0.00403	560050.59	4197401.08	0.00351
560060.59	4197401.08	0.00308	560070.59	4197401.08	0.00272
560080.59	4197401.08	0.00242	560090.59	4197401.08	0.00217
560100.59	4197401.08	0.00196	560000.59	4197411.08	0.00662
560010.59	4197411.08	0.00592	560020.59	4197411.08	0.00521

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         560030.59    4197411.08        0.00456
560040.59    4197411.08        0.00399
         560050.59    4197411.08        0.00350
560060.59    4197411.08        0.00308
         560070.59    4197411.08        0.00273
560080.59    4197411.08        0.00244
         560090.59    4197411.08        0.00219
560100.59    4197411.08        0.00199
         560000.59    4197421.08        0.00617
560010.59    4197421.08        0.00563
         560020.59    4197421.08        0.00504
560030.59    4197421.08        0.00447
         560040.59    4197421.08        0.00395
560050.59    4197421.08        0.00349
         560060.59    4197421.08        0.00309
560070.59    4197421.08        0.00275
         560080.59    4197421.08        0.00246
560090.59    4197421.08        0.00222
         560100.59    4197421.08        0.00201
560000.59    4197431.08        0.00586
         560010.59    4197431.08        0.00542
560020.59    4197431.08        0.00492
         560030.59    4197431.08        0.00441
560040.59    4197431.08        0.00393
         560050.59    4197431.08        0.00349
560060.59    4197431.08        0.00310
         560070.59    4197431.08        0.00277
560080.59    4197431.08        0.00249
         560090.59    4197431.08        0.00225
560100.59    4197431.08        0.00204
         560000.59    4197441.08        0.00569
560010.59    4197441.08        0.00529
         560020.59    4197441.08        0.00485
560030.59    4197441.08        0.00438
         560040.59    4197441.08        0.00393
560050.59    4197441.08        0.00350
         560060.59    4197441.08        0.00312
560070.59    4197441.08        0.00279
         560080.59    4197441.08        0.00252
560090.59    4197441.08        0.00228
         560100.59    4197441.08        0.00206
560000.59    4197451.08        0.00563
         560010.59    4197451.08        0.00525
560020.59    4197451.08        0.00482
         560030.59    4197451.08        0.00438
560040.59    4197451.08        0.00394
         560050.59    4197451.08        0.00352
560060.59    4197451.08        0.00315
         560070.59    4197451.08        0.00283
560080.59    4197451.08        0.00256
         560090.59    4197451.08        0.00231
560100.59    4197451.08        0.00209
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         560000.59    4197461.08        0.00569
560010.59    4197461.08        0.00529
         560020.59    4197461.08        0.00486
560030.59    4197461.08        0.00441
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y1_OFF ***
INCLUDING SOURCE(S):
A0000013 , A0000014 , A0000015 , A0000007 , A0000008 ,
A0000009 , A0000010 , A0000011 , A0000012 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.00398	560050.59	4197461.08	0.00357
560060.59	4197461.08	0.00320	560070.59	4197461.08	0.00288
560080.59	4197461.08	0.00260	560090.59	4197461.08	0.00235
560100.59	4197461.08	0.00214	560000.59	4197471.08	0.00586
560010.59	4197471.08	0.00542	560020.59	4197471.08	0.00495
560030.59	4197471.08	0.00449	560040.59	4197471.08	0.00405
560050.59	4197471.08	0.00363	560060.59	4197471.08	0.00326
560070.59	4197471.08	0.00294	560080.59	4197471.08	0.00265
560090.59	4197471.08	0.00240	560100.59	4197471.08	0.00218
560000.59	4197481.08	0.00616	560010.59	4197481.08	0.00565
560020.59	4197481.08	0.00513	560030.59	4197481.08	0.00463
560040.59	4197481.08	0.00416	560050.59	4197481.08	0.00372

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         560060.59    4197481.08        0.00334
560070.59    4197481.08        0.00300
         560080.59    4197481.08        0.00270
560090.59    4197481.08        0.00245
         560100.59    4197481.08        0.00224
560000.59    4197491.08        0.00661
         560010.59    4197491.08        0.00599
560020.59    4197491.08        0.00539
         560030.59    4197491.08        0.00482
560040.59    4197491.08        0.00430
         560050.59    4197491.08        0.00384
560060.59    4197491.08        0.00344
         560070.59    4197491.08        0.00307
560080.59    4197491.08        0.00277
         560090.59    4197491.08        0.00251
560100.59    4197491.08        0.00229
         560000.59    4197501.08        0.00725
560010.59    4197501.08        0.00647
         560020.59    4197501.08        0.00574
560030.59    4197501.08        0.00508
         560040.59    4197501.08        0.00448
560050.59    4197501.08        0.00399
         560060.59    4197501.08        0.00355
560070.59    4197501.08        0.00316
         560080.59    4197501.08        0.00285
560090.59    4197501.08        0.00258
         560100.59    4197501.08        0.00236
559954.71    4197549.49        0.02133
         559973.36    4197549.21        0.02199
559980.26    4197544.34        0.01918
         559978.21    4197528.15        0.01394
559969.70    4197512.85        0.01089
         559971.05    4197308.01        0.02230
559970.20    4197308.43        0.02278
         559912.41    4197414.97        0.00491
559912.33    4197415.37        0.00491
         559959.36    4197429.45        0.00643
559960.20    4197441.75        0.00628
         559926.03    4197543.45        0.01689
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.00248	559615.17	4197121.97	0.00282
559665.17	4197121.97	0.00324	559715.17	4197121.97	0.00373
559765.17	4197121.97	0.00434	559815.17	4197121.97	0.00503
559865.17	4197121.97	0.00569	559915.17	4197121.97	0.00612
559965.17	4197121.97	0.00591	560015.17	4197121.97	0.00524
560065.17	4197121.97	0.00420	560115.17	4197121.97	0.00319
560165.17	4197121.97	0.00245	560215.17	4197121.97	0.00194
560265.17	4197121.97	0.00160	559565.17	4197171.97	0.00276
559615.17	4197171.97	0.00319	559665.17	4197171.97	0.00374
559715.17	4197171.97	0.00441	559765.17	4197171.97	0.00528
559815.17	4197171.97	0.00635	559865.17	4197171.97	0.00753
559915.17	4197171.97	0.00851	559965.17	4197171.97	0.00797

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         560015.17    4197171.97        0.00711
560065.17    4197171.97        0.00522
         560115.17    4197171.97        0.00375
560165.17    4197171.97        0.00283
         560215.17    4197171.97        0.00225
560265.17    4197171.97        0.00186
         559565.17    4197221.97        0.00303
559615.17    4197221.97        0.00357
         559665.17    4197221.97        0.00428
559715.17    4197221.97        0.00520
         559765.17    4197221.97        0.00645
559815.17    4197221.97        0.00816
         559865.17    4197221.97        0.01038
559915.17    4197221.97        0.01278
         559965.17    4197221.97        0.01369
560015.17    4197221.97        0.01048
         560065.17    4197221.97        0.00665
560115.17    4197221.97        0.00457
         560165.17    4197221.97        0.00339
560215.17    4197221.97        0.00266
         560265.17    4197221.97        0.00217
559565.17    4197271.97        0.00324
         559615.17    4197271.97        0.00389
559665.17    4197271.97        0.00478
         559715.17    4197271.97        0.00600
559765.17    4197271.97        0.00778
         559815.17    4197271.97        0.01047
559865.17    4197271.97        0.01467
         559915.17    4197271.97        0.02093
559965.17    4197271.97        0.02995
         560015.17    4197271.97        0.01642
560065.17    4197271.97        0.00874
         560115.17    4197271.97        0.00568
560165.17    4197271.97        0.00408
         560215.17    4197271.97        0.00312
560265.17    4197271.97        0.00250
         559565.17    4197321.97        0.00336
559615.17    4197321.97        0.00411
         559665.17    4197321.97        0.00513
559715.17    4197321.97        0.00663
         559765.17    4197321.97        0.00899
559815.17    4197321.97        0.01296
         559865.17    4197321.97        0.02052
559915.17    4197321.97        0.03444
         560015.17    4197321.97        0.02349
560065.17    4197321.97        0.01121
         560115.17    4197321.97        0.00686
560165.17    4197321.97        0.00473
         560215.17    4197321.97        0.00351
560265.17    4197321.97        0.00276
         559565.17    4197371.97        0.00336
559615.17    4197371.97        0.00415
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         559665.17    4197371.97        0.00526
559715.17    4197371.97        0.00695
         559765.17    4197371.97        0.00968
559815.17    4197371.97        0.01472
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.02622	559915.17	4197371.97	0.05090
560015.17	4197371.97	0.02808	560065.17	4197371.97	0.01295
560115.17	4197371.97	0.00764	560165.17	4197371.97	0.00516
560215.17	4197371.97	0.00380	560265.17	4197371.97	0.00289
559565.17	4197421.97	0.00327	559615.17	4197421.97	0.00407
559665.17	4197421.97	0.00519	559715.17	4197421.97	0.00692
559765.17	4197421.97	0.00974	559815.17	4197421.97	0.01502
559865.17	4197421.97	0.02664	559915.17	4197421.97	0.06614
560015.17	4197421.97	0.02952	560065.17	4197421.97	0.01391
560115.17	4197421.97	0.00815	560165.17	4197421.97	0.00547
560215.17	4197421.97	0.00398	560265.17	4197421.97	0.00294
559565.17	4197471.97	0.00312	559615.17	4197471.97	0.00388

559665.17 4197471.97 0.00499
559715.17 4197471.97 0.00673
559765.17 4197471.97 0.00969
559815.17 4197471.97 0.01542
559865.17 4197471.97 0.02821
559915.17 4197471.97 0.06281
560015.17 4197471.97 0.03086
560065.17 4197471.97 0.01481
560115.17 4197471.97 0.00866
560165.17 4197471.97 0.00573
560215.17 4197471.97 0.00391
560265.17 4197471.97 0.00295
559565.17 4197521.97 0.00294
559615.17 4197521.97 0.00367
559665.17 4197521.97 0.00474
559715.17 4197521.97 0.00643
559765.17 4197521.97 0.00934
559815.17 4197521.97 0.01465
559865.17 4197521.97 0.02714
559915.17 4197521.97 0.06241
560015.17 4197521.97 0.03157
560065.17 4197521.97 0.01481
560115.17 4197521.97 0.00866
560165.17 4197521.97 0.00567
560215.17 4197521.97 0.00387
560265.17 4197521.97 0.00287
559565.17 4197571.97 0.00278
559615.17 4197571.97 0.00347
559665.17 4197571.97 0.00451
559715.17 4197571.97 0.00612
559765.17 4197571.97 0.00867
559815.17 4197571.97 0.01332
559865.17 4197571.97 0.02269
559915.17 4197571.97 0.04837
559965.17 4197571.97 0.07500
560015.17 4197571.97 0.02954
560065.17 4197571.97 0.01391
560115.17 4197571.97 0.00829
560165.17 4197571.97 0.00535
560215.17 4197571.97 0.00372
560265.17 4197571.97 0.00278
559565.17 4197621.97 0.00264
559615.17 4197621.97 0.00332
559665.17 4197621.97 0.00433
559715.17 4197621.97 0.00586
559765.17 4197621.97 0.00756
559815.17 4197621.97 0.01249
559865.17 4197621.97 0.02013
559915.17 4197621.97 0.03446
559965.17 4197621.97 0.04799
560015.17 4197621.97 0.02526
560065.17 4197621.97 0.01262

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         560115.17    4197621.97        0.00745
560165.17    4197621.97        0.00526
         560215.17    4197621.97        0.00357
560265.17    4197621.97        0.00267
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00254	559615.17	4197671.97	0.00320
559665.17	4197671.97	0.00416	559715.17	4197671.97	0.00497
559765.17	4197671.97	0.00709	559815.17	4197671.97	0.01161
559865.17	4197671.97	0.01816	559915.17	4197671.97	0.03138
559965.17	4197671.97	0.03277	560015.17	4197671.97	0.01845
560065.17	4197671.97	0.01020	560115.17	4197671.97	0.00653
560165.17	4197671.97	0.00465	560215.17	4197671.97	0.00343
560265.17	4197671.97	0.00254	559565.17	4197721.97	0.00245
559615.17	4197721.97	0.00309	559665.17	4197721.97	0.00395
559715.17	4197721.97	0.00476	559765.17	4197721.97	0.00718
559815.17	4197721.97	0.01030	559865.17	4197721.97	0.01695
559915.17	4197721.97	0.03048	559965.17	4197721.97	0.02063

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         560015.17    4197721.97        0.01307
560065.17    4197721.97        0.00860
         560115.17    4197721.97        0.00578
560165.17    4197721.97        0.00413
         560215.17    4197721.97        0.00306
560265.17    4197721.97        0.00217
         559565.17    4197771.97        0.00239
559615.17    4197771.97        0.00298
         559665.17    4197771.97        0.00377
559715.17    4197771.97        0.00485
         559765.17    4197771.97        0.00637
559815.17    4197771.97        0.00864
         559865.17    4197771.97        0.01375
559915.17    4197771.97        0.02025
         559965.17    4197771.97        0.01363
560015.17    4197771.97        0.00994
         560065.17    4197771.97        0.00713
560115.17    4197771.97        0.00498
         560165.17    4197771.97        0.00366
560215.17    4197771.97        0.00248
         560265.17    4197771.97        0.00173
559565.17    4197821.97        0.00233
         559615.17    4197821.97        0.00270
559665.17    4197821.97        0.00338
         559715.17    4197821.97        0.00445
559765.17    4197821.97        0.00565
         559815.17    4197821.97        0.00731
559865.17    4197821.97        0.00992
         559915.17    4197821.97        0.01139
559965.17    4197821.97        0.00965
         560015.17    4197821.97        0.00765
560065.17    4197821.97        0.00588
         560115.17    4197821.97        0.00438
560165.17    4197821.97        0.00324
         560215.17    4197821.97        0.00218
560265.17    4197821.97        0.00146
         560000.59    4197301.08        0.02735
560010.59    4197301.08        0.02237
         560020.59    4197301.08        0.01857
560030.59    4197301.08        0.01578
         560040.59    4197301.08        0.01367
560050.59    4197301.08        0.01202
         560060.59    4197301.08        0.01070
560070.59    4197301.08        0.00962
         560080.59    4197301.08        0.00870
560090.59    4197301.08        0.00791
         560100.59    4197301.08        0.00723
560000.59    4197311.08        0.02963
         560010.59    4197311.08        0.02406
560020.59    4197311.08        0.01988
         560030.59    4197311.08        0.01681
560040.59    4197311.08        0.01451
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         560050.59    4197311.08        0.01271
560060.59    4197311.08        0.01126
         560070.59    4197311.08        0.01008
560080.59    4197311.08        0.00909
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*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.00824	560100.59	4197311.08	0.00752
560000.59	4197321.08	0.03160	560010.59	4197321.08	0.02561
560020.59	4197321.08	0.02111	560030.59	4197321.08	0.01780
560040.59	4197321.08	0.01531	560050.59	4197321.08	0.01336
560060.59	4197321.08	0.01179	560070.59	4197321.08	0.01051
560080.59	4197321.08	0.00945	560090.59	4197321.08	0.00855
560100.59	4197321.08	0.00779	560000.59	4197331.08	0.03320
560010.59	4197331.08	0.02697	560020.59	4197331.08	0.02222
560030.59	4197331.08	0.01871	560040.59	4197331.08	0.01605
560050.59	4197331.08	0.01396	560060.59	4197331.08	0.01227
560070.59	4197331.08	0.01090	560080.59	4197331.08	0.00977
560090.59	4197331.08	0.00883	560100.59	4197331.08	0.00803

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         560000.59    4197341.08        0.03445
560010.59    4197341.08        0.02811
         560020.59    4197341.08        0.02318
560030.59    4197341.08        0.01951
         560040.59    4197341.08        0.01670
560050.59    4197341.08        0.01448
         560060.59    4197341.08        0.01270
560070.59    4197341.08        0.01126
         560080.59    4197341.08        0.01006
560090.59    4197341.08        0.00907
         560100.59    4197341.08        0.00823
560000.59    4197351.08        0.03555
         560010.59    4197351.08        0.02904
560020.59    4197351.08        0.02398
         560030.59    4197351.08        0.02018
560040.59    4197351.08        0.01726
         560050.59    4197351.08        0.01495
560060.59    4197351.08        0.01309
         560070.59    4197351.08        0.01158
560080.59    4197351.08        0.01033
         560090.59    4197351.08        0.00929
560100.59    4197351.08        0.00840
         560000.59    4197361.08        0.03674
560010.59    4197361.08        0.02988
         560020.59    4197361.08        0.02469
560030.59    4197361.08        0.02078
         560040.59    4197361.08        0.01777
560050.59    4197361.08        0.01536
         560060.59    4197361.08        0.01342
560070.59    4197361.08        0.01185
         560080.59    4197361.08        0.01057
560090.59    4197361.08        0.00949
         560100.59    4197361.08        0.00858
560000.59    4197371.08        0.03762
         560010.59    4197371.08        0.03063
560020.59    4197371.08        0.02533
         560030.59    4197371.08        0.02130
560040.59    4197371.08        0.01819
         560050.59    4197371.08        0.01572
560060.59    4197371.08        0.01371
         560070.59    4197371.08        0.01209
560080.59    4197371.08        0.01077
         560090.59    4197371.08        0.00966
560100.59    4197371.08        0.00874
         560000.59    4197381.08        0.03815
560010.59    4197381.08        0.03123
         560020.59    4197381.08        0.02587
560030.59    4197381.08        0.02175
         560040.59    4197381.08        0.01855
560050.59    4197381.08        0.01602
         560060.59    4197381.08        0.01397
560070.59    4197381.08        0.01230
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          560080.59    4197381.08        0.01094
560090.59    4197381.08        0.00982
          560100.59    4197381.08        0.00888
560000.59    4197391.08        0.03845
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.03162	560020.59	4197391.08	0.02626
560030.59	4197391.08	0.02212	560040.59	4197391.08	0.01887
560050.59	4197391.08	0.01629	560060.59	4197391.08	0.01420
560070.59	4197391.08	0.01251	560080.59	4197391.08	0.01112
560090.59	4197391.08	0.00997	560100.59	4197391.08	0.00901
560000.59	4197401.08	0.03857	560010.59	4197401.08	0.03181
560020.59	4197401.08	0.02651	560030.59	4197401.08	0.02237
560040.59	4197401.08	0.01911	560050.59	4197401.08	0.01651
560060.59	4197401.08	0.01441	560070.59	4197401.08	0.01270
560080.59	4197401.08	0.01128	560090.59	4197401.08	0.01011
560100.59	4197401.08	0.00914	560000.59	4197411.08	0.03861
560010.59	4197411.08	0.03191	560020.59	4197411.08	0.02668

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         560030.59    4197411.08        0.02257
560040.59    4197411.08        0.01931
         560050.59    4197411.08        0.01670
560060.59    4197411.08        0.01458
         560070.59    4197411.08        0.01284
560080.59    4197411.08        0.01142
         560090.59    4197411.08        0.01024
560100.59    4197411.08        0.00928
         560000.59    4197421.08        0.03869
560010.59    4197421.08        0.03204
         560020.59    4197421.08        0.02685
560030.59    4197421.08        0.02277
         560040.59    4197421.08        0.01950
560050.59    4197421.08        0.01688
         560060.59    4197421.08        0.01473
560070.59    4197421.08        0.01299
         560080.59    4197421.08        0.01157
560090.59    4197421.08        0.01039
         560100.59    4197421.08        0.00941
560000.59    4197431.08        0.03893
         560010.59    4197431.08        0.03231
560020.59    4197431.08        0.02711
         560030.59    4197431.08        0.02301
560040.59    4197431.08        0.01973
         560050.59    4197431.08        0.01707
560060.59    4197431.08        0.01490
         560070.59    4197431.08        0.01316
560080.59    4197431.08        0.01172
         560090.59    4197431.08        0.01055
560100.59    4197431.08        0.00951
         560000.59    4197441.08        0.03933
560010.59    4197441.08        0.03265
         560020.59    4197441.08        0.02741
560030.59    4197441.08        0.02329
         560040.59    4197441.08        0.01997
560050.59    4197441.08        0.01727
         560060.59    4197441.08        0.01510
560070.59    4197441.08        0.01333
         560080.59    4197441.08        0.01190
560090.59    4197441.08        0.01069
         560100.59    4197441.08        0.00960
560000.59    4197451.08        0.03978
         560010.59    4197451.08        0.03300
560020.59    4197451.08        0.02769
         560030.59    4197451.08        0.02355
560040.59    4197451.08        0.02019
         560050.59    4197451.08        0.01747
560060.59    4197451.08        0.01529
         560070.59    4197451.08        0.01351
560080.59    4197451.08        0.01208
         560090.59    4197451.08        0.01083
560100.59    4197451.08        0.00973
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         560000.59    4197461.08        0.04018
560010.59    4197461.08        0.03330
         560020.59    4197461.08        0.02791
560030.59    4197461.08        0.02373
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ALL ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 , A0000016 , A0000017 , A0000018 ,
A0000019 , A0000020 , A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.02037	560050.59	4197461.08	0.01767
560060.59	4197461.08	0.01547	560070.59	4197461.08	0.01371
560080.59	4197461.08	0.01223	560090.59	4197461.08	0.01095
560100.59	4197461.08	0.00986	560000.59	4197471.08	0.04050
560010.59	4197471.08	0.03353	560020.59	4197471.08	0.02807
560030.59	4197471.08	0.02390	560040.59	4197471.08	0.02056
560050.59	4197471.08	0.01785	560060.59	4197471.08	0.01565
560070.59	4197471.08	0.01387	560080.59	4197471.08	0.01234
560090.59	4197471.08	0.01104	560100.59	4197471.08	0.00995
560000.59	4197481.08	0.04076	560010.59	4197481.08	0.03371
560020.59	4197481.08	0.02825	560030.59	4197481.08	0.02408
560040.59	4197481.08	0.02073	560050.59	4197481.08	0.01799

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         560060.59    4197481.08        0.01581
560070.59    4197481.08        0.01397
         560080.59    4197481.08        0.01239
560090.59    4197481.08        0.01109
         560100.59    4197481.08        0.01002
560000.59    4197491.08        0.04097
         560010.59    4197491.08        0.03388
560020.59    4197491.08        0.02845
         560030.59    4197491.08        0.02426
560040.59    4197491.08        0.02086
         560050.59    4197491.08        0.01812
560060.59    4197491.08        0.01591
         560070.59    4197491.08        0.01399
560080.59    4197491.08        0.01240
         560090.59    4197491.08        0.01112
560100.59    4197491.08        0.01004
         560000.59    4197501.08        0.04118
560010.59    4197501.08        0.03410
         560020.59    4197501.08        0.02865
560030.59    4197501.08        0.02437
         560040.59    4197501.08        0.02092
560050.59    4197501.08        0.01820
         560060.59    4197501.08        0.01591
560070.59    4197501.08        0.01397
         560080.59    4197501.08        0.01239
560090.59    4197501.08        0.01111
         560100.59    4197501.08        0.01004
559954.71    4197549.49        0.08214
         559973.36    4197549.21        0.07108
559980.26    4197544.34        0.06173
         559978.21    4197528.15        0.06275
559969.70    4197512.85        0.07432
         559971.05    4197308.01        0.04971
559970.20    4197308.43        0.05083
         559912.41    4197414.97        0.06309
559912.33    4197415.37        0.06296
         559959.36    4197429.45        0.08234
559960.20    4197441.75        0.08492
         559926.03    4197543.45        0.06974
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.00196	559615.17	4197121.97	0.00223
559665.17	4197121.97	0.00257	559715.17	4197121.97	0.00297
559765.17	4197121.97	0.00346	559815.17	4197121.97	0.00401
559865.17	4197121.97	0.00450	559915.17	4197121.97	0.00476
559965.17	4197121.97	0.00453	560015.17	4197121.97	0.00397
560065.17	4197121.97	0.00320	560115.17	4197121.97	0.00244
560165.17	4197121.97	0.00187	560215.17	4197121.97	0.00148
560265.17	4197121.97	0.00122	559565.17	4197171.97	0.00220
559615.17	4197171.97	0.00255	559665.17	4197171.97	0.00298
559715.17	4197171.97	0.00353	559765.17	4197171.97	0.00423
559815.17	4197171.97	0.00508	559865.17	4197171.97	0.00597
559915.17	4197171.97	0.00656	559965.17	4197171.97	0.00597
560015.17	4197171.97	0.00525	560065.17	4197171.97	0.00394
560115.17	4197171.97	0.00285			

560165.17 4197171.97 0.00215
560215.17 4197171.97 0.00171
560265.17 4197171.97 0.00142
559565.17 4197221.97 0.00242
559615.17 4197221.97 0.00287
559665.17 4197221.97 0.00345
559715.17 4197221.97 0.00421
559765.17 4197221.97 0.00523
559815.17 4197221.97 0.00661
559865.17 4197221.97 0.00831
559915.17 4197221.97 0.00976
559965.17 4197221.97 0.00946
560015.17 4197221.97 0.00728
560065.17 4197221.97 0.00493
560115.17 4197221.97 0.00343
560165.17 4197221.97 0.00257
560215.17 4197221.97 0.00203
560265.17 4197221.97 0.00168
559565.17 4197271.97 0.00259
559615.17 4197271.97 0.00315
559665.17 4197271.97 0.00389
559715.17 4197271.97 0.00493
559765.17 4197271.97 0.00644
559815.17 4197271.97 0.00871
559865.17 4197271.97 0.01214
559915.17 4197271.97 0.01649
559965.17 4197271.97 0.01682
560015.17 4197271.97 0.01067
560065.17 4197271.97 0.00640
560115.17 4197271.97 0.00429
560165.17 4197271.97 0.00314
560215.17 4197271.97 0.00244
560265.17 4197271.97 0.00197
559565.17 4197321.97 0.00267
559615.17 4197321.97 0.00331
559665.17 4197321.97 0.00419
559715.17 4197321.97 0.00549
559765.17 4197321.97 0.00757
559815.17 4197321.97 0.01110
559865.17 4197321.97 0.01785
559915.17 4197321.97 0.03028
560015.17 4197321.97 0.01618
560065.17 4197321.97 0.00854
560115.17 4197321.97 0.00536
560165.17 4197321.97 0.00375
560215.17 4197321.97 0.00281
560265.17 4197321.97 0.00221
559565.17 4197371.97 0.00263
559615.17 4197371.97 0.00330
559665.17 4197371.97 0.00425
559715.17 4197371.97 0.00572
559765.17 4197371.97 0.00814

559815.17 4197371.97 0.01272

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.02343	559915.17	4197371.97	0.04692
560015.17	4197371.97	0.02170	560065.17	4197371.97	0.01027
560115.17	4197371.97	0.00609	560165.17	4197371.97	0.00413
560215.17	4197371.97	0.00305	560265.17	4197371.97	0.00233
559565.17	4197421.97	0.00251	559615.17	4197421.97	0.00315
559665.17	4197421.97	0.00409	559715.17	4197421.97	0.00554
559765.17	4197421.97	0.00800	559815.17	4197421.97	0.01270
559865.17	4197421.97	0.02343	559915.17	4197421.97	0.06139
560015.17	4197421.97	0.02452	560065.17	4197421.97	0.01117
560115.17	4197421.97	0.00651	560165.17	4197421.97	0.00436
560215.17	4197421.97	0.00315	560265.17	4197421.97	0.00231
559565.17	4197471.97	0.00232	559615.17	4197471.97	0.00291
559665.17	4197471.97	0.00379	559715.17	4197471.97	0.00520
559765.17	4197471.97	0.00765			

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559815.17    4197471.97        0.01260
         559865.17    4197471.97        0.02419
559915.17    4197471.97        0.05707
         560015.17    4197471.97        0.02597
560065.17    4197471.97        0.01190
         560115.17    4197471.97        0.00685
560165.17    4197471.97        0.00447
         560215.17    4197471.97        0.00298
560265.17    4197471.97        0.00221
         559565.17    4197521.97        0.00212
559615.17    4197521.97        0.00266
         559665.17    4197521.97        0.00347
559715.17    4197521.97        0.00476
         559765.17    4197521.97        0.00706
559815.17    4197521.97        0.01137
         559865.17    4197521.97        0.02191
559915.17    4197521.97        0.05259
         560015.17    4197521.97        0.02461
560065.17    4197521.97        0.01141
         560115.17    4197521.97        0.00659
560165.17    4197521.97        0.00429
         560215.17    4197521.97        0.00284
560265.17    4197521.97        0.00207
         559565.17    4197571.97        0.00196
559615.17    4197571.97        0.00246
         559665.17    4197571.97        0.00321
559715.17    4197571.97        0.00438
         559765.17    4197571.97        0.00628
559815.17    4197571.97        0.00978
         559865.17    4197571.97        0.01691
559915.17    4197571.97        0.03574
         559965.17    4197571.97        0.04908
560015.17    4197571.97        0.01976
         560065.17    4197571.97        0.01004
560115.17    4197571.97        0.00607
         560165.17    4197571.97        0.00391
560215.17    4197571.97        0.00268
         560265.17    4197571.97        0.00198
559565.17    4197621.97        0.00186
         559615.17    4197621.97        0.00233
559665.17    4197621.97        0.00304
         559715.17    4197621.97        0.00412
559765.17    4197621.97        0.00519
         559815.17    4197621.97        0.00870
559865.17    4197621.97        0.01359
         559915.17    4197621.97        0.02093
559965.17    4197621.97        0.02301
         560015.17    4197621.97        0.01492
560065.17    4197621.97        0.00869
         560115.17    4197621.97        0.00526
560165.17    4197621.97        0.00382
         560215.17    4197621.97        0.00256
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560265.17 4197621.97 0.00192

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00180	559615.17	4197671.97	0.00226
559665.17	4197671.97	0.00294	559715.17	4197671.97	0.00344
559765.17	4197671.97	0.00485	559815.17	4197671.97	0.00758
559865.17	4197671.97	0.01040	559915.17	4197671.97	0.01295
559965.17	4197671.97	0.01338	560015.17	4197671.97	0.01063
560065.17	4197671.97	0.00658	560115.17	4197671.97	0.00444
560165.17	4197671.97	0.00326	560215.17	4197671.97	0.00246
560265.17	4197671.97	0.00185	559565.17	4197721.97	0.00177
559615.17	4197721.97	0.00222	559665.17	4197721.97	0.00283
559715.17	4197721.97	0.00338	559765.17	4197721.97	0.00489
559815.17	4197721.97	0.00637	559865.17	4197721.97	0.00783
559915.17	4197721.97	0.00883	559965.17	4197721.97	0.00889
560015.17	4197721.97	0.00740	560065.17	4197721.97	0.00548
560115.17	4197721.97	0.00389			

560165.17 4197721.97 0.00289
560215.17 4197721.97 0.00219
560265.17 4197721.97 0.00159
559565.17 4197771.97 0.00175
559615.17 4197771.97 0.00218
559665.17 4197771.97 0.00274
559715.17 4197771.97 0.00346
559765.17 4197771.97 0.00433
559815.17 4197771.97 0.00526
559865.17 4197771.97 0.00603
559915.17 4197771.97 0.00647
559965.17 4197771.97 0.00645
560015.17 4197771.97 0.00572
560065.17 4197771.97 0.00455
560115.17 4197771.97 0.00339
560165.17 4197771.97 0.00255
560215.17 4197771.97 0.00176
560265.17 4197771.97 0.00126
559565.17 4197821.97 0.00172
559615.17 4197821.97 0.00200
559665.17 4197821.97 0.00250
559715.17 4197821.97 0.00315
559765.17 4197821.97 0.00377
559815.17 4197821.97 0.00433
559865.17 4197821.97 0.00475
559915.17 4197821.97 0.00497
559965.17 4197821.97 0.00494
560015.17 4197821.97 0.00449
560065.17 4197821.97 0.00382
560115.17 4197821.97 0.00298
560165.17 4197821.97 0.00225
560215.17 4197821.97 0.00154
560265.17 4197821.97 0.00105
560000.59 4197301.08 0.01681
560010.59 4197301.08 0.01452
560020.59 4197301.08 0.01264
560030.59 4197301.08 0.01112
560040.59 4197301.08 0.00986
560050.59 4197301.08 0.00882
560060.59 4197301.08 0.00795
560070.59 4197301.08 0.00722
560080.59 4197301.08 0.00658
560090.59 4197301.08 0.00602
560100.59 4197301.08 0.00553
560000.59 4197311.08 0.01853
560010.59 4197311.08 0.01588
560020.59 4197311.08 0.01373
560030.59 4197311.08 0.01199
560040.59 4197311.08 0.01058
560050.59 4197311.08 0.00942
560060.59 4197311.08 0.00845
560070.59 4197311.08 0.00763

560080.59 4197311.08 0.00693

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.00632	560100.59	4197311.08	0.00580
560000.59	4197321.08	0.02028	560010.59	4197321.08	0.01726
560020.59	4197321.08	0.01482	560030.59	4197321.08	0.01287
560040.59	4197321.08	0.01131	560050.59	4197321.08	0.01001
560060.59	4197321.08	0.00894	560070.59	4197321.08	0.00803
560080.59	4197321.08	0.00727	560090.59	4197321.08	0.00661
560100.59	4197321.08	0.00605	560000.59	4197331.08	0.02200
560010.59	4197331.08	0.01861	560020.59	4197331.08	0.01589
560030.59	4197331.08	0.01374	560040.59	4197331.08	0.01201
560050.59	4197331.08	0.01058	560060.59	4197331.08	0.00940
560070.59	4197331.08	0.00841	560080.59	4197331.08	0.00758
560090.59	4197331.08	0.00688	560100.59	4197331.08	0.00628
560000.59	4197341.08	0.02370	560010.59	4197341.08	0.01994
560020.59	4197341.08	0.01693			

560030.59 4197341.08 0.01457
560040.59 4197341.08 0.01267
560050.59 4197341.08 0.01112
560060.59 4197341.08 0.00983
560070.59 4197341.08 0.00876
560080.59 4197341.08 0.00787
560090.59 4197341.08 0.00712
560100.59 4197341.08 0.00647
560000.59 4197351.08 0.02538
560010.59 4197351.08 0.02122
560020.59 4197351.08 0.01792
560030.59 4197351.08 0.01534
560040.59 4197351.08 0.01329
560050.59 4197351.08 0.01161
560060.59 4197351.08 0.01022
560070.59 4197351.08 0.00908
560080.59 4197351.08 0.00813
560090.59 4197351.08 0.00733
560100.59 4197351.08 0.00665
560000.59 4197361.08 0.02699
560010.59 4197361.08 0.02241
560020.59 4197361.08 0.01883
560030.59 4197361.08 0.01604
560040.59 4197361.08 0.01384
560050.59 4197361.08 0.01204
560060.59 4197361.08 0.01057
560070.59 4197361.08 0.00936
560080.59 4197361.08 0.00836
560090.59 4197361.08 0.00752
560100.59 4197361.08 0.00681
560000.59 4197371.08 0.02850
560010.59 4197371.08 0.02351
560020.59 4197371.08 0.01966
560030.59 4197371.08 0.01667
560040.59 4197371.08 0.01431
560050.59 4197371.08 0.01241
560060.59 4197371.08 0.01086
560070.59 4197371.08 0.00959
560080.59 4197371.08 0.00855
560090.59 4197371.08 0.00768
560100.59 4197371.08 0.00696
560000.59 4197381.08 0.02984
560010.59 4197381.08 0.02450
560020.59 4197381.08 0.02038
560030.59 4197381.08 0.01720
560040.59 4197381.08 0.01471
560050.59 4197381.08 0.01273
560060.59 4197381.08 0.01111
560070.59 4197381.08 0.00979
560080.59 4197381.08 0.00871
560090.59 4197381.08 0.00783
560100.59 4197381.08 0.00708

560000.59 4197391.08 0.03095

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.02531	560020.59	4197391.08	0.02098
560030.59	4197391.08	0.01766	560040.59	4197391.08	0.01506
560050.59	4197391.08	0.01300	560060.59	4197391.08	0.01133
560070.59	4197391.08	0.00998	560080.59	4197391.08	0.00887
560090.59	4197391.08	0.00796	560100.59	4197391.08	0.00719
560000.59	4197401.08	0.03179	560010.59	4197401.08	0.02591
560020.59	4197401.08	0.02144	560030.59	4197401.08	0.01801
560040.59	4197401.08	0.01534	560050.59	4197401.08	0.01323
560060.59	4197401.08	0.01153	560070.59	4197401.08	0.01015
560080.59	4197401.08	0.00901	560090.59	4197401.08	0.00807
560100.59	4197401.08	0.00730	560000.59	4197411.08	0.03241
560010.59	4197411.08	0.02636	560020.59	4197411.08	0.02180
560030.59	4197411.08	0.01831	560040.59	4197411.08	0.01558
560050.59	4197411.08	0.01342			

560060.59 4197411.08 0.01169
560070.59 4197411.08 0.01028
560080.59 4197411.08 0.00913
560090.59 4197411.08 0.00819
560100.59 4197411.08 0.00741
560000.59 4197421.08 0.03291
560010.59 4197421.08 0.02678
560020.59 4197421.08 0.02213
560030.59 4197421.08 0.01858
560040.59 4197421.08 0.01581
560050.59 4197421.08 0.01361
560060.59 4197421.08 0.01184
560070.59 4197421.08 0.01042
560080.59 4197421.08 0.00926
560090.59 4197421.08 0.00831
560100.59 4197421.08 0.00752
560000.59 4197431.08 0.03344
560010.59 4197431.08 0.02724
560020.59 4197431.08 0.02250
560030.59 4197431.08 0.01888
560040.59 4197431.08 0.01605
560050.59 4197431.08 0.01380
560060.59 4197431.08 0.01200
560070.59 4197431.08 0.01057
560080.59 4197431.08 0.00939
560090.59 4197431.08 0.00844
560100.59 4197431.08 0.00760
560000.59 4197441.08 0.03400
560010.59 4197441.08 0.02769
560020.59 4197441.08 0.02287
560030.59 4197441.08 0.01919
560040.59 4197441.08 0.01630
560050.59 4197441.08 0.01399
560060.59 4197441.08 0.01217
560070.59 4197441.08 0.01071
560080.59 4197441.08 0.00954
560090.59 4197441.08 0.00856
560100.59 4197441.08 0.00767
560000.59 4197451.08 0.03450
560010.59 4197451.08 0.02808
560020.59 4197451.08 0.02318
560030.59 4197451.08 0.01944
560040.59 4197451.08 0.01650
560050.59 4197451.08 0.01417
560060.59 4197451.08 0.01234
560070.59 4197451.08 0.01086
560080.59 4197451.08 0.00968
560090.59 4197451.08 0.00866
560100.59 4197451.08 0.00777
560000.59 4197461.08 0.03485
560010.59 4197461.08 0.02834
560020.59 4197461.08 0.02336

560030.59 4197461.08 0.01960

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_ON ***
INCLUDING SOURCE(S):
PAREA3 , PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.01665	560050.59	4197461.08	0.01433
560060.59	4197461.08	0.01248	560070.59	4197461.08	0.01101
560080.59	4197461.08	0.00980	560090.59	4197461.08	0.00875
560100.59	4197461.08	0.00786	560000.59	4197471.08	0.03501
560010.59	4197471.08	0.02845	560020.59	4197471.08	0.02344
560030.59	4197471.08	0.01969	560040.59	4197471.08	0.01677
560050.59	4197471.08	0.01445	560060.59	4197471.08	0.01260
560070.59	4197471.08	0.01113	560080.59	4197471.08	0.00986
560090.59	4197471.08	0.00880	560100.59	4197471.08	0.00791
560000.59	4197481.08	0.03499	560010.59	4197481.08	0.02842
560020.59	4197481.08	0.02345	560030.59	4197481.08	0.01974
560040.59	4197481.08	0.01684	560050.59	4197481.08	0.01451
560060.59	4197481.08	0.01268	560070.59	4197481.08	0.01116
560080.59	4197481.08	0.00986			

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560090.59    4197481.08        0.00880
         560100.59    4197481.08        0.00792
560000.59    4197491.08        0.03478
         560010.59    4197491.08        0.02827
560020.59    4197491.08        0.02341
         560030.59    4197491.08        0.01974
560040.59    4197491.08        0.01683
         560050.59    4197491.08        0.01453
560060.59    4197491.08        0.01269
         560070.59    4197491.08        0.01111
560080.59    4197491.08        0.00981
         560090.59    4197491.08        0.00877
560100.59    4197491.08        0.00790
         560000.59    4197501.08        0.03439
560010.59    4197501.08        0.02804
         560020.59    4197501.08        0.02327
560030.59    4197501.08        0.01961
         560040.59    4197501.08        0.01672
560050.59    4197501.08        0.01446
         560060.59    4197501.08        0.01259
560070.59    4197501.08        0.01100
         560080.59    4197501.08        0.00973
560090.59    4197501.08        0.00869
         560100.59    4197501.08        0.00783
559954.71    4197549.49        0.06219
         559973.36    4197549.21        0.05051
559980.26    4197544.34        0.04377
         559978.21    4197528.15        0.04969
559969.70    4197512.85        0.06412
         559971.05    4197308.01        0.02882
559970.20    4197308.43        0.02949
         559912.41    4197414.97        0.05849
559912.33    4197415.37        0.05837
         559959.36    4197429.45        0.07633
559960.20    4197441.75        0.07904
         559926.03    4197543.45        0.05393
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*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197121.97	0.00052	559615.17	4197121.97	0.00059
559665.17	4197121.97	0.00067	559715.17	4197121.97	0.00077
559765.17	4197121.97	0.00089	559815.17	4197121.97	0.00103
559865.17	4197121.97	0.00119	559915.17	4197121.97	0.00137
559965.17	4197121.97	0.00139	560015.17	4197121.97	0.00127
560065.17	4197121.97	0.00100	560115.17	4197121.97	0.00075
560165.17	4197121.97	0.00058	560215.17	4197121.97	0.00046
560265.17	4197121.97	0.00038	559565.17	4197171.97	0.00056
559615.17	4197171.97	0.00065	559665.17	4197171.97	0.00075
559715.17	4197171.97	0.00088	559765.17	4197171.97	0.00105
559815.17	4197171.97	0.00127	559865.17	4197171.97	0.00156
559915.17	4197171.97	0.00194	559965.17	4197171.97	0.00201

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         560015.17    4197171.97        0.00186
560065.17    4197171.97        0.00128
         560115.17    4197171.97        0.00090
560165.17    4197171.97        0.00068
         560215.17    4197171.97        0.00054
560265.17    4197171.97        0.00044
         559565.17    4197221.97        0.00061
559615.17    4197221.97        0.00070
         559665.17    4197221.97        0.00083
559715.17    4197221.97        0.00099
         559765.17    4197221.97        0.00122
559815.17    4197221.97        0.00155
         559865.17    4197221.97        0.00207
559915.17    4197221.97        0.00302
         559965.17    4197221.97        0.00424
560015.17    4197221.97        0.00319
         560065.17    4197221.97        0.00172
560115.17    4197221.97        0.00113
         560165.17    4197221.97        0.00083
560215.17    4197221.97        0.00063
         560265.17    4197221.97        0.00049
559565.17    4197271.97        0.00064
         559615.17    4197271.97        0.00075
559665.17    4197271.97        0.00088
         559715.17    4197271.97        0.00107
559765.17    4197271.97        0.00134
         559815.17    4197271.97        0.00176
559865.17    4197271.97        0.00253
         559915.17    4197271.97        0.00444
559965.17    4197271.97        0.01313
         560015.17    4197271.97        0.00574
560065.17    4197271.97        0.00234
         560115.17    4197271.97        0.00139
560165.17    4197271.97        0.00094
         560215.17    4197271.97        0.00068
560265.17    4197271.97        0.00053
         559565.17    4197321.97        0.00068
559615.17    4197321.97        0.00080
         559665.17    4197321.97        0.00094
559715.17    4197321.97        0.00114
         559765.17    4197321.97        0.00143
559815.17    4197321.97        0.00186
         559865.17    4197321.97        0.00267
559915.17    4197321.97        0.00416
         560015.17    4197321.97        0.00731
560065.17    4197321.97        0.00267
         560115.17    4197321.97        0.00150
560165.17    4197321.97        0.00099
         560215.17    4197321.97        0.00071
560265.17    4197321.97        0.00055
         559565.17    4197371.97        0.00072
559615.17    4197371.97        0.00085
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         559665.17    4197371.97        0.00101
559715.17    4197371.97        0.00124
         559765.17    4197371.97        0.00154
559815.17    4197371.97        0.00200
```

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559865.17	4197371.97	0.00279	559915.17	4197371.97	0.00398
560015.17	4197371.97	0.00637	560065.17	4197371.97	0.00268
560115.17	4197371.97	0.00155	560165.17	4197371.97	0.00102
560215.17	4197371.97	0.00075	560265.17	4197371.97	0.00056
559565.17	4197421.97	0.00077	559615.17	4197421.97	0.00091
559665.17	4197421.97	0.00111	559715.17	4197421.97	0.00137
559765.17	4197421.97	0.00175	559815.17	4197421.97	0.00232
559865.17	4197421.97	0.00320	559915.17	4197421.97	0.00476
560015.17	4197421.97	0.00500	560065.17	4197421.97	0.00274
560115.17	4197421.97	0.00164	560165.17	4197421.97	0.00112
560215.17	4197421.97	0.00083	560265.17	4197421.97	0.00064
559565.17	4197471.97	0.00080	559615.17	4197471.97	0.00097

559665.17 4197471.97 0.00120
559715.17 4197471.97 0.00154
559765.17 4197471.97 0.00204
559815.17 4197471.97 0.00282
559865.17 4197471.97 0.00402
559915.17 4197471.97 0.00574
560015.17 4197471.97 0.00489
560065.17 4197471.97 0.00291
560115.17 4197471.97 0.00181
560165.17 4197471.97 0.00126
560215.17 4197471.97 0.00093
560265.17 4197471.97 0.00073
559565.17 4197521.97 0.00082
559615.17 4197521.97 0.00101
559665.17 4197521.97 0.00127
559715.17 4197521.97 0.00167
559765.17 4197521.97 0.00229
559815.17 4197521.97 0.00329
559865.17 4197521.97 0.00523
559915.17 4197521.97 0.00982
560015.17 4197521.97 0.00696
560065.17 4197521.97 0.00340
560115.17 4197521.97 0.00206
560165.17 4197521.97 0.00138
560215.17 4197521.97 0.00103
560265.17 4197521.97 0.00079
559565.17 4197571.97 0.00081
559615.17 4197571.97 0.00102
559665.17 4197571.97 0.00130
559715.17 4197571.97 0.00174
559765.17 4197571.97 0.00239
559815.17 4197571.97 0.00354
559865.17 4197571.97 0.00578
559915.17 4197571.97 0.01263
559965.17 4197571.97 0.02592
560015.17 4197571.97 0.00978
560065.17 4197571.97 0.00387
560115.17 4197571.97 0.00222
560165.17 4197571.97 0.00144
560215.17 4197571.97 0.00104
560265.17 4197571.97 0.00080
559565.17 4197621.97 0.00079
559615.17 4197621.97 0.00099
559665.17 4197621.97 0.00129
559715.17 4197621.97 0.00174
559765.17 4197621.97 0.00238
559815.17 4197621.97 0.00379
559865.17 4197621.97 0.00655
559915.17 4197621.97 0.01352
559965.17 4197621.97 0.02498
560015.17 4197621.97 0.01034
560065.17 4197621.97 0.00393

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         560115.17    4197621.97        0.00219
560165.17    4197621.97        0.00145
         560215.17    4197621.97        0.00101
560265.17    4197621.97        0.00075
```

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
559565.17	4197671.97	0.00074	559615.17	4197671.97	0.00094
559665.17	4197671.97	0.00123	559715.17	4197671.97	0.00153
559765.17	4197671.97	0.00223	559815.17	4197671.97	0.00403
559865.17	4197671.97	0.00776	559915.17	4197671.97	0.01843
559965.17	4197671.97	0.01939	560015.17	4197671.97	0.00783
560065.17	4197671.97	0.00361	560115.17	4197671.97	0.00209
560165.17	4197671.97	0.00139	560215.17	4197671.97	0.00097
560265.17	4197671.97	0.00069	559565.17	4197721.97	0.00069
559615.17	4197721.97	0.00087	559665.17	4197721.97	0.00112
559715.17	4197721.97	0.00138	559765.17	4197721.97	0.00229
559815.17	4197721.97	0.00394	559865.17	4197721.97	0.00912
559915.17	4197721.97	0.02165	559965.17	4197721.97	0.01174

```
         560015.17    4197721.97        0.00567
560065.17    4197721.97        0.00311
         560115.17    4197721.97        0.00189
560165.17    4197721.97        0.00124
         560215.17    4197721.97        0.00087
560265.17    4197721.97        0.00058
         559565.17    4197771.97        0.00064
559615.17    4197771.97        0.00080
         559665.17    4197771.97        0.00103
559715.17    4197771.97        0.00139
         559765.17    4197771.97        0.00203
559815.17    4197771.97        0.00338
         559865.17    4197771.97        0.00772
559915.17    4197771.97        0.01378
         559965.17    4197771.97        0.00718
560015.17    4197771.97        0.00421
         560065.17    4197771.97        0.00259
560115.17    4197771.97        0.00159
         560165.17    4197771.97        0.00111
560215.17    4197771.97        0.00071
         560265.17    4197771.97        0.00047
559565.17    4197821.97        0.00060
         559615.17    4197821.97        0.00069
559665.17    4197821.97        0.00089
         559715.17    4197821.97        0.00130
559765.17    4197821.97        0.00187
         559815.17    4197821.97        0.00298
559865.17    4197821.97        0.00517
         559915.17    4197821.97        0.00642
559965.17    4197821.97        0.00471
         560015.17    4197821.97        0.00316
560065.17    4197821.97        0.00207
         560115.17    4197821.97        0.00141
560165.17    4197821.97        0.00099
         560215.17    4197821.97        0.00064
560265.17    4197821.97        0.00041
         560000.59    4197301.08        0.01054
560010.59    4197301.08        0.00784
         560020.59    4197301.08        0.00592
560030.59    4197301.08        0.00466
         560040.59    4197301.08        0.00381
560050.59    4197301.08        0.00320
         560060.59    4197301.08        0.00275
560070.59    4197301.08        0.00240
         560080.59    4197301.08        0.00212
560090.59    4197301.08        0.00189
         560100.59    4197301.08        0.00170
560000.59    4197311.08        0.01110
         560010.59    4197311.08        0.00818
560020.59    4197311.08        0.00615
         560030.59    4197311.08        0.00482
560040.59    4197311.08        0.00392
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         560050.59    4197311.08        0.00329
560060.59    4197311.08        0.00281
         560070.59    4197311.08        0.00245
560080.59    4197311.08        0.00216
```

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560090.59	4197311.08	0.00192	560100.59	4197311.08	0.00173
560000.59	4197321.08	0.01132	560010.59	4197321.08	0.00836
560020.59	4197321.08	0.00629	560030.59	4197321.08	0.00493
560040.59	4197321.08	0.00401	560050.59	4197321.08	0.00335
560060.59	4197321.08	0.00286	560070.59	4197321.08	0.00248
560080.59	4197321.08	0.00218	560090.59	4197321.08	0.00194
560100.59	4197321.08	0.00174	560000.59	4197331.08	0.01120
560010.59	4197331.08	0.00836	560020.59	4197331.08	0.00633
560030.59	4197331.08	0.00497	560040.59	4197331.08	0.00404
560050.59	4197331.08	0.00337	560060.59	4197331.08	0.00287
560070.59	4197331.08	0.00249	560080.59	4197331.08	0.00219
560090.59	4197331.08	0.00195	560100.59	4197331.08	0.00175

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         560000.59    4197341.08        0.01075
560010.59    4197341.08        0.00817
         560020.59    4197341.08        0.00625
560030.59    4197341.08        0.00494
         560040.59    4197341.08        0.00402
560050.59    4197341.08        0.00337
         560060.59    4197341.08        0.00287
560070.59    4197341.08        0.00249
         560080.59    4197341.08        0.00219
560090.59    4197341.08        0.00195
         560100.59    4197341.08        0.00175
560000.59    4197351.08        0.01017
         560010.59    4197351.08        0.00782
560020.59    4197351.08        0.00606
         560030.59    4197351.08        0.00484
560040.59    4197351.08        0.00398
         560050.59    4197351.08        0.00334
560060.59    4197351.08        0.00286
         560070.59    4197351.08        0.00249
560080.59    4197351.08        0.00220
         560090.59    4197351.08        0.00196
560100.59    4197351.08        0.00176
         560000.59    4197361.08        0.00975
560010.59    4197361.08        0.00747
         560020.59    4197361.08        0.00586
560030.59    4197361.08        0.00473
         560040.59    4197361.08        0.00393
560050.59    4197361.08        0.00332
         560060.59    4197361.08        0.00286
560070.59    4197361.08        0.00249
         560080.59    4197361.08        0.00221
560090.59    4197361.08        0.00197
         560100.59    4197361.08        0.00177
560000.59    4197371.08        0.00912
         560010.59    4197371.08        0.00712
560020.59    4197371.08        0.00567
         560030.59    4197371.08        0.00464
560040.59    4197371.08        0.00388
         560050.59    4197371.08        0.00330
560060.59    4197371.08        0.00285
         560070.59    4197371.08        0.00250
560080.59    4197371.08        0.00221
         560090.59    4197371.08        0.00198
560100.59    4197371.08        0.00178
         560000.59    4197381.08        0.00831
560010.59    4197381.08        0.00673
         560020.59    4197381.08        0.00549
560030.59    4197381.08        0.00455
         560040.59    4197381.08        0.00384
560050.59    4197381.08        0.00329
         560060.59    4197381.08        0.00286
560070.59    4197381.08        0.00251
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          560080.59    4197381.08        0.00223
560090.59    4197381.08        0.00200
          560100.59    4197381.08        0.00180
560000.59    4197391.08        0.00750
```

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560010.59	4197391.08	0.00631	560020.59	4197391.08	0.00528
560030.59	4197391.08	0.00446	560040.59	4197391.08	0.00381
560050.59	4197391.08	0.00329	560060.59	4197391.08	0.00287
560070.59	4197391.08	0.00253	560080.59	4197391.08	0.00225
560090.59	4197391.08	0.00201	560100.59	4197391.08	0.00182
560000.59	4197401.08	0.00678	560010.59	4197401.08	0.00590
560020.59	4197401.08	0.00508	560030.59	4197401.08	0.00436
560040.59	4197401.08	0.00377	560050.59	4197401.08	0.00328
560060.59	4197401.08	0.00288	560070.59	4197401.08	0.00255
560080.59	4197401.08	0.00227	560090.59	4197401.08	0.00203
560100.59	4197401.08	0.00184	560000.59	4197411.08	0.00620
560010.59	4197411.08	0.00554	560020.59	4197411.08	0.00488

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         560030.59    4197411.08        0.00427
560040.59    4197411.08        0.00373
         560050.59    4197411.08        0.00327
560060.59    4197411.08        0.00289
         560070.59    4197411.08        0.00256
560080.59    4197411.08        0.00229
         560090.59    4197411.08        0.00205
560100.59    4197411.08        0.00186
         560000.59    4197421.08        0.00578
560010.59    4197421.08        0.00527
         560020.59    4197421.08        0.00472
560030.59    4197421.08        0.00419
         560040.59    4197421.08        0.00370
560050.59    4197421.08        0.00327
         560060.59    4197421.08        0.00289
560070.59    4197421.08        0.00257
         560080.59    4197421.08        0.00230
560090.59    4197421.08        0.00208
         560100.59    4197421.08        0.00189
560000.59    4197431.08        0.00549
         560010.59    4197431.08        0.00507
560020.59    4197431.08        0.00460
         560030.59    4197431.08        0.00413
560040.59    4197431.08        0.00368
         560050.59    4197431.08        0.00327
560060.59    4197431.08        0.00290
         560070.59    4197431.08        0.00259
560080.59    4197431.08        0.00233
         560090.59    4197431.08        0.00211
560100.59    4197431.08        0.00191
         560000.59    4197441.08        0.00532
560010.59    4197441.08        0.00496
         560020.59    4197441.08        0.00454
560030.59    4197441.08        0.00410
         560040.59    4197441.08        0.00368
560050.59    4197441.08        0.00328
         560060.59    4197441.08        0.00292
560070.59    4197441.08        0.00262
         560080.59    4197441.08        0.00236
560090.59    4197441.08        0.00213
         560100.59    4197441.08        0.00193
560000.59    4197451.08        0.00527
         560010.59    4197451.08        0.00492
560020.59    4197451.08        0.00452
         560030.59    4197451.08        0.00410
560040.59    4197451.08        0.00369
         560050.59    4197451.08        0.00330
560060.59    4197451.08        0.00295
         560070.59    4197451.08        0.00265
560080.59    4197451.08        0.00239
         560090.59    4197451.08        0.00216
560100.59    4197451.08        0.00196
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         560000.59    4197461.08        0.00533
560010.59    4197461.08        0.00495
         560020.59    4197461.08        0.00455
560030.59    4197461.08        0.00413
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: Y2_OFF ***
INCLUDING SOURCE(S):
A0000016 , A0000017 , A0000018 , A0000019 , A0000020 ,
A0000021 , A0000022 , A0000023 , A0000024 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
560040.59	4197461.08	0.00372	560050.59	4197461.08	0.00334
560060.59	4197461.08	0.00299	560070.59	4197461.08	0.00269
560080.59	4197461.08	0.00243	560090.59	4197461.08	0.00220
560100.59	4197461.08	0.00200	560000.59	4197471.08	0.00549
560010.59	4197471.08	0.00508	560020.59	4197471.08	0.00464
560030.59	4197471.08	0.00421	560040.59	4197471.08	0.00379
560050.59	4197471.08	0.00340	560060.59	4197471.08	0.00305
560070.59	4197471.08	0.00275	560080.59	4197471.08	0.00248
560090.59	4197471.08	0.00224	560100.59	4197471.08	0.00204
560000.59	4197481.08	0.00577	560010.59	4197481.08	0.00529
560020.59	4197481.08	0.00480	560030.59	4197481.08	0.00433
560040.59	4197481.08	0.00389	560050.59	4197481.08	0.00348

```
         560060.59    4197481.08        0.00313
560070.59    4197481.08        0.00281
         560080.59    4197481.08        0.00253
560090.59    4197481.08        0.00229
         560100.59    4197481.08        0.00209
560000.59    4197491.08        0.00619
         560010.59    4197491.08        0.00561
560020.59    4197491.08        0.00504
         560030.59    4197491.08        0.00452
560040.59    4197491.08        0.00403
         560050.59    4197491.08        0.00359
560060.59    4197491.08        0.00322
         560070.59    4197491.08        0.00288
560080.59    4197491.08        0.00259
         560090.59    4197491.08        0.00235
560100.59    4197491.08        0.00215
         560000.59    4197501.08        0.00679
560010.59    4197501.08        0.00606
         560020.59    4197501.08        0.00538
560030.59    4197501.08        0.00475
         560040.59    4197501.08        0.00420
560050.59    4197501.08        0.00373
         560060.59    4197501.08        0.00332
560070.59    4197501.08        0.00296
         560080.59    4197501.08        0.00267
560090.59    4197501.08        0.00242
         560100.59    4197501.08        0.00221
559954.71    4197549.49        0.01995
         559973.36    4197549.21        0.02058
559980.26    4197544.34        0.01796
         559978.21    4197528.15        0.01306
559969.70    4197512.85        0.01020
         559971.05    4197308.01        0.02088
559970.20    4197308.43        0.02133
         559912.41    4197414.97        0.00459
559912.33    4197415.37        0.00459
         559959.36    4197429.45        0.00602
559960.20    4197441.75        0.00588
         559926.03    4197543.45        0.01581
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*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
Y1_ALL	1ST HIGHEST VALUE IS	0.09355 AT (559960.20, 4197441.75, 15.15, 306.41, 1.50)	DC	
	2ND HIGHEST VALUE IS	0.09071 AT (559959.36, 4197429.45, 15.09, 306.41, 1.50)	DC	
	3RD HIGHEST VALUE IS	0.09000 AT (559954.71, 4197549.49, 15.67, 306.41, 1.50)	DC	
	4TH HIGHEST VALUE IS	0.08191 AT (559965.17, 4197571.97, 16.24, 306.41, 1.50)	DC	
	5TH HIGHEST VALUE IS	0.08169 AT (559969.70, 4197512.85, 15.95, 306.41, 1.50)	DC	
	6TH HIGHEST VALUE IS	0.07777 AT (559973.36, 4197549.21, 16.29, 306.41, 1.50)	DC	
	7TH HIGHEST VALUE IS	0.07644 AT (559926.03, 4197543.45, 15.36, 306.41, 1.50)	DC	
	8TH HIGHEST VALUE IS	0.07287 AT (559915.17, 4197421.97, 14.73, 306.41, 1.50)	DC	
	9TH HIGHEST VALUE IS	0.06949 AT (559912.41, 4197414.97, 15.28, 306.41, 1.50)	DC	
	10TH HIGHEST VALUE IS	0.06936 AT (559912.33, 4197415.37, 15.26, 306.41, 1.50)	DC	
Y1_ON	1ST HIGHEST VALUE IS	0.08728 AT (559960.20, 4197441.75, 15.15, 306.41, 1.50)	DC	
	2ND HIGHEST VALUE IS	0.08428 AT (559959.36, 4197429.45, 15.09, 306.41, 1.50)	DC	
	3RD HIGHEST VALUE IS	0.07081 AT (559969.70, 4197512.85, 15.95, 306.41, 1.50)	DC	
	4TH HIGHEST VALUE IS	0.06867 AT (559954.71,		

```
4197549.49,    15.67,   306.41,    1.50)  DC
          5TH HIGHEST VALUE IS      0.06779 AT (  559915.17,
4197421.97,    14.73,   306.41,    1.50)  DC
          6TH HIGHEST VALUE IS      0.06459 AT (  559912.41,
4197414.97,    15.28,   306.41,    1.50)  DC
          7TH HIGHEST VALUE IS      0.06445 AT (  559912.33,
4197415.37,    15.26,   306.41,    1.50)  DC
          8TH HIGHEST VALUE IS      0.06302 AT (  559915.17,
4197471.97,    15.23,   306.41,    1.50)  DC
          9TH HIGHEST VALUE IS      0.05955 AT (  559926.03,
4197543.45,    15.36,   306.41,    1.50)  DC
         10TH HIGHEST VALUE IS      0.05807 AT (  559915.17,
4197521.97,    15.78,   306.41,    1.50)  DC

Y1_OFF    1ST HIGHEST VALUE IS      0.02771 AT (  559965.17,
4197571.97,    16.24,   306.41,    1.50)  DC
          2ND HIGHEST VALUE IS      0.02668 AT (  559965.17,
4197621.97,    16.80,   306.41,    1.50)  DC
          3RD HIGHEST VALUE IS      0.02312 AT (  559915.17,
4197721.97,    17.04,   306.41,    1.50)  DC
          4TH HIGHEST VALUE IS      0.02278 AT (  559970.20,
4197308.43,    15.78,   306.41,    1.50)  DC
          5TH HIGHEST VALUE IS      0.02230 AT (  559971.05,
4197308.01,    15.55,   306.41,    1.50)  DC
          6TH HIGHEST VALUE IS      0.02199 AT (  559973.36,
4197549.21,    16.29,   306.41,    1.50)  DC
          7TH HIGHEST VALUE IS      0.02133 AT (  559954.71,
4197549.49,    15.67,   306.41,    1.50)  DC
          8TH HIGHEST VALUE IS      0.02070 AT (  559965.17,
4197671.97,    17.07,   306.41,    1.50)  DC
          9TH HIGHEST VALUE IS      0.01968 AT (  559915.17,
4197671.97,    16.52,   306.41,    1.50)  DC
         10TH HIGHEST VALUE IS      0.01918 AT (  559980.26,
4197544.34,    16.44,   306.41,    1.50)  DC

Y2_ALL    1ST HIGHEST VALUE IS      0.08492 AT (  559960.20,
4197441.75,    15.15,   306.41,    1.50)  DC
          2ND HIGHEST VALUE IS      0.08234 AT (  559959.36,
4197429.45,    15.09,   306.41,    1.50)  DC
          3RD HIGHEST VALUE IS      0.08214 AT (  559954.71,
4197549.49,    15.67,   306.41,    1.50)  DC
          4TH HIGHEST VALUE IS      0.07500 AT (  559965.17,
4197571.97,    16.24,   306.41,    1.50)  DC
          5TH HIGHEST VALUE IS      0.07432 AT (  559969.70,
4197512.85,    15.95,   306.41,    1.50)  DC
          6TH HIGHEST VALUE IS      0.07108 AT (  559973.36,
4197549.21,    16.29,   306.41,    1.50)  DC
          7TH HIGHEST VALUE IS      0.06974 AT (  559926.03,
4197543.45,    15.36,   306.41,    1.50)  DC
          8TH HIGHEST VALUE IS      0.06614 AT (  559915.17,
4197421.97,    14.73,   306.41,    1.50)  DC
          9TH HIGHEST VALUE IS      0.06309 AT (  559912.41,
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```
4197414.97,    15.28,   306.41,    1.50)  DC
         10TH HIGHEST VALUE IS       0.06296 AT (  559912.33,
4197415.37,    15.26,   306.41,    1.50)  DC
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN SigA Data

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
Y2_ON	1ST HIGHEST VALUE IS	0.07904	AT (559960.20, 4197441.75, 15.15, 306.41, 1.50)	DC	
	2ND HIGHEST VALUE IS	0.07633	AT (559959.36, 4197429.45, 15.09, 306.41, 1.50)	DC	
	3RD HIGHEST VALUE IS	0.06412	AT (559969.70, 4197512.85, 15.95, 306.41, 1.50)	DC	
	4TH HIGHEST VALUE IS	0.06219	AT (559954.71, 4197549.49, 15.67, 306.41, 1.50)	DC	
	5TH HIGHEST VALUE IS	0.06139	AT (559915.17, 4197421.97, 14.73, 306.41, 1.50)	DC	
	6TH HIGHEST VALUE IS	0.05849	AT (559912.41, 4197414.97, 15.28, 306.41, 1.50)	DC	
	7TH HIGHEST VALUE IS	0.05837	AT (559912.33, 4197415.37, 15.26, 306.41, 1.50)	DC	
	8TH HIGHEST VALUE IS	0.05707	AT (559915.17, 4197471.97, 15.23, 306.41, 1.50)	DC	
	9TH HIGHEST VALUE IS	0.05393	AT (559926.03, 4197543.45, 15.36, 306.41, 1.50)	DC	
	10TH HIGHEST VALUE IS	0.05259	AT (559915.17, 4197521.97, 15.78, 306.41, 1.50)	DC	
Y2_OFF	1ST HIGHEST VALUE IS	0.02592	AT (559965.17, 4197571.97, 16.24, 306.41, 1.50)	DC	
	2ND HIGHEST VALUE IS	0.02498	AT (559965.17, 4197621.97, 16.80, 306.41, 1.50)	DC	
	3RD HIGHEST VALUE IS	0.02165	AT (559915.17, 4197721.97, 17.04, 306.41, 1.50)	DC	
	4TH HIGHEST VALUE IS	0.02133	AT (559970.20,		

```
4197308.43,    15.78,   306.41,    1.50)  DC
          5TH HIGHEST VALUE IS       0.02088 AT (  559971.05,
4197308.01,    15.55,   306.41,    1.50)  DC
          6TH HIGHEST VALUE IS       0.02058 AT (  559973.36,
4197549.21,    16.29,   306.41,    1.50)  DC
          7TH HIGHEST VALUE IS       0.01995 AT (  559954.71,
4197549.49,    15.67,   306.41,    1.50)  DC
          8TH HIGHEST VALUE IS       0.01939 AT (  559965.17,
4197671.97,    17.07,   306.41,    1.50)  DC
          9TH HIGHEST VALUE IS       0.01843 AT (  559915.17,
4197671.97,    16.52,   306.41,    1.50)  DC
         10TH HIGHEST VALUE IS       0.01796 AT (  559980.26,
4197544.34,    16.44,   306.41,    1.50)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\El
Cerrito_EastshoreBlvd_T4\El Cerrito_EastshoreBlvd_T4.isc ***
01/25/23
 *** AERMET - VERSION  18081 ***   ***
***        14:40:12

PAGE  52
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  SigA
Data

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of         2128 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of            2 Calm Hours Identified

 A Total of         2126 Missing Hours Identified (  4.85
Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     244       PFLCNV: Turbulence data is being used w/o
ADJ_U* option       SigA Data
 MX W403       1       PFLCNV: Turbulence data is being used w/o
ADJ_U* option       SigA Data

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

Attachment 6

Health Risk Assessment Calculations and DPM Concentration Figures

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Attachment 6: Construction Health Risk Assessment Calculations (DPM)
Eastshore Blvd Apartments Project HRA
Tier II Health Risk Calculations - Residential

METHODOLOGY

Dose (Air) = Cair x DBR x A x EF x CF

Where:
- Cair: Chemical concentration in air (µg/m^3)
- DBR: Daily breathing rate (L/kg-day)
- A: Inhalation adsorption factor (unitless)
- EF: Exposure Frequency, days at home / days in year (unitless)
- CF: 10^-6 Conversion Factor (m^3/L and mg/µg)

Cancer Risk (per million) = Dose (Air) x CPF x ASF x (ED/AT) x FAH x 1,000,000

Where:
- Dose: Dose of chemical in the air (µg/m3)
- CPF: Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$
- ASF: Age Sensitivity Factor
- ED: Exposure Duration (years)
- AT: Averaging Time for lifetime cancer risks
- FAH: Fraction of daily time spent at home / school

Risk Parameter Values by Age Bin

Variable	Residential Age Bin				
	3rd Trimester	0-2 Years	2-16 Years	16-30 Years	16-70 Years
DBR	361	1090	572	261	233
A	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96
CF	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
CPF	1.1	1.1	1.1	1.1	1.1
ASF	10	10	3	1	1
ED	0.25	2	14	14	54
AT	70	70	70	70	70
FAH	0.85	0.85	0.72	0.73	0.73

AERMOD Modeled DPM Concentrations (PMI/MEIR)

	PMI			MEIR		
	Conc.	X	Y	Conc.	X	Y
Year 1	0.42756	559960.20	4197441.75	0.10802	560030.59	4197451.08
Year 2	0.41177	559960.20	4197441.75	0.10395	560030.59	4197451.08

Risk Assessment Year 1 MEIR

Scenario	AERMOD DPM Conc.	Chronic Hazard Quotient
Year 1	0.10802	0.021604
Year 2	0.10395	0.02079

Year 1 Dose @ MEIR

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.10802	361	1	0.96	1.00E-06	=	3.74E-05
0-2 Years	0.10802	1090	1	0.96	1.00E-06	=	1.13E-04
2-16 Years	0.10802	572	1	0.96	1.00E-06	=	5.92E-05
16-30 Years	0.10802	261	1	0.96	1.00E-06	=	2.70E-05
30-70 Years	0.10802	233	1	0.96	1.00E-06	=	2.41E-05

Year 1 Excess Risk at MEIR

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	3.74E-05	1.1	10	0.25	70	0.85	1,000,000	1.2
0-2 Years	1.13E-04	1.1	10	1.00	70	0.85	1,000,000	15.1
0-2 Years	1.13E-04	1.1	10	1.00	70	0.85	1,000,000	15.1
2-16 Years	5.92E-05	1.1	3	1.00	70	0.72	1,000,000	2.0
16-30 Years	2.70E-05	1.1	1	1.00	70	0.73	1,000,000	0.3
30-70 Years	2.41E-05	1.1	1	1.00	70	0.73	1,000,000	0.3

Year 2 Dose @ MEIR

Age Group	Cair x	BR	A	EF	CF		Dose
0-2 Years	0.10395	1090	1	0.96	1.00E-06	=	1.09E-04
2-16 Years	0.10395	572	1	0.96	1.00E-06	=	5.70E-05
16-30 Years	0.10395	261	1	0.96	1.00E-06	=	2.60E-05
30-70 Years	0.10395	233	1	0.96	1.00E-06	=	2.32E-05

Year 2 Excess Risk at MEIR

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
0-2 Years	1.09E-04	1.1	10	1.00	70	0.85	1,000,000	14.5
2-16 Years	5.70E-05	1.1	3	1.00	70	0.72	1,000,000	1.9
16-30 Years	2.60E-05	1.1	1	1.00	70	0.73	1,000,000	0.3
30-70 Years	2.32E-05	1.1	1	1.00	70	0.73	1,000,000	0.3

Total Excess Risk at MEIR (Cumulative, Based on Age at Start of Construction)

	Infant	Child < 2	Child 2<x<16	Adult 16<x<30	Adult 30<x<70
Year 1	16.3	15.1	2.0	0.3	0.3
Year 2	14.5	14.5	1.9	0.3	0.3
Total	30.8	29.6	3.9	0.6	0.5

Attachment 6: Construction Health Risk Assessment Calculations (DPM)
Eastshore Blvd Apartments Project HRA
Tier IV Final Health Risk Calculations - Residential

METHODOLOGY

Dose (Air) = Cair x DBR x A x EF x CF

Where:
- Cair: Chemical concentration in air (µg/m^3)
- DBR: Daily breathing rate (L/kg-day)
- A: Inhalation adsorption factor (unitless)
- EF: Exposure Frequency, days at home / days in year (unitless)
- CF: 10^{-6} Conversion Factor (m^3/L and mg/µg)

Cancer Risk (per million) = Dose (Air) x CPF x ASF x (ED/AT) x FAH x 1,000,000

Where:
- Dose: Dose of chemical in the air (µg/m3)
- CPF: Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$
- ASF: Age Sensitivity Factor
- ED: Exposure Duration (years)
- AT: Averaging Time for lifetime cancer risks
- FAH: Fraction of daily time spent at home / school

Risk Parameter Values by Age Bin

Variable	Residential Age Bin				
	3rd Trimester	0-2 Years	2-16 Years	16-30 Years	16-70 Years
DBR	361	1090	572	261	233
A	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96
CF	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
CPF	1.1	1.1	1.1	1.1	1.1
ASF	10	10	3	1	1
ED	0.25	2	14	14	54
AT	70	70	70	70	70
FAH	0.85	0.85	0.72	0.73	0.73

AERMOD Modeled DPM Concentrations (PMI/MEIR)

	PMI			MEIR		
	Conc.	X	Y	Conc.	X	Y
Year 1	0.09355	559960.20	4197441.75	0.02585	560030.59	4197451.08
Year 2	0.08492	559960.20	4197441.75	0.02355	560030.59	4197451.08

Risk Assessment Year 1 MEIR

Scenario	AERMOD DPM Conc.	Chronic Hazard Quotient
Year 1	0.02585	0.00517
Year 2	0.02355	0.00471

Year 1 Dose @ MEIR

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.02585	361	1	0.96	1.00E-06	=	8.95E-06
0-2 Years	0.02585	1090	1	0.96	1.00E-06	=	2.70E-05
2-16 Years	0.02585	572	1	0.96	1.00E-06	=	1.42E-05
16-30 Years	0.02585	261	1	0.96	1.00E-06	=	6.47E-06
30-70 Years	0.02585	233	1	0.96	1.00E-06	=	5.78E-06

Year 1 Excess Risk at MEIR

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	8.95E-06	1.1	10	0.25	70	0.85	1,000,000	0.3
0-2 Years	2.70E-05	1.1	10	1.00	70	0.85	1,000,000	3.6
0-2 Years	2.70E-05	1.1	10	1.00	70	0.85	1,000,000	3.6
2-16 Years	1.42E-05	1.1	3	1.00	70	0.72	1,000,000	0.5
16-30 Years	6.47E-06	1.1	1	1.00	70	0.73	1,000,000	0.1
30-70 Years	5.78E-06	1.1	1	1.00	70	0.73	1,000,000	0.1

Year 2 Dose @ MEIR

Age Group	Cair x	BR	A	EF	CF		Dose
0-2 Years	0.02355	1090	1	0.96	1.00E-06	=	2.46E-05
2-16 Years	0.02355	572	1	0.96	1.00E-06	=	1.29E-05
16-30 Years	0.02355	261	1	0.96	1.00E-06	=	5.89E-06
30-70 Years	0.02355	233	1	0.96	1.00E-06	=	5.26E-06

Year 2 Excess Risk at MEIR

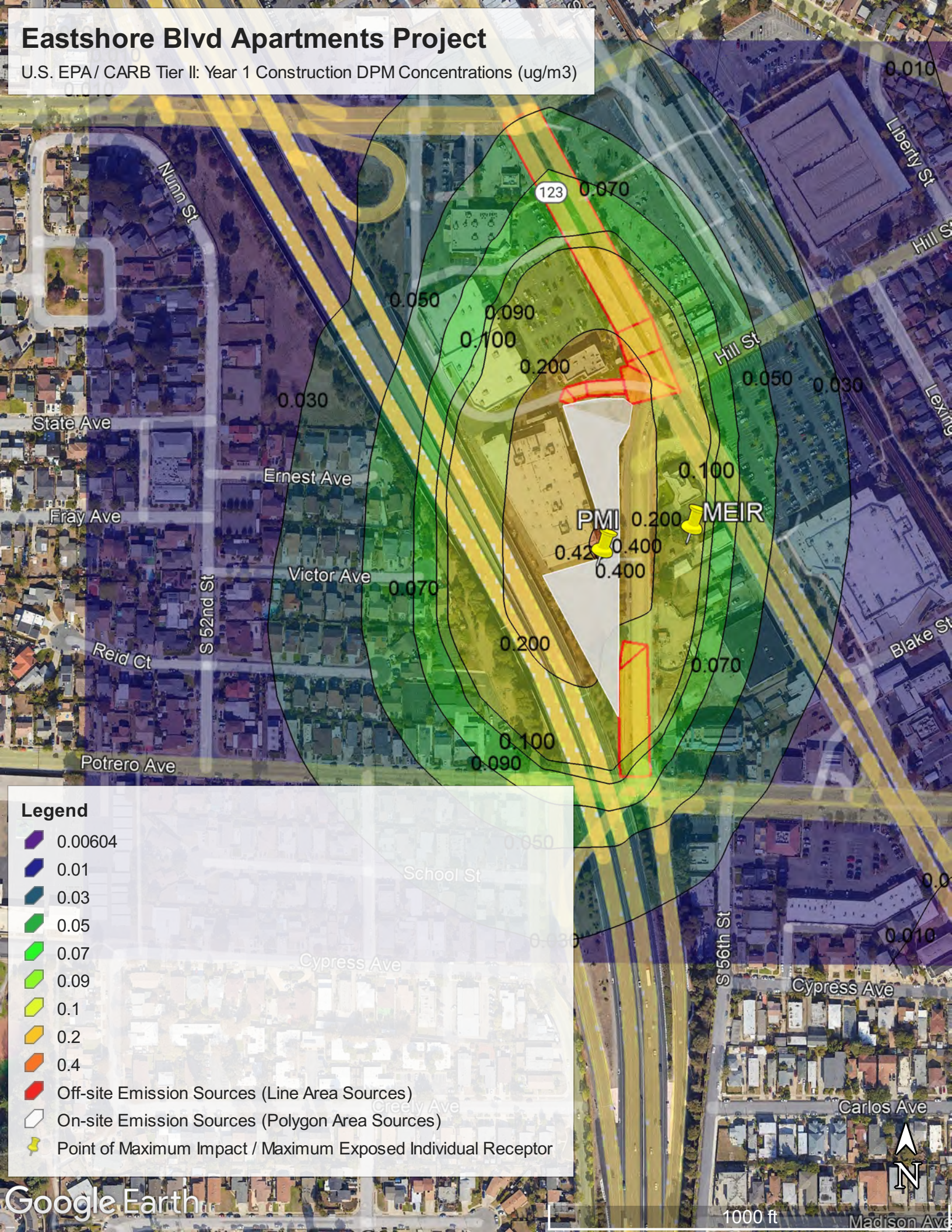
Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
0-2 Years	2.46E-05	1.1	10	1.00	70	0.85	1,000,000	3.3
2-16 Years	1.29E-05	1.1	3	1.00	70	0.72	1,000,000	0.4
16-30 Years	5.89E-06	1.1	1	1.00	70	0.73	1,000,000	0.1
30-70 Years	5.26E-06	1.1	1	1.00	70	0.73	1,000,000	0.1

Total Excess Risk at MEIR (Cumulative, Based on Age at Start of Construction)

	Infant	Child < 2	Child 2<x<16	Adult 16<x<30	Adult 30<x<70
Year 1	3.9	3.6	0.5	0.1	0.1
Year 2	3.3	3.3	0.4	0.1	0.1
Total	7.2	6.9	0.9	0.1	0.1

Eastshore Blvd Apartments Project

U.S. EPA / CARB Tier II: Year 1 Construction DPM Concentrations (ug/m3)

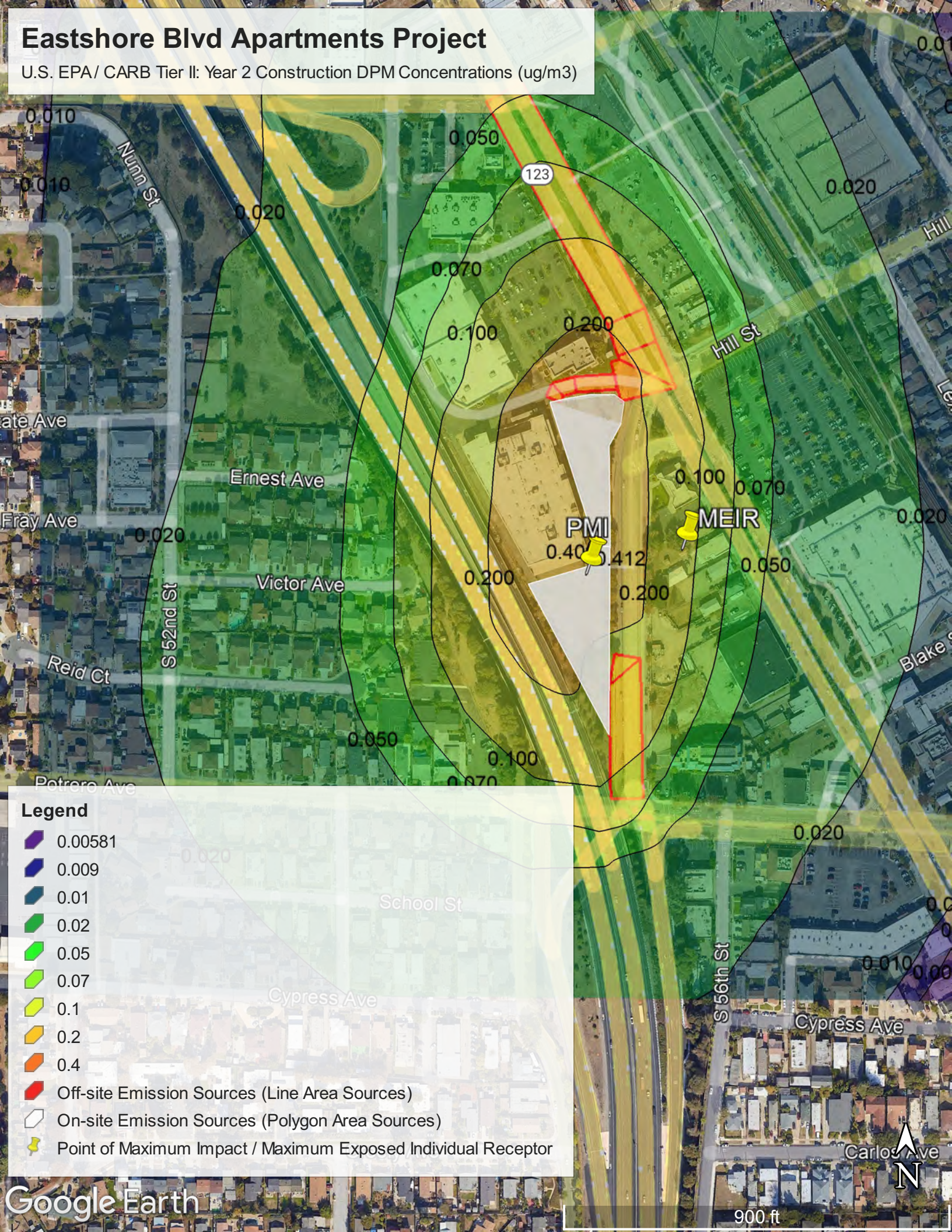


Legend

- 0.00604
- 0.01
- 0.03
- 0.05
- 0.07
- 0.09
- 0.1
- 0.2
- 0.4
- Off-site Emission Sources (Line Area Sources)
- On-site Emission Sources (Polygon Area Sources)
- Point of Maximum Impact / Maximum Exposed Individual Receptor

Eastshore Blvd Apartments Project

U.S. EPA / CARB Tier II: Year 2 Construction DPM Concentrations (ug/m3)



Legend

- 0.00581
- 0.009
- 0.01
- 0.02
- 0.05
- 0.07
- 0.1
- 0.2
- 0.4
- Off-site Emission Sources (Line Area Sources)
- On-site Emission Sources (Polygon Area Sources)
- Point of Maximum Impact / Maximum Exposed Individual Receptor


Eastshore Blvd Apartments Project
U.S. EPA / CARB Tier IV: Year 1 Construction DPM Concentrations (ug/m3)
123
Dunn St
Peerless Ave
Hill St
San Pablo Ave
Ernest Ave
Victor Ave
Reid Ct
S 52nd St
Potrero Ave
School St
Cypress Ave
S 56th St
Carlos Ave
PMI
MEIR
5.0E-03
1.0E-02
9.0E-03
7.0E-03
3.0E-02
5.0E-02
7.0E-02
9.0E-02
Legend
0.0016
0.005
0.007
0.009
0.01
0.03
0.05
0.07
0.09
Off-site Emission Sources (Line Area Sources)
On-site Emission Sources (Polygon Area Sources)
Point of Maximum Impact / Maximum Exposed Individual Receptor
Google Earth
900 ft
N

Eastshore Blvd Apartments Project

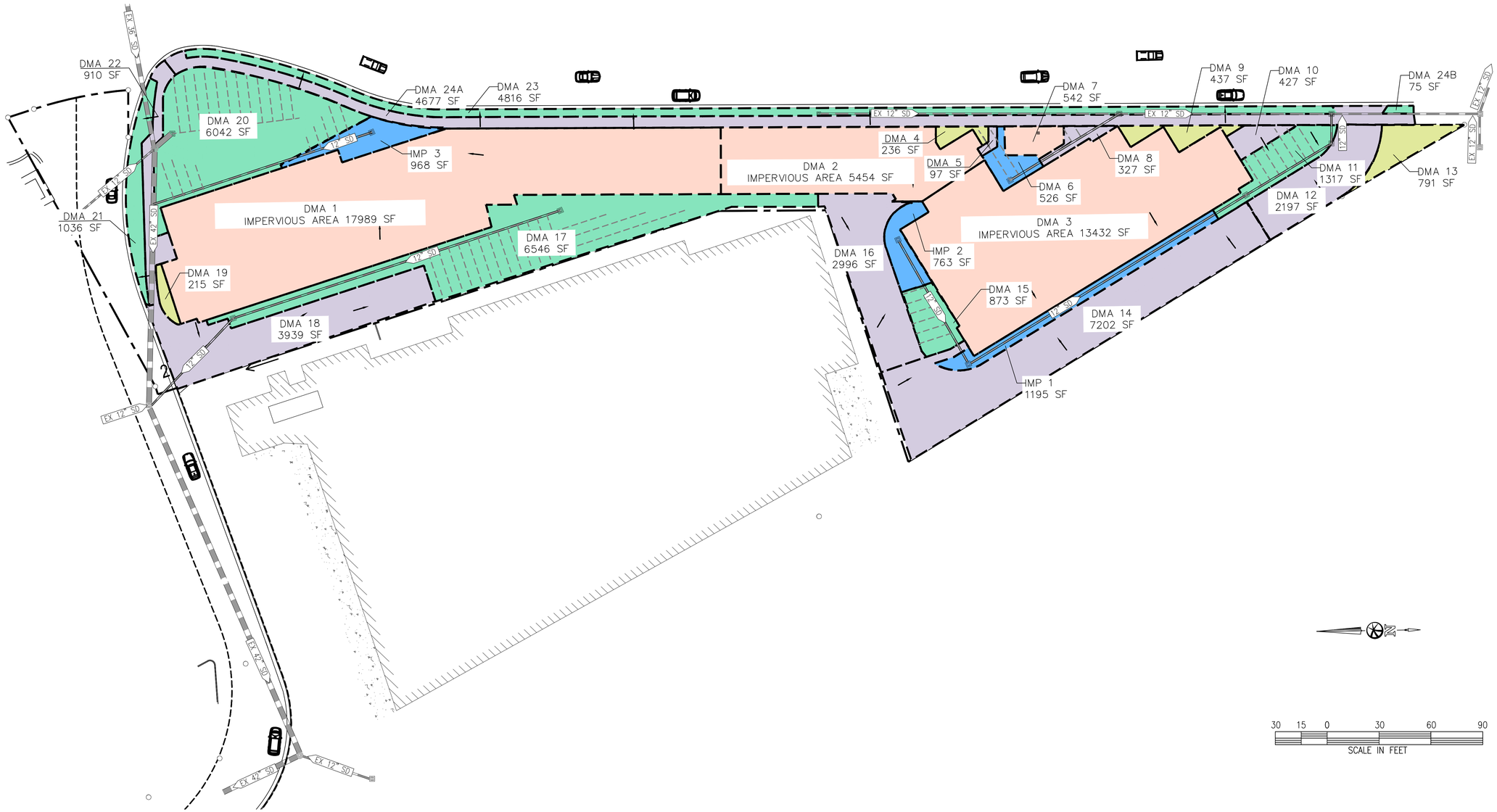
U.S. EPA / CARB Tier IV: Year 2 Construction DPM Concentrations (ug/m3)



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APPENDIX B

STORMWATER CONTROL PLAN



IMP SIZING SUMMARY

SELF-TREATING AREA

DMA NAME	AREA (SF)
DMA 4	236
DMA 9	437
DMA 13	791
DMA 19	215

SELF-RETAINING AREA

DMA NAME	AREA (SF)
DMA 6	526
DMA 11	1,317
DMA 15	873
DMA 17	6,546
DMA 21	1,047
DMA 24A	4,677
DMA 24B	75

AREAS DRAINING TO SELF-RETAINING AREAS

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	[A] AREA x RUNOFF FACTOR	RECEIVING SELF-RETAINING DMA	[B] SELF-RETAINING DMA AREA (SF)	RATIO [A]/[B]
DMA 5	97	CONCRETE	1.0	97	DMA 6	526	0.18
DMA 7	542	CONV.ROOF	1.0	542	DMA 6	526	1.03
DMA 8	327	CONCRETE	1.0	327	DMA 6	526	0.62
DMA 10	427	CONCRETE	1.0	427	DMA 11	1,317	1.32
DMA 12	2,197	CONCRETE	1.0	2,197	DMA 11	1,317	1.67
DMA 18	3,939	CONCRETE	1.0	3,939	DMA 17	6,546	0.60
DMA 22	910	CONCRETE	1.0	910	DMA 21	1,047	0.87
DMA 23	4,816	CONCRETE	1.0	4,816	DMA 24A	4,677	1.03

IMP NAME: IMP 1
IMP TYPE: FLOW-THROUGH PLANTER
SOIL TYPE: C

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	IMP SIZING			
					IMP SIZING FACTOR	RAIN ADJUSTMENT FACTOR	MINIMUM AREA OR VOLUME	PROPOSED AREA OR VOLUME
DMA 3	13,432	CONV. ROOF	1.0	13,432				
DMA 14	7,202	CONCRETE	1.0	7,202				
			TOTAL	20,634				
			AREA		0.040	1.000	825	1,195

IMP NAME: IMP 2
IMP TYPE: FLOW-THROUGH PLANTER
SOIL TYPE: C

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	IMP SIZING			
					IMP SIZING FACTOR	RAIN ADJUSTMENT FACTOR	MINIMUM AREA OR VOLUME	PROPOSED AREA OR VOLUME
DMA 2	5,454	CONV. ROOF	1.0	5,454				
DMA 16	2,996	CONCRETE	1.0	2,996				
			TOTAL	8,450				
			AREA		0.040	1.000	338	763

IMP NAME: IMP 3
IMP TYPE: FLOW-THROUGH PLANTER
SOIL TYPE: C

DMA NAME	AREA (SF)	POST-PROJ. SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA x RUNOFF FACTOR	IMP SIZING			
					IMP SIZING FACTOR	RAIN ADJUSTMENT FACTOR	MINIMUM AREA OR VOLUME	PROPOSED AREA OR VOLUME
DMA 1	17,986	CONV. ROOF	1.0	17,986				
			TOTAL	17,986				
			AREA		0.040	1.000	719	968

LEGEND

- PROJECT BOUNDARY
- DMA BOUNDARY
- PROPOSED STORM DRAIN LINE
- 4" PERFORATED PIPE
- EASEMENT LINE
- IMPERVIOUS DMA – CONVENTIONAL ROOF
- IMPERVIOUS DMA – ASPHALT/CONCRETE
- SELF-RETAINING LANDSCAPE/PERV. PAVERS
- SELF-TREATING LANDSCAPE
- BIORETENTION/FLOW-THROUGH PLANTER
- DIRECTION OF FLOW
- STORM DRAIN MANHOLE
- STORM DRAIN INLET

PRELIMINARY
NOT FOR CONSTRUCTION

Bellecci & Associates, inc.
Civil Engineering • Land Surveying

REGISTERED PROFESSIONAL ENGINEER FRANK CARLO BELLECCI NO. C 37,000

1755 EASTSHORE, LLC
EL CERRITO APARTMENTS
STORMWATER CONTROL PLAN

SHEET C-105

STORMWATER CONTROL PLAN

for

EL CERRITO APARTMENTS

1711 EASTSHORE BLVD.

EL CERRITO, CA

March 2022

AMG & Associates, LLC
18633 Ventura Ave.
Encino, CA 91436



prepared by:

Bellecci & Associates
2290 Diamond Blvd., Suite 100
Concord, CA 94520
925-685-4569

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Stormwater Control Plan Exhibit

IMP Sizing Calculator Output

Special Project Table

TrueGrid Pro Plus Grass Infill Paver Detail

This Stormwater Control Plan was prepared using the template dated February 2018.

I. PROJECT DATA [Complete the following table and include in Stormwater Control Plan.]

Table 1. Project Data

Project Name/Number	El Cerrito Apartments
Application Submittal Date	July 2020, Rev. Dec. 2020
Project Location	1711-1755 Eastshore Blvd. El Cerrito, CA APN 513-371-002-9
Name of Developer	AMG & Associates
Project Phase No.	N/A
Project Type and Description	One building—5 residential stories with podium parking below the building.
Project Watershed	Fluvius Innominatus Watershed
Total Project Site Area (acres)	1.83 acres (1.93 acres including a portion of Peerless and offsite sidewalk/landscape)
Total Area of Land Disturbed (acres)	1.9± acres
Total New Impervious Surface Area (sq. ft.)	0 sf
Total Replaced Impervious Surface Area	61,012 sf
Total Pre-Project Impervious Surface Area	86,033 sf
Total Post-Project Impervious Surface Area	61,012 sf
50% Rule[*]	Applies
Project Density	173 DU/Acre
Applicable Special Project Categories [Complete even if all treatment is LID]	Special Project C
Percent LID and non-LID treatment	100% LID treatment
HM Compliance [†]	Exempt—the post-project impervious area is less than the pre-project impervious area. This project will consider treatment only.

[*50% rule applies if:
Total Replaced Impervious Surface Area > 0.5 x Pre-Project Impervious Surface Area]

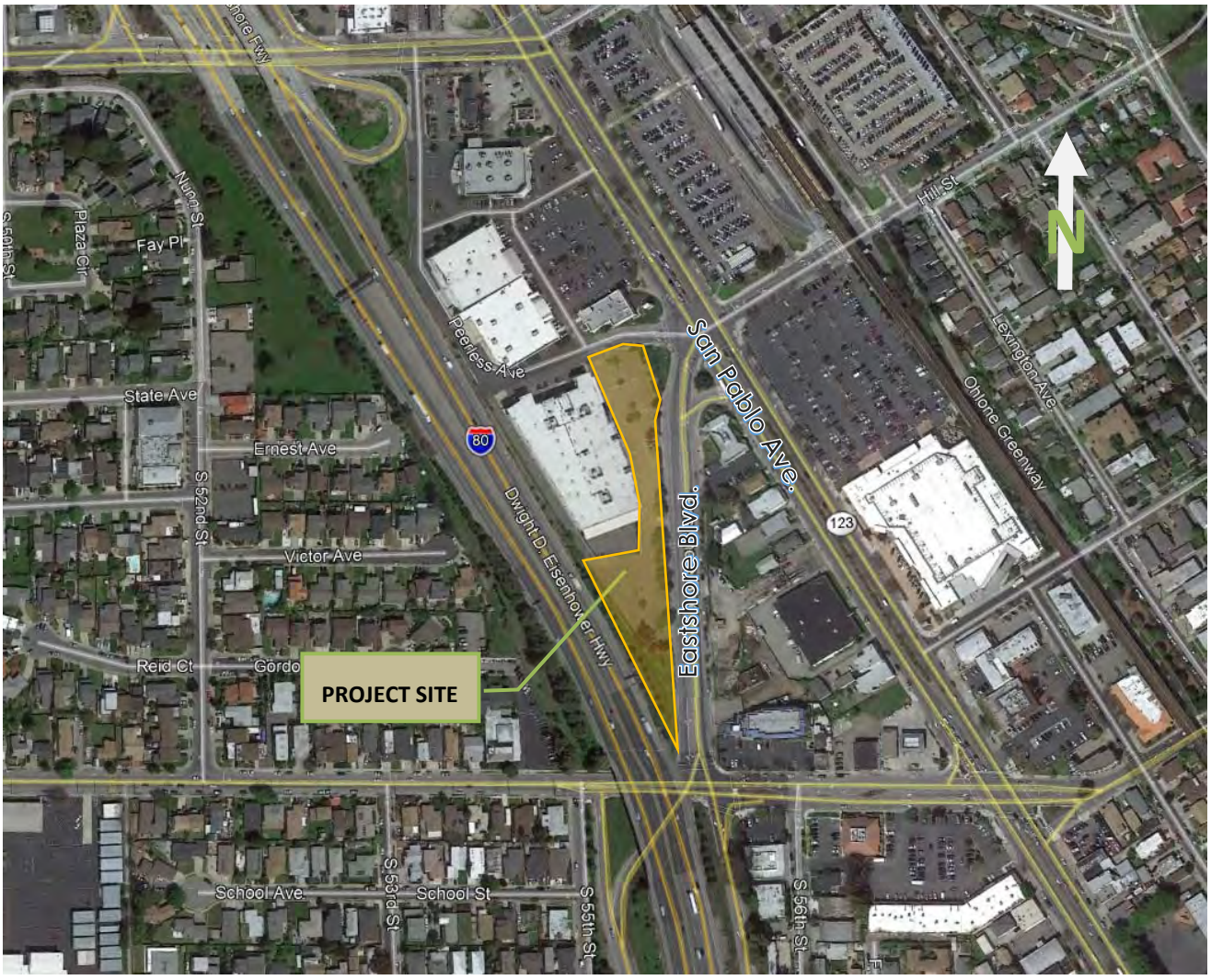
[†HM required (unless project meets one of the exemptions on *Guidebook* p. 9) if:
(Total New Impervious Surface Area + Total Replaced Impervious Surface Area) ≥ 1 acre]

II. SETTING

II.A. Project Location and Description

The El Cerrito Apartment Project (APN 513-371-002-9) is located at 1711 Eastshore Blvd in El Cerrito, Contra Costa County, California, just east of the Dwight D. Eisenhower Highway (I-80) as shown in the vicinity map in Figure 1 below. The proposed Project falls under the Downtown Transit Oriented Higher Intensity Mixed-Use (TOHIMU) zoning district and impacts the area of the site approximately 1.9± acres in size. The Project includes construction of one 5-story apartment building with podium parking below, amenities, two EVA access roads, and 13 uncovered pervious paver parking stalls. The proposed Project will replace 61,012 SF of impervious surfaces, reducing the overall impervious surfaces by 29%--exempting the Site from Hydrograph Modification management (i.e. flow control) requirements of the MRP. However, since the proposed Project replaces over 50% of the pre-project impervious surface, totaling over one (1) acre, it is required to include treatment measures and for 100% of the Site.

Figure 1: Vicinity Map



II.B. Existing Site Features and Conditions

The proposed project is 1.9 ± acres and triangular in shape. The property is surrounded by existing commercial use properties, with the an existing building and Interstate-80 running parallel to the southwest property line. The site slope ranges from 1% to 9%. A City maintained public storm drain system exists in Eastshore Blvd. Runoff captured from the Site will ultimately be directed to this storm drain system. Approximately 68% of the existing site consists of impervious asphalt drive isles and parking lot, concrete sidewalk, and conventional roof. The Site has no existing hydrologic features and consists of Type C soil per NRCS web soil survey.

II.C. Opportunities and Constraints for Stormwater Control

The following are the constraints and opportunities affecting the selection of treatment and flow control facilities for the project.

Building Roof Drainage: The proposed building architecture does not incorporate a green roof. The proposed building roof will generate runoff, which will be treated by three flow-through planters.

Access Driveway: There are two EVA access driveways on the Site. The EVA access, up to 150-ft lengths for fire truck access will utilize impervious asphalt and treated via the remaining pervious paver sections of the driveways and a flow-through planter. The adjoining sidewalks will be treated via pervious pavers and self-retaining landscape.

Uncovered Parking: The project proposes 13 uncovered parking spaces. All uncovered parking needs to be treated with a LID method, per the MRP. The parking area will utilize pervious pavers for treatment purposes, which will also be able to treat the adjacent impervious concrete sidewalk/driveways.

Landscaping: Site plan proposes extensive landscaping across property frontage, along perimeter, and throughout the courtyard area. Landscaping features are a critical component of the site design and will include a flow-through planter and various landscape planters to be utilized as treatment features.

Sidewalks: Following with the new C.3 guidelines, the replaced sidewalks within the City's ROW will be treated by the landscape planters within the ROW—both are included in the SWCP design.

Rain Cycle: The period between the dry season and rainy season are long enough to make storage of rainwater for reuse not feasible. The San Francisco Bay Area rain cycle hinders the opportunities for storage and reuse.

Group C Soil: As per NRCS Web Soil Survey, the property has group C soils. These consists mainly of clay, having a low infiltration rate (high runoff potential) when thoroughly wet and high rate of water transmission.

Ground Water Table: As per NRCS Web Soil Survey, the groundwater table is more than 80" deep.

Hydraulic Head for Stormwater Treatment: The proposed project has slopes ranging 2% to 9% providing sufficient hydraulic head for stormwater treatment.

III. LOW IMPACT DEVELOPMENT DESIGN STRATEGIES

III.A. Optimization of Site Layout

As this Site was previously developed, consisting of nearly 100% hardscape, the limitations to a low impact design are only constrained by lack of slopes and existing storm drain system. There are no

natural drainage features or required setbacks. The site design has been well-planned with LID taking precedent and consists of many pervious/landscape features that not only soften and beautify the Site, but also act as treatment measures for the impervious areas.

III.A.1. Limitation of development envelope

The site has slopes varying from 2% to 9% and constrained on most sides, allowing for minimal grading and drainage. Innovative measures need to be taken for the site to comply with the Contra Costa County C.3 guidelines.

III.A.2. Preservation of natural drainage features

There are no existing natural drainage features which require preservation. There is an existing drainage ditch within the Caltrans ROW with two existing storm drain catch basins on either end.

III.A.3. Setbacks from creeks, wetlands, and riparian habitats

There are no nearby creeks, wetlands and/or riparian habitat which require a setback within or surrounding the Site's boundaries.

III.A.4. Minimization of imperviousness

To minimize the use of impervious surfaces, pervious pavers will be utilized when possible. Landscape features are proposed where impervious surfaces are not necessary.

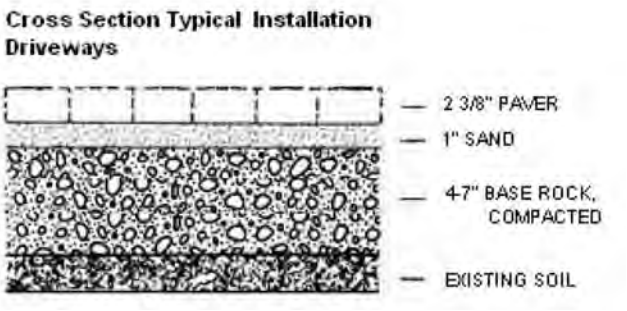
III.A.5. Use of drainage as a design element

The improvements will be designed to drain to LID treatment features, including pervious pavers, flow-through planters, and self-retaining landscape.

III.B. Use of Permeable Pavements

Permeable pavers (Hydro-Flo Holland 60mm) are proposed throughout the site, including to provide treatment for the uncovered parking spaces, drop-off driveways, and a portion of the EVA. The center of the EVA will utilize TureGrid Pro Plus Grass Infill Heavy Duty Pavers (see attachments for detail), which are designed for uses including fire lines. Full details of these pavers are included as attachments. The base volume control and treatment areas are parallel between the different types of paver systems, allowing them to continuously work as one unit.

Figure 2: Hydro-Flo Holland 60mm Paver



III.C. Dispersal of Runoff to Pervious Areas

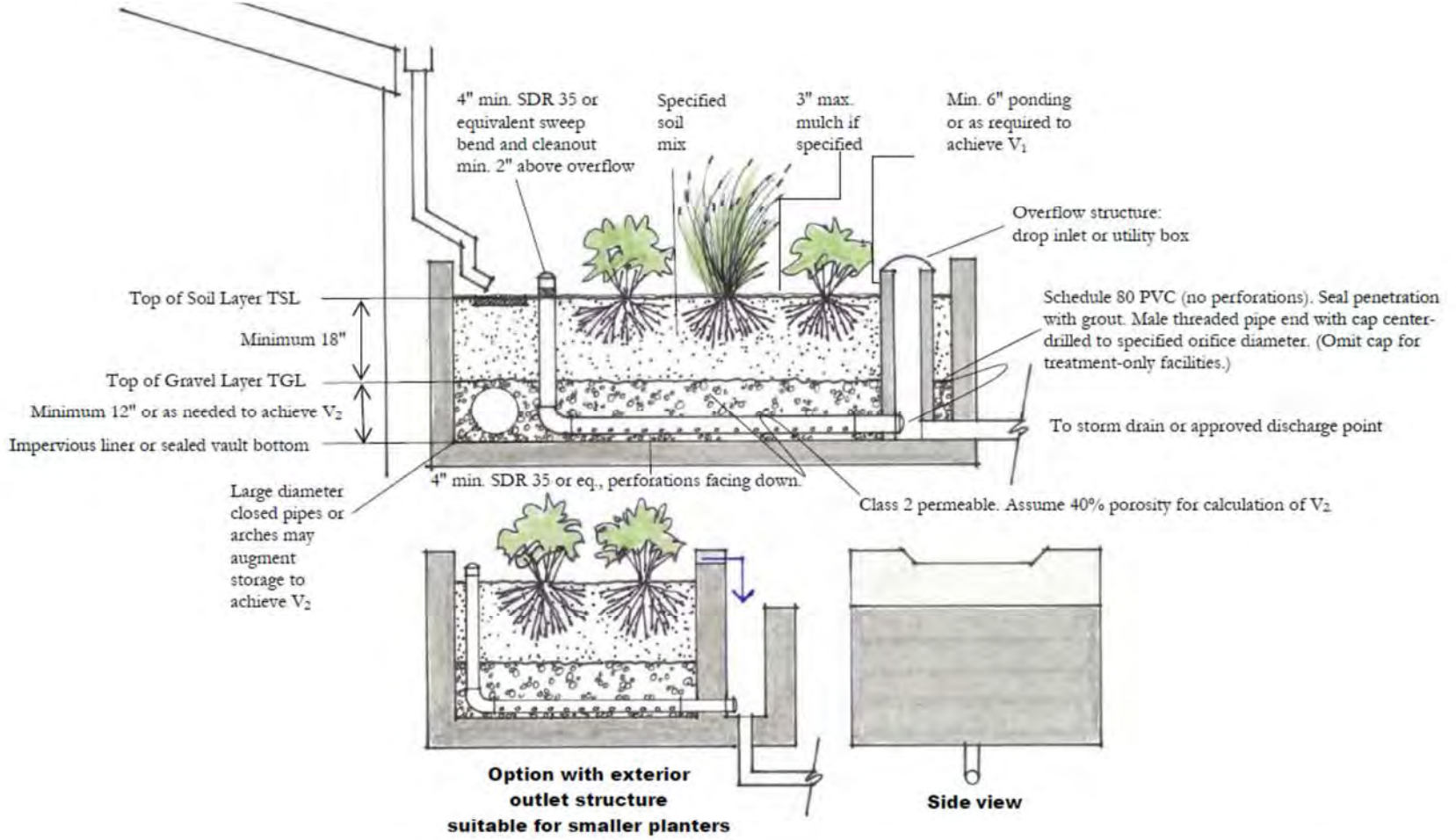
The majority of the Site's impervious areas are conventional roofs that will generate quick runoff. The roof drains will be directed to splash blocks dispersed throughout the Site, which will allow the runoff to flow to the appropriate treatment areas, where it will be treated prior to entering the existing storm drain network in Eastshore Blvd.

III.D. Bioretention or other Integrated Management Practices

Bioretention facilities and flow-through planters detain runoff in a surface reservoir, filter the runoff through plants roots and a biologically active soil mix, and then infiltrate it into the ground or relay treated runoff to a public storm drain system. Bioretention facilities typically have an open-bottom to allow for ground infiltration, as such, it is standard to construct them a minimum of 10-feet from building foundations. Previous common practice was to construct a 3:1 maximum slope around the bioretention facility. The 7th Edition Contra Costa County Stormwater C.3 Guidebook prefers a "bath tub" style, where a concrete curb surrounds the perimeter of the bioretention facility, allowing for one evenly flat soil grade. However, for bioretention facilities abutting a sidewalk, this new style could provide a potential tripping hazard and may even require a handrail, in some instances. Flow-through planters, on the other hand, are designed to be constructed next to building foundations and have a closed bottom the prevent ground infiltration. In both cases, excess treated runoff will be captured via a perforated pipe, where it will be conveyed to the public storm drain system.

The site design consists of three flow-through planter IMP's for treatment. The flow-through planters will treat the roof runoff. IMP 1 and 2 will also treat a portion of the impervious driveway. The underdrain system connects to the existing storm drain system in Peerless Ave.

Figure 3: Flow-Through Planter



Notes:

- Underdrain to be min. 4" PVC SDR 35 or equiv. with holes facing down.
- Locate undedrain as close as possible to bottom.
- No filter fabric, no landscape cloth.
- See Appendix B for soil mix specification, planting and irrigation guidance.
- See Chapter 3 for factors and equations used to calculate V_1 V_2 and orifice diameter.

IV. DOCUMENTATION OF DRAINAGE DESIGN

IV.A. Descriptions of each Drainage Management Area

IV.A.1. Table of Drainage Management Areas

Table 2. Drainage Management Areas (DMAs)

DMA Name	*Surface Type*	*Area (sf)*	*Drains to*	*IMP Typ*
DMA 1	Conventional Roof	17,986	IMP 1	Flow-through Planter
DMA 2	Conventional Roof	5,454	IMP 2	Flow-through Planter
DMA 3	Conventional Roof	13,432	IMP 3	Flow-through Planter
DMA 4	Landscape	236	DMA 4	Self-Treating
DMA 5	Concrete Sidewalk	97	DMA 6	Self-Retaining
DMA 6	Landscape	526	N/A	Self-Retaining
DMA 7	Conventional Roof	542	DMA 6	Self-Retaining
DMA 8	Concrete Sidewalk	327	DMA 6	Self-Retaining
DMA 9	Landscape	437	N/A	Self-Treating
DMA 10	Concrete Sidewalk	427	DMA 11	Self-Retaining
DMA 11	Pervious Pavers/Landscape	1,317	N/A	Self-Retaining
DMA 12	Asphalt Driveway	2,197	DMA 11	Self-Retaining
DMA 13	Landscape	791	N/A	Self-Treating
DMA 14	Asphalt Driveway	7,202	IMP 1	Flow-through Planter
DMA 15	Pervious Pavers	873	N/A	Self-Retaining
DMA 16	Asphalt Driveway	2,996	IMP 2	Flow-through Planter
DMA 17	Pervious Pavers	6,546	N/A	Self-Retaining
DMA 18	Concrete Driveway	3,939	DMA 17	Self-Retaining
DMA 19	Landscape	215	N/A	Self-Treating

DMA 20	Pervious Pavers/Landscape	6,042	N/A	Self-Retaining
DMA 21	Landscape	1,047	N/A	Self-Retaining
DMA 22	Concrete Sidewalk	910	DMA 21	Self-Retaining
DMA 23	Concrete Sidewalk	4,816	DMA 24	Self-Retaining
DMA 24	Landscape	4,627	N/A	Self-retaining
DMA 25	Landscape	75	N/A	Self-Retaining

IV.A.2. Drainage Management Area Descriptions

DMA 1, totaling 17,986 square feet, is an impervious conventional roof that drains to flow-through planter, IMP 3.

DMA 2, totaling 5,454 square feet, is an impervious conventional roof that drains to flow-through planter, IMP 2.

DMA 3, totaling 13,432 square feet, is an impervious conventional roof that drains to flow-through planter, IMP 1.

DMA 4, totaling 236 square feet, is a self-treating landscape area along Eastshore Blvd.

DMA 5, totaling 97 square feet, is an impervious concrete walkway that drains to the self-retaining landscape planter, DMA 6.

DMA 6, totaling 526 square feet, self-retaining landscape area fronting Eastshore Blvd.

DMA 7, totaling 542 square feet, is an impervious conventional roof that drains to self-retaining landscape planter, DMA 6.

DMA 8, totaling 327 square feet, is an impervious concrete sidewalk that drains to self-retaining landscape planter, DMA 6.

DMA 9, totaling 437 square feet, self-treating landscape area fronting Eastshore Blvd.

DMA 10, totaling 427 square feet, an impervious concrete sidewalk drains to self-retaining landscape planter, DMA 11.

DMA 11, totaling 1,317 square feet, consists of self-retaining pervious pavers and landscape planters near the Eastshore Blvd. driveway.

DMA 12, totaling 2,197 square feet, consists of an impervious asphalt driveway That drains to self-retaining DMA 11.

DMA 13, totaling 791 square feet, is a self-treating landscape planter located at the southernmost tip of the Site along Eastshore Blvd.

DMA 14, totaling 7,202 square feet, is an impervious asphalt driveway that drains to IMP 1 and is located near the Eastshore Blvd. driveway.

DMA 15, totaling 873 square feet, is a self-retaining area consisting of pervious paver and landscape planter.

DMA 16, totaling 2,996 square feet, is an impervious asphalt driveway that drains to IMP 2.

DMA 17, totaling 6,546 square feet, is the self-retaining pervious paver section of the driveway off Peerless Ave.

DMA 18, totaling 3,939 square feet, is the impervious asphalt driveway located off Peerless Ave. DMA 18 drains to self-retaining DMA 17.

DMA 19, totaling 215 square feet, is a self-treating landscape planter near Peerless Ave.

DMA 20, totaling 6,042 square feet, is a self-retaining area consisting of pervious pavers and landscape.

DMA 21, totaling 1,047 square feet, is a self-retaining landscape area off Peerless Ave.

DMA 22, totaling 910 square feet, is an impervious sidewalk fronting Peerless Ave. DMA 22 drains to self-retaining DMA 21.

DMA 23, totaling 4,816 square feet, impervious concrete sidewalk along Eastshore Blvd. DMA 23 drains to self-retaining DMA 24.

DMA 24, totaling 4,677 square feet, is a self-retaining landscape area along Eastshore Blvd.

DMA 25, totaling 75 square feet, is a self-retaining landscape area along Eastshore Blvd.

IV.B. Integrated Management Practice Descriptions

This project does not require non-LID treatment.

IV.C. Tabulation and Sizing Calculations

The Contra Costa County C.3 Stormwater Sizing Tool software was used to determine stormwater treatment calculations. The summary output from the software is included as an attachment.

V. SOURCE CONTROL MEASURES

V.A. Site activities and potential sources of pollutants

Pollutants that accompany traditional residential and limited agriculture facilities can be expected at this Site, such as pesticides or other unwanted pollutants draining into the on-site storm drain inlets without being pre-treated.

V.B. Source Control Table

Table 3. Source Controls

Potential source of runoff pollutants	*Permanent source control BMPs*	*Operational source control BMPs*
On-site storm drain inlets	Inlets that could be accessed from sidewalks or driveways will be marked with the words, "No Dumping! Flows to Bay" or similar.	Inlet markings will be inspected annually and replaced or renewed, as needed. Swales and related structures and features will be inspected and maintained as specified in the BMP Operation and Maintenance Plan (to be developed and submitted for approval.) See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbools.com. Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
Interior Floor Drains and elevator shaft sump pumps.	In the event that interior floor drains and/or elevator shaft sump pumps will be installed, they are to be plumbed to the sanitary sewer.	Drains will be regularly inspected and maintained to prevent blockages and overflow.
Need for Future Indoor and Structural Pest Control.	Standard building design minimizes potential needs for future pest control.	Buyers will receive integrated pest management information.

Landscape/Outside Pesticide Use.	Any native trees, shrubs, and ground cover on the site will be preserved to the maximum extent possible. Landscaping will be designed to minimize irrigation and runoff, to promote surface infiltration, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Plants that are tolerant to saturated soil conditions will be used for landscaped Self-Retaining and Self-Treating areas. Where possible, pest-resistant plants will be selected, especially for locations adjacent to hardscape. Plants will be selected appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions to insure successful establishment.	Buyers will receive integrated pest management (IPM) information. All open space landscaping is to be maintained by a professional landscaping contractor. All landscaping will be maintained using the minimum amount of pesticides possible.
Refuse Areas—Dumpster Storage	The storage facility for the dumpster will consist of a concrete pad, graded with a drainage inlet leading to the sanitary sewer system to prevent infiltration to the storm drain and surrounding soil. Berms will prevent run-on and runoff from the concrete pad. A structure, consisting of walls, latching doors, and a roof, will prevent rain runoff and unwanted intruders from accessing the dumpsters. Signs will be posted on or near the dumpsters and trash receptacles with the words "**Do not dump hazardous materials here**" or similar. Trash receptacles will be placed in common meeting areas and locations where litter is most probable to occur.	All material to be stored in dumpster until onsite pickup occurs will be bagged and sealed to prevent leaks and loose debris. Dumpsters will remain covered at all times. All trash receptacles will be inspected annually for holes and cracks to prevent leaks and loose debris. Damaged trash receptacles will be repaired or replaced immediately. Trash receptacles will remain covered at all times. Litter will be picked-up daily and spills cleaned immediately. Spill control materials will be available on site at all times.
Vehicle and Equipment Cleaning		Onsite car washing will be prohibited.
Vehicle Maintenance		Onsite vehicle maintenance or repair will be prohibited.
Fire Sprinkler Test	Fire sprinkler test valves will be equipped with a means to divert test water to the sanitary sewer.	

Rooftop Equipment	Rooftop mounted equipment will be covered to prevent pollutants from contaminating the runoff.	
Roofing, Gutters and Trim	Roofing, gutters, and trims made of copper or unprotected metals that may leach into runoff will be avoided.	
Plazas, Sidewalks, and Parking Lots		Plazas, sidewalks, and parking lots will be swept regularly to prevent the accumulation of litter and debris. Debris from pressure washing will be collected and wash water containing any cleaning agent or degreaser will be discharged to the sanitary sewer to prevent entry into the storm drain system.

V.C. Features, Materials, and Methods of Construction of Source Control BMPs

The property owner will be responsible for inspecting and maintaining all treatment facilities per the final O&M Agreement with the City.

VI. STORMWATER FACILITY MAINTENANCE

VI.A. Ownership and Responsibility for Maintenance in Perpetuity

All stormwater treatment facilities in this plan will be maintained by the owner. The owner accepts full responsibility for interim operation and maintenance of the facilities until such time as this responsibility is formally transferred to a subsequent owner.

VI.B. Summary of Maintenance Requirements for Each Stormwater Facility

- Examine downspouts from rooftops or sheet flow from paving to ensure that flow to the porous pavement is unimpeded. Remove any debris and repair any damaged pipes. Check splash blocks or rocks and repair, replace, or replenish as necessary.
- Examine the overflow pipe to make sure it can safely convey excess flows to a storm drain. Repair or replace any damaged or disconnected piping.
- Check the underdrain piping to make sure it is intact and unobstructed.
- Check that the soil is at the appropriate depth to allow a reservoir above the soil surface and is sufficient to effectively filter stormwater. Remove any accumulation of sediment, litter, and debris. Till or replace soil as necessary. Confirm that soil is not clogging and that the planter will drain within 3-4 hours after a storm event.

- Determine whether the vegetation is dense and healthy. Replace dead plants. Prune or remove any overgrown plants or shrubs that may interfere with planter operation. Clean up fallen leaves or debris and replenish mulch. Remove any nuisance or invasive vegetation

VII. CONSTRUCTION PLAN C.3 CHECKLIST

Table 4. Construction Plan C.3 Checklist

Stormwater Control Plan Page #	BMP Description	See Plan Sheet #s
5	The flow-through planter will be designed to treat runoff and decrease the time of concentration before discharging to the storm drain system.	
11 (Source Control Table)	On-site drain inlets to be marked with "No Dumping" message.	
11 (Source Control Table)	Preservation (if any) of native trees, shrubs or ground cover.	
11 (Source Control Table)	Plant selection to minimize irrigation and use of fertilizer and pesticides—pest-resistant.	
11 (Source Control Table)	Storage structure for the dumpster and concrete pad graded with inlet connected to the SS systems.	
11 (Source Control Table)	Enclosures for all rooftop mounted equipment to prevent pollutant contamination of runoff.	
11 (Source Control Table)	Roofing, gutters, or trim made of copper or unprotected metals that may leach into the runoff will not be permitted.	

VIII. CERTIFICATIONS

The selection, sizing, and preliminary design of stormwater treatment and other control measures in this plan meet the requirements of Regional Water Quality Control Board Order R2-2015-0049.

By

Print Name: Alexandra Farros-Hoeppner, PE

ATTACHMENTS

Project Name: Eastshore - El Cerrito
Project Type: Treatment Only
Location: El Cerrito
APN:
Drainage Area: 86033 sf
Mean Annual Precipitation: 20 in

I. Self-Treating Areas

DMA Name	Area (sq ft)
DMA4	236
DMA9	437
DMA13	791
DMA19	215

II. Self-Retaining Areas

DMA Name	Area (sq ft)
DMA6	526
DMA11	1317
DMA15	873
DMA17	6546
DMA20	6042
DMA21	1047
DMA24	4677
DMA25	75

III. Areas Draining to Self-Retaining Areas

DMA Name	Area (sq ft)	Surface Type	Runoff Factor	Product (Area x Runoff Factor) [A]	Receiving Self Retaining DMA	Receiving Self-Retaing DMA Area (sq ft) [B]	Ratio [A]/[B]
DMA5	97.0	Concrete or Asphalt	1.0	97.0	DMA6	526	0.18
DMA7	542.0	Conventional Roof	1.0	542.0	DMA6	526	1.03
DMA8	327.0	Concrete or Asphalt	1.0	327.0	DMA6	526	0.62
DMA10	427.0	Concrete or Asphalt	1.0	427.0	DMA11	1,317	0.32
DMA12	2,197.0	Concrete or Asphalt	1.0	2,197.0	DMA11	1,317	1.67
DMA18	3,939.0	Concrete or Asphalt	1.0	3,939.0	DMA17	6,546	0.60
DMA22	910.0	Concrete or Asphalt	1.0	910.0	DMA21	1,047	0.87
DMA23	4,816.0	Concrete or Asphalt	1.0	4,816.0	DMA24	4,677	1.03

IV. Areas Draining to IMPs

IMP Name: IMP1 (Soil Type: C)

IMP Type: Flow-Through Planter
Soil Type: C

DMA Name	DMA Area (sq ft)	Post-Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA3	13,432	Conventional Roof	1.00	13,432
DMA14	7,202	Concrete or Asphalt	1.00	7,202
			Total	20,634
			Area	

IMP Sizing			
IMP Sizing Factor	Rain Adjust-ment Factor	Minimum Area or Volume	Proposed Area or Volume
0.040	1.000	825	1,195

IMP Name: IMP2 (Soil Type: C)

IMP Type: Flow-Through Planter
Soil Type: C

DMA Name	DMA Area (sq ft)	Post-Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA2	5,454	Conventional Roof	1.00	5,454
DMA16	2,996	Concrete or Asphalt	1.00	2,996
			Total	8,450
			Area	

IMP Sizing			
IMP Sizing Factor	Rain Adjust-ment Factor	Minimum Area or Volume	Proposed Area or Volume
0.040	1.000	338	763

IMP Name: IMP3 (Soil Type: C)

IMP Type: Flow-Through Planter
Soil Type: C

DMA Name	DMA Area (sq ft)	Post-Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
DMA1	17,986	Conventional Roof	1.00	17,986
			Total	17,986
			Area	

IMP Sizing			
IMP Sizing Factor	Rain Adjust-ment Factor	Minimum Area or Volume	Proposed Area or Volume
0.040	1.000	719	968

TABLE 3-8. NON-LID TREATMENT SYSTEMS may be allowed in these "Special Projects," subject to a demonstration of the infeasibility of using 100% LID and local staff review and approval.
Note: This table is a summary only. Consult with local staff regarding applicability to your project.

Category	*Impervious Area*	*Project Characteristics*	*Criteria (Acreage refers to total site acreage)*	*LID Credit*	*Comments*
A Lot Line to Lot Line	X ≤ ½ Ac	Urban/Pedestrian design[1] in Business/ Downtown Districts[1]	No density criterion	100%	Zero surface parking[1] ≥ 85% Site Coverage[1]
B High Density	½ Ac ≤ X ≤ 2 Ac	Urban/Pedestrian design[1] in Business/ Downtown Districts[2]	Floor Area Ratio[1] (FAR) ≥ 2:1; OR for Residential (Res) projects, ≥ 50 Dwelling Units (DU)/Acre[1]; OR either for mixed-use projects.	50%	Zero surface parking[3] ≥ 85% Site Coverage[4]
			FAR ≥ 3:1; OR Res ≥ 75 DU/Acre	75%	
			FAR ≥ 4:1; OR Res ≥ 100 DU/Acre	100%	
C Transit Oriented	No limit	TOD characteristics Non-auto-use project FAR ≥ 2:1 OR Res ≥ 25 DU/Ac	*Location Credits (count only one)*		
			within ¼ mi of transit hub[1]	50%	50%+ of site w/in distance
			within ½ mi of transit hub[7]	25%	
			within a Priority Development Area	25%	100% of site w/in PDA
			Density/FAR Credits		
			FAR ≥ 2:1; OR Res ≥ 30 DU/Acre	10%	
			FAR ≥ 4:1; OR Res ≥ 60 DU/Acre	20%	
			FAR ≥ 6:1; OR Res ≥ 100 DU/Acre	30%	
			Minimized Parking Credits		
			≤ 10% at-grade surface parking	10%	Surface parking uses LID
			Zero surface parking[3]	20%	

[1] Built as part of a municipality's stated objective to preserve or enhance a pedestrian-oriented type of urban design.

[2] Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district.

[3] Incidental parking allowed: surface parking required for emergency vehicle access, ADA accessibility, and passenger and freight loading zones.

[4] Remaining portion to be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections and public uses.

[5] Floor Area Ratio (FAR) is the ratio of total floor areas on all floors of all buildings at a project site (except structures, floors, or floor areas dedicated to parking) to the total project site area.

[6] Gross Density (DU/Acre) is the total number of residential units divided by the acreage of the entire site area, including land occupied by public ROW, recreational, civic, commercial, and other non-residential uses.

[7] Transit hub is a rail, light rail, or commuter rail station, or bus transfer station served by 3 or more bus routes. A bus stop with no supporting services does not qualify. A planned transit hub is a station on the Metropolitan Transportation Commission's Regional Transit Expansion Program's list.

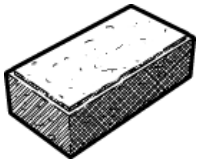
PACIFIC INTERLOCK PAVINGSTONE

SALES:
1495 S Winchester Blvd
San Jose, CA 95128
Off. 408.379.1436
Fax 408.379.1429

PLANT:
1895 San Felipe Rd
Hollister, CA 95023
Off. 831.637.9163
Fax 831.637.0756

www.pacinterlock.com

HOLLAND 60mm



GENERAL SPECIFICATIONS

Section Includes
- A. Concrete units
- B. Bedding sand
- C Execution

References
- A. American Society of Testing Materials (ASTM)
  1. C 936-08, Standard Specification for Interlocking Concrete Paving Units
  2. C 140, Standard Test Methods of Sampling and Testing Concrete Masonry Units
  3. C 136, Method for Sieve Analysis for Fine and Coarse Aggregate
  4. C 33, Specification for Concrete Aggregates.
  5. D 2940, Standard Specification for Graded Aggregate Material for Bases

Quality Assurance
- A. Engage an installer who has successfully completed installations similar in type and size to this project. Installer shall provide certification of experience.
- B. As applicable by state/provincial and local laws, contractor shall hold a current contractor's and business license in the state/ province and locality where work is performed.

Delivery, Storage And Handling
- A. Deliver interlocking pavers to the site in plastic wrapped cubes capable of transfer by fork lift. Unload pavers at job site in such a manner that no damage occurs to the product.
- B. Cover sand and topsoil shall with waterproof covering to prevent exposure to rainfall or removal by wind. Secure the covering in place.

Environmental Conditions
- A. Do not install sand or pavers during heavy rain or snowfall.
- B. Do not install frozen sand or topsoil.

PART 2: PRODUCTS

Holland: 8” x 4” x 2 3/8”
Stones per SF: 4.6
Stones per pallet: 480
Coverage: 104 sf per pallet
Weight: 24# /sf, 2541# /plt

Meets the requirements of ASTM C936-08: Exposed face area of ≤ 101 in^2 (0.065 m^2), average compressive strength not less than 8000psi (55MPa) with no individual unit less than 7200 psi (50 MPa). Dimensional tolerance: Measured length or width shall not differ by more than ±0.063” [1/16”] (±1.6mm) from specified dimensions. Measured height shall not differ by more than ±0.125” [1/8”] (±3.2mm) from the specified dimensions. Test results are certified by the manufacturer.

Bedding Sand

Note: The type of sand used for bedding is often called concrete sand. Sands vary regionally. Contact contractors local to the project and confirm sand(s) successfully used in previous similar applications. Bedding sand is not used in ditch liner applications, slope protection, riparian stabilization, or with boat ramps constructed with concrete grid pavers.

Table 1
Grading Requirements for Bedding Sand

ASTM C33 CSA A23.1-M94

Sieve Size	/ Percent Passing	Sieve Size	/ Percent Passing
3/8 in. (9.5 mm)	100	10 mm	100
No. 4 (4.75 mm)	95 to 100	5 mm	95 to 100
No. 8 (2.36 mm)	85 to 100	2.5 mm	80 to 100
No. 16 (1.18 mm)	50 to 85	1.25 mm	50 to 90
No. 30 (0.600 mm)	25 to 60	0.63 mm	25 to 65
No. 50 (0.150 mm)	0 to 30	0.315 mm	10 to 35
No. 100 (0.150 mm)	2 to 10	0.16 mm	2 to 10

Sieve Size	/ Percent Passing
1/2 in. (12.5 mm)	100
3/8 in. (9.5 mm)	85 to 100
No. 4 (4.75 mm)	10 to 30
No. 8 (2.36 mm)	0 to 10
No. 16 (1.18 mm)	0 to 5

Note: Local, state or provincial standards for aggregate base materials should be used for the gradation and quality of dense-graded aggregate base materials under concrete interlock paving installations. This material should be compacted to a minimum of 95% standard Proctor density.

Table 3

ASTM D 2940 Gradation for Dense-Graded Base

Sieve Size	/ Percent Passing
2 in. (50 mm)	100
1/2 in. (37.5 mm)	95 to 100
3/4 in. (19.0 mm)	70 to 92
½ in. (9.5 mm)	50 to 70
No. 4 (4.75 mm)	35 to 55
No. 30 (0.600 mm)	12 to 25
No. 200 (0.075 mm)	0 to 8

Note: For open-graded bases, gradation conforming to ASTM No. 57 crushed stone aggregate is recommended. The material is typically placed in 4 to 6 in. (100 to 150 mm) thick lifts and compacted with at least four passes of a 10 T static roller. The base material should show no visible movement when compaction is complete. It should be kept free from sediment throughout the entire job. The gradation for No. 57 material is given in Table 4 below:

Table 4

ASTM No. 57 Gradation for Open-Graded Base

Sieve Size	/ Percent Passing
11/2 in. (37.5 mm)	100
1 in. (25 mm)	95 to 100
½ in. (12.5 mm)	25 to 60
No. 4 (4.75 mm)	0 to 10
No. 8 (2.36 mm)	0 to 5

PART 3: EXECUTION

Note: The specifier should be aware that the top surface of the pavers after compaction might be 1/8 to 1/4 in. (3 to 7 mm) above the final elevations after compaction. This difference in initial and final elevations is to compensate for possible minor settling.

Examination

Note: For vehicular areas, specify compaction of the soil sub grade to a minimum of 95% standard Proctor density for dense-graded aggregate bases. Density should be monitored in the field with a nuclear density gauge. Compaction of open-graded bases should be with at least five passes of roller compactor without vibration. Stabilization of the soil and/or base material may be necessary with weak or saturated soils.

A. Verify that base is dry, uniform, even, free of any sediment (if open-graded), and ready to support sand, pavers and imposed loads.

B. Verify gradients and elevations of base are correct.

C. Verify location, type, installation and elevations of edge restraints around the perimeter area to be paved.

D. Beginning of installation means acceptance of base and edge restraints.

Installation

A. Spread the sand evenly over the compacted, dense-graded base course and screed uniformly to 1 – 1 ½ °in. (25 - 40 mm) thickness. The screeded sand s hould not be disturbed. Place sufficient sand to stay ahead of the laid pavers.

B. Ensure that pavers are free from foreign materials before installation.

C. Lay the pavers in the pattern(s) as shown on the drawings. Maintain straight pattern lines.

D. Joints between the pavers shall be between 1/16 in. and 1/8 in. (2 to 4 mm) wide.

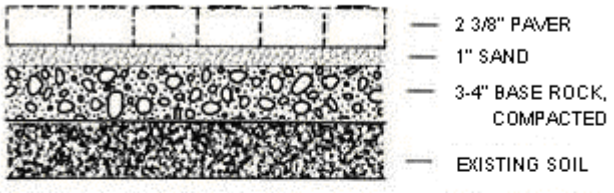
E. Fill gaps at the edges of the paved area with cut pavers or edge units.

F. Cut pavers to be placed along the edge with a double-bladed splitter or masonry saw.

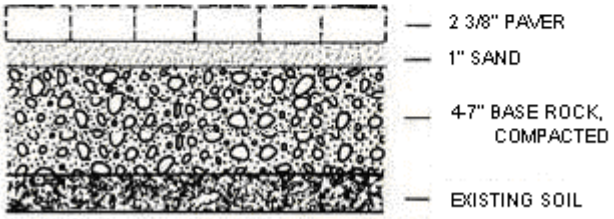
G. Compact and seat the pavers into the screeded [bedding sand] [aggregate] using low amplitude, 75-90 Hz plate compactor capable of at least 5,000 lbs. (22 kN) centrifugal compaction force. Note: A rubber or neoprene pad between the compactor and grids may be necessary to prevent cracking or chipping.

H. Vibrate and compact the pavers again, sweeping [topsoil] [the small fraction of the No. 8 aggregate] into the joints and openings until it is within ½ in. (13 mm) from the top surface. This will require at least two or three passes with the compactor. Do not compact within 3-ft (1 m) of the unrestrained edges of the paving units.

Cross Section Typical Installation for Patios and Sidewalks



Cross Section Typical Installation Driveways



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APPENDIX C

NOISE MEMORANDUM

2055 JUNCTION AVENUE, STE. 205
SAN JOSE, CA 95131
650.327.0429
WWW.MIGCOM.COM

Memo

To: Kimberley Calica, AMG & Associates, LLC

CC: --

From: Chris Dugan

Date: February 26, 2023

SUBJECT: Eastshore Boulevard Apartments Project Noise and Vibration Impact Evaluation

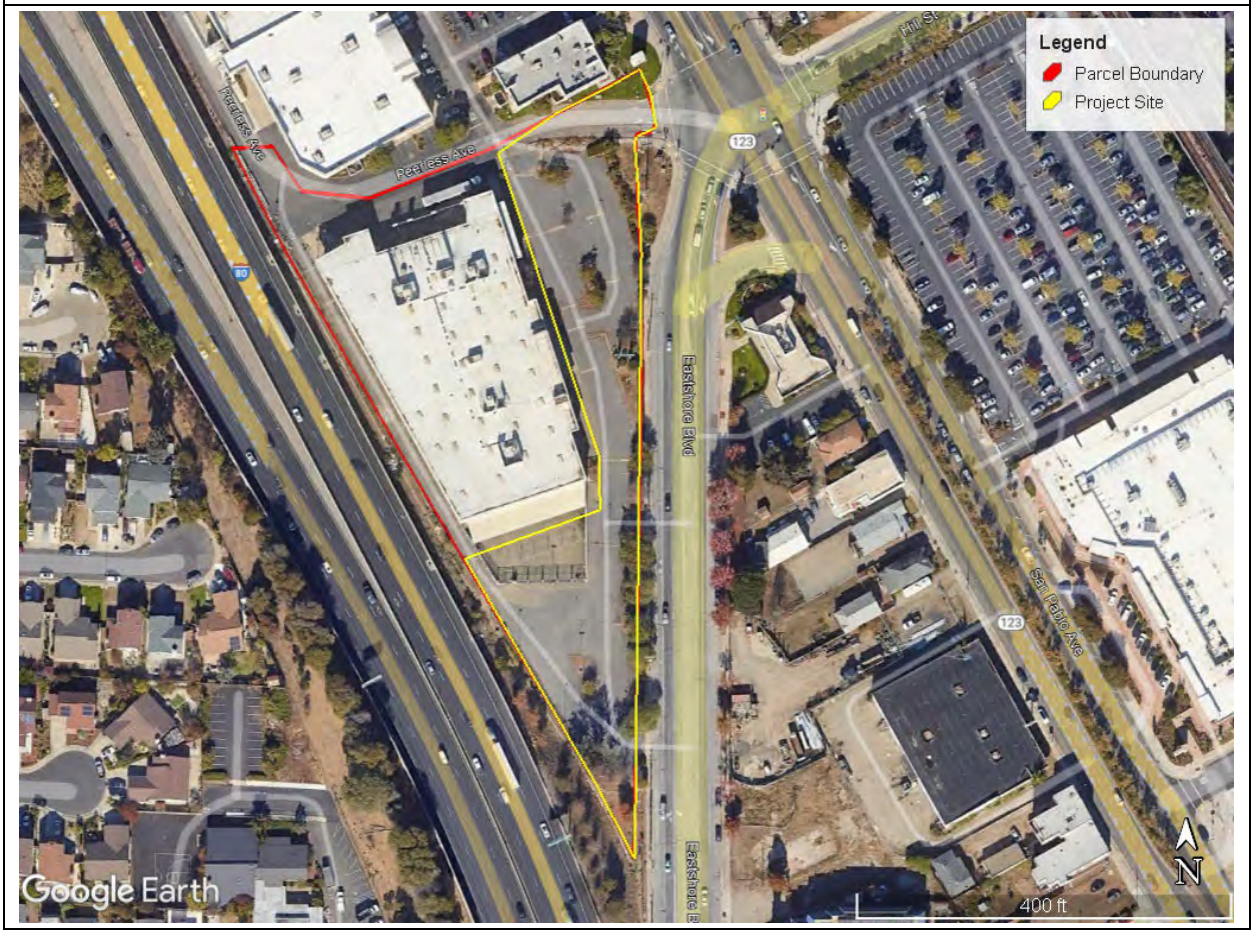
MIG, Inc. (MIG) has prepared this memorandum at the request of AMG & Associates, LLC (AMG or "the applicant"). This memorandum describes the Eastshore Boulevard Apartments Project (proposed project) and evaluates whether the proposed project would result in a new or substantially more severe significant noise and vibration impact than that identified in the City of El Cerrito's California Environmental Quality Act (CEQA) documentation for its San Pablo Avenue Specific Plan (SPASP). As described in more detail below, the proposed project will not result in a new or substantially more severe significant noise and vibration impact because it is consistent with the SPASP land use designations, will result in temporary and permanent noise and vibration impacts consistent with the SPASP Environmental Impact Report (EIR), and has incorporated mitigation and design measures identified in the SPASP EIR related to noise and vibration attenuation.[1] Refer to Attachment 1 for background information on environmental noise and vibration, including terminology used in this memorandum.

PROJECT DESCRIPTION

The proposed project would consist of a 310-unit apartment complex located at 1711-1755 Eastshore Boulevard, near the intersection of Eastshore Boulevard/Peerless Avenue and San Pablo Avenue (State Route (SR) 123), on the western side of the City of El Cerrito, within the SPSAP Area. The project site consists of a triangularly shaped, developed land parcel (Assessor's Parcel Number 513-371-002) that is approximately 3.87 acres in total size (see Figure 1). The project site is bound by Peerless Avenue to the north, Eastshore Boulevard and Potrero Avenue to the south, Eastshore Boulevard to the east, and Interstate 80 (I-80, or Eastshore Freeway) to the west. The El Cerrito Del Norte BART station is located approximately 0.1 miles northeast of the project site. Site access is provided via Peerless Avenue and two driveways on Eastshore Boulevard.

[1] As explained in the "SPASP Background" section, the City of El Cerrito prepared an EIR for the original SPASP in 2014 and a Supplemental EIR, or SEIR, for an update to the SPASP in 2022. For the purposes of this memo, "SPASP" refers to the updated Plan and "SPASP EIR" refers to both the 2014 EIR and the 2022 SEIR documents unless specifically indicated otherwise.

Figure 1: Aerial View of Project Site



The proposed project site consists of lands classified by the City's Zoning Code and designated by the City's General Plan and SPASP as Transit-Oriented Higher-Intensity Mixed Use (TOHIMU). Lands surrounding the site generally include a mix of commercial and residential development including:

- Commercial shops (e.g., Ross Dress for Less) and a restaurant (IHOP) ping center to the north of the project site, across Peerless Avenue.
- Commercial/Professional businesses (NEK Insurance, UPS Store, El Cerrito Psychic Cottage), single-family residences, storage yards, vacant land, and a hotel (Mira Vista Berkeley North) to the east of the project site, across Eastshore Boulevard.
- Commercial businesses (e.g., Pet Vet Pet Food Supply) to the south of the project site, across Potrero Avenue.
- Residential land uses to the west of the project site, across I-80.

Existing Site Description

The existing site is 3.87 acres in size consists of a vacant commercial retail building totaling approximately 50,905 square feet in size (last occupied by Orchard Supply Hardware (OSH)), parking, and landscaping.

Proposed Project Layout and Design

The proposed project consists of a six-story apartment building with parking, landscaping, and public open space areas. The project features would occupy approximately 1.82 acres on the eastern and southern sides of 3.87-acre project site and would be constructed around the existing but vacant commercial building at the site. Refer to Attachment 2 for the project site plan (AO Architects, 2022).

The linear but irregularly shaped apartment building would be oriented in a north-south direction and run approximately 284-feet along the length of Eastshore Boulevard. The northern (near Peerless Avenue) and southern (near Potrero Avenue) ends of the building would expand towards the western side of the property. A public open space area would be located at the northern end of the site, at the intersection of Eastshore Boulevard and Peerless Avenue, and site access would occur via gated driveways that connect to Peerless Avenue and Eastshore Boulevard.

The multi-story building would have a ground-level footprint of approximately 37,862 square feet and a total building square footage of 219,622 square feet. The ground floor of the building would consist of bicycle and vehicle parking areas and residential support and amenity spaces such as an exercise room, leasing office, mail room, maintenance rooms, trash enclosures, etc. The 2nd through 6th stories would include 310 dwelling units, mostly studio units. The ground floor elevation would range from approximately 52 feet above mean sea level (AMSL) in the northern end of the building to 49.8 feet AMSL in the southern end of the building. Elevations for each floor are summarized in Table 1. The building roof would be located at 67.3 feet above grade. The total building height would reach 71 feet above grade at the top of the parapet and 79 feet above grade at the top of stair columns.

Table 1: Proposed Building – Finished Floor Elevations

Location	Approximate Finished Floor Elevation (Feet AMSL)					
	Ground (1st)	2nd	3rd	4th	5th	6th
North End of Building	52.0	64.7	75.6	86.5	97.4	108.3
Center of Building	51.1	63.8	74.7	85.6	96.5	107.4
South End of Building	49.8	62.5	73.4	84.3	95.2	106.1

Source: AO Architects, 2022, Sheet A5.0.

Exterior wall construction would consist of 7/8 inch (7/8") exterior plaster over two (2) layers of a water resistant barrier and metal lath, over ½" of exterior sheathing. Wood framing would consist of 2x6 wood studs spaced 16" on center with batt insulation. Interior walls would consist of 5/8" Type X gypsum board (AMG 2023). The project proposes Willamette brand windows and doors (Santiam Series) with a sound transmission class (STC) rating up to 36 dB. Windows would occupy less than 19% of the exterior wall surface area for all 2nd through 6th story wall façades facing San Pablo Avenue and I-80 (AO Architects, Sheets 6.2 and 6.3).

Project Construction

Project construction is anticipated to begin in the 3rd or 4th quarter of 2023 and take approximately two (2) years to complete. Construction activities would include site preparation, grading, building construction, paving, and architectural coating activities.

Noise-Sensitive Receptors

Noise-sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, hospitals, schools, and parks are examples of receptors and land uses that could be sensitive to changes in existing

environmental noise levels. The noise-sensitive receptors near the proposed project site include:

- The single-family residences located approximately 110 feet east of the Project site, across Eastshore Bouelvard (addressed at 11451 and 11457 San Pablo Avenue).[2]
- The Hotel Mira Vista Berkeley North located approximately 140 feet east of the project site (as measured to the hotel façade), across Eastshore Bouelvard (addressed at 6009 Potrero Avenue).

Other potential sensitive receptors are located farther away from the proposed project and do not have a direct line of sight to the project site due to existing features located between the project site and these noise-sensitive receptors. For example, residential land uses are located approximately 200 feet west of the project site, across the I-80. These receptors would be shielded from potential project noise sources by the presence of existing buildings and the I-80 road grade and are not discussed further in this study.

SPASP BACKGROUND

The City adopted the original SPASP and certified the corresponding original SPASP EIR (State Clearinghouse Number (SCH#) 2014042025) in October 2014. The 2014 SPASP EIR evaluated the potential environmental impacts associated with the development of 1,706 new residential units and 243,112 square feet of new commercial space within the Plan Area by 2040, stating (p. 1-5), “When and if these numbers are reached, regardless of the year they are reached, new environmental analysis, documentation, and determination pursuant to CEQA would need to be conducted.”

Between the adoption of the SPASP in 2014 and 2019, more than 1,400 residential units were entitled or proposed in the Plan Area, leaving only 282 units of development capacity, as evaluated in the 2014 EIR. The City, therefore, in 2019 initiated an update to the SPASP (“SPASP Update”) to facilitate the additional development of 2,500 dwelling units and 100,000 square feet of commercial space in the Plan Area, and evaluated the potential environmental impacts of this additional growth under CEQA in a Supplemental EIR, or SEIR (SCH# 2014042025). The El Cerrito City Council adopted the SPASP Update and the corresponding SPASP Update SEIR on December 6, 2022.

Both the 2014 SPASP EIR and the 2022 SPASP Update EIR evaluated the potential environmental effects associated with implementation of the SPASP, including effects resulting from changes in land uses envisioned under the SPASP and the corresponding changes in residential and non-residential building space (i.e., square footage), residents, and employment associated with potential land uses changes. Both EIR’s also incorporated, as necessary, mitigation measures to reduce and avoid potentially significant environmental effects.

A summary of the SPASP EIR’s mitigation measures and impact findings pertaining to noise and vibration is provided in Table 2. Refer to Attachment 3 for detailed information on the SPASP EIR’s thresholds of significance, mitigation measures, and noise and vibration impact determinations.

[2] Unless otherwise indicated, reported distances are the shortest distance between the project site boundary and the listed land use property line, road right-of-way, etc.

Table 2: Summary of SPASP EIR Noise and Vibration Impacts	
SPASP EIR Impact Finding	**SPASP EIR Mitigation Measure**
Impact 13-1: Noise and Land Use Compatibility. Residential land uses facilitated by the Specific Plan would be exposed to exterior noise levels exceeding 60 dBA L_{dn} from traffic noise and 70 dBA L_{dn} from BART [Bay Area Rapid Transit] noise. Future noise levels would exceed both El Cerrito's and Richmond's noise and land use compatibility guidelines. *Less than Significant Impact with Mitigation.*	Mitigation 13-1 (preparation of a project-specific noise compatibility analysis)
Impact 13-2: Commercial Development Noise. The San Pablo Avenue Specific Plan would introduce commercial uses adjacent to residential land uses. Specific tenants for the commercial uses have not been identified, but uses would probably include retail stores, grocery stores, restaurants, or cafes. New commercial development proposed along with or next to residential development could result in noise levels exceeding City standards. Typical noise levels generated by loading and unloading would be similar to noise levels generated by truck movements on local roadways. Mechanical equipment would also have the potential to generate noise and would be a potential noise impact. *Less than Significant Impact with Mitigation.*	13-2 (preparation of project-specific noise study for commercial developments)
Impact 13-3. Construction Noise. Businesses and residences would be intermittently exposed to high levels of noise throughout the 2040 plan horizon. Construction would elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or more. *Significant and Unavoidable Adverse Impact.*	13-3 (implementation of construction noise control measures)
Impact 13-4: Construction-related Vibration. Residences, businesses, and historic structures could be exposed to construction-related vibration during the excavation and foundation work of buildings. *Significant and Unavoidable Adverse Impact.*	13-4 (implementation of construction vibration control measures)

Table 2: Summary of SPASP EIR Noise and Vibration Impacts	
SPASP EIR Impact Finding	**SPASP EIR Mitigation Measure**
Project-Generated and Cumulative Traffic Noise. Specific Plan development would not result in a substantial increase in traffic noise levels above existing noise levels along area roadways. The Specific Plan would not make a "cumulatively considerable" contribution to noise levels that would be substantially increased as a result of cumulative growth in the area. *Less than Significant Impact*	None
Ground Vibration from BART Operations: Future development under the Specific Plan would not expose persons to excessive vibration from BART operations. *Less than Significant Impact.*	None

UPDATED ENVIRONMENTAL AND REGULATORY INFORMATION

The SPASP regulatory and environmental noise and vibration setting was originally presented in the 2014 EIR, Section 13.1.3 (pp. 13-6 to 13-10) and 13.2 (pp. 13-10 to 13-14), and updated in the 2022 SEIR, Section 13.1.3 (pp. 13-1 to 13-5) and 13.2 (pp. 13-5). The SPASP Update SEIR was issued for public review in July 2022 and subsequently certified by the City in December 2022. Given the short amount of time between EIR certification and the preparation of this study (less than three months), MIG assumes the noise and vibration setting information contained in the SPASP Update EIR has not changed. SPASP EIR environmental and regulatory setting information that is relevant to the proposed project is summarized below.

Environmental Setting

The SPASP EIR identifies that vehicle traffic on San Pablo Avenue and I-80 and BART trains as the predominant noise sources in the Plan Area. Both the 2014 EIR and the 2022 SEIR presented community noise survey information, including noise levels for the proposed project site (identified in the SPASP EIR as site "LT-4"). The SPASP EIR's community noise survey results are shown in Table 3.

Table 3: Summary of SPASP EIR Noise Monitoring at Project Site			
Date	**Duration**	**Hourly L_{eq} Range(A)**	**24-Hour L_{dn}(A)**
Thursday, 03/27/14 to Friday, 03/28/14	24-hours	65 – 76 dBA	75 dBA
Thursday, 09/02/21 to Friday, 09/03/21	24-hours	57 – 65 dBA	68 dBA

Source: City of El Cerrito 2014, p. 13-9, and 2022, p. 13-2

(A) The precise placement of the meter in 2014 is not known; however, the monitoring in 2014 and 2021 took place at the project site, approximately 160 feet (2014) and 150 feet (2021) from the centerline of I-80.

In addition to the community noise survey data, traffic noise modeling conducted for the SPASP EIR concluded future traffic noise levels 50 feet from the centerline of San Pablo Avenue would be 73.1 dBA L_{dn}, while future traffic noise levels 160 feet from the centerline of I-80 would be 75 dBA L_{dn} with a soundwall and 82 dBA L_{dn} (without a soundwall). Although the specific traffic volumes associated with the traffic noise modeling conducted for the SPASP EIR are not known, Caltrans' data indicates that I-80 traffic volumes were higher in 2014 than in 2018, 2019, and 2020, the most recent three years of traffic data available, as shown in Table 4. Updated

modeling of the I-80 traffic noise volumes using historical traffic volumes indicates I-80 traffic noise levels are 80 dBA at a distance of 160 feet where no sound wall is present. Refer to Attachment 4 for detailed traffic noise modeling results.

Table 4: I-80 Traffic Volumes and Noise Exposure at Project Site

Year	Average Daily Traffic Volume(A)	24-Hour Noise Exposure Level (L_{dn})(B)
2014	206,000	82 dBA(C)
2018	161,000	--
2019	161,000	--
2020	170,000	--
2023	206,000 (assumed)	79 dBA(C)

Source: Caltrans, 2023, City of El Cerrito 2014, Table 13-8, and MIG (see Attachment 4)

(A) Average daily traffic volumes are based on the peak monthly average daily traffic and truck volumes for the segment of I-80 adjacent to the project site (either El Cerrito – Potrero Avenue or Richmond – Junction 123 South).

(B) Noise exposure level is estimated 160 feet from the centerline of I-80, without a sound wall, and with no difference in grade between the highway and the receiver or shielding of any sort.

(C) Modeling for year 2020 and 2023 traffic volumes was conducted using the Federal Highway Administrations most recent Traffic Noise Model (version 3.1), which results in slightly different noise estimates than the SPASP EIR due to model improvements.

The SPASP EIR notes that there are no airports or private airstrips in the vicinity of the Plan Area that could result in the exposure of people living or working in the Plan Area to excessive noise levels from air transportation facilities.

Regulatory Setting

The SPASP EIR describes guidelines and regulations that are related to the exposure and control of noise and vibration, including City General Plan noise policies. A summary of key regulations that are described in the SPASP EIR and relevant to the proposed project is provided below.

City of El Cerrito General Plan

Goal H3: New development complies with the noise standards established in the General Plan, all new noise sources are within acceptable standards, and existing objectionable noise sources are reduced or eliminated.

- **H3.1: Noise Levels in New Residential Projects.** New residential development projects shall meet acceptable exterior noise level standards. The "normally acceptable" noise standards for new land uses are established in Table 7-1, Land Use Compatibility for Community Exterior Noise Environments, which shall be modified by Policies H3.2 through H3.12, below.
- **H3.2: Outdoor Noise Levels.** The goal for maximum outdoor noise levels in residential areas is an L_{dn} of 60 dB. This level is a requirement to guide the design and location of future development and is a goal for the reduction of noise in existing development. However, 60 L_{dn} is a goal that cannot necessarily be reached in all residential areas within the realm of economic or aesthetic feasibility. This goal will be applied where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). The outdoor standard will not normally be applied to the small decks associated with apartments and condominiums but these will be evaluated on a case-by-case basis. Where the city

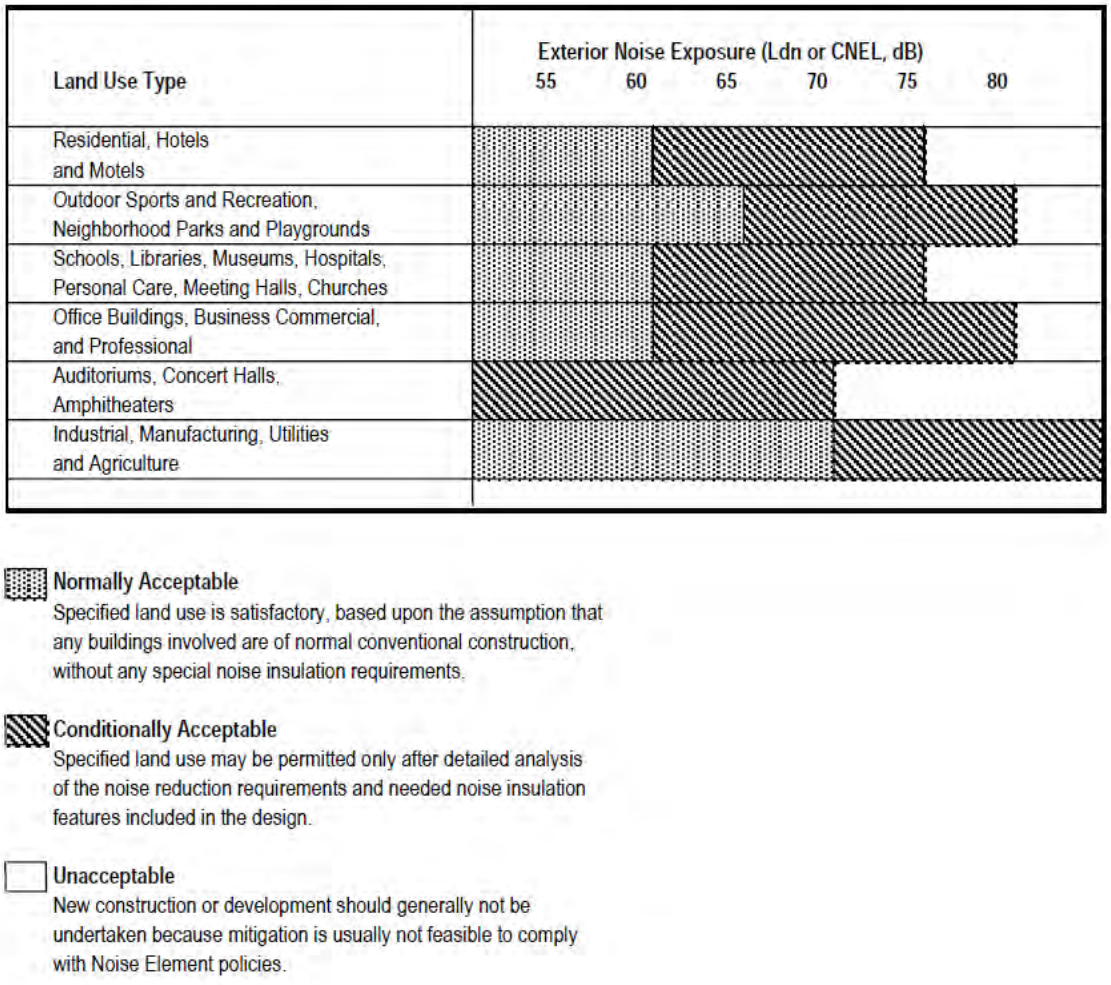
determines that providing and L_{dn} of 60 dB or lower outdoors is not feasible, the outdoor goal may be increased to an L_{dn} of 65 dB at the discretion of the Planning Commission.

- **H3.3: Indoor Noise Levels.** The indoor noise level as required by the State of California Noise Insulation Standards must not exceed an L_{dn} of 45 dBA in new housing units." As of January 1, 2014, the State of California Building Code no longer regulates interior noise levels in multi-family residential land uses. The intention of Policy H3.3 is to establish an acceptable interior noise limit in new multi-family dwellings. For the purposes of this analysis, the 45 dBA L_{dn} interior noise limit will be used in new housing developments.
- **H3.4: Indoor Instantaneous Noise Levels.** Interior noise levels in new single-family and multi-family residential units exposed to an L_{dn} of 60 dB or greater should be limited to a maximum instantaneous noise level in the bedroom of 50 dBA. Maximum instantaneous noise levels in other rooms should not exceed 55 dB. The typical repetitive maximum instantaneous noise level at each site would be determined by monitoring. Examples would include truck passbys on busy streets, BART passbys and train warning whistles.
- **H3.5: Impacts of BART Noise.** If the noise source is BART, then the outdoor noise exposure criterion should be 70 L_{dn} for future development, recognizing that BART noise is characterized by relatively few loud events.
- **H3.6: New Commercial, Industrial and Office Noise Standards.** Appropriate interior noise levels in commercial, industrial, and office buildings are a function of the use of space and shall be evaluated on a case-by-case basis. Interior noise levels in offices generally should be maintained at 45 dBA L_{eq} (hourly average) or less.
- **H3.7: Areas Below Desired Noise Standards.** These guidelines are not intended to be applied reciprocally. In other words, if an area currently is below the desired noise standards, an increase in noise up to the maximum should not necessarily be allowed. The impact of a proposed project on an existing land use should be evaluated in terms of the increase in existing noise levels and potential for adverse community impact, regardless…[sic]
- **H3.8: Non-Transportation Related Noise Sources.** For non-transportation related noise sources, noise levels outdoors should not exceed the limits in the table above. Interior noise levels shall be 15 decibels lower than those shown in the table.
- **H3.9: Noise Environment in Existing Residential Areas.** Protect the noise environment in existing residential areas. In general, the City will require the evaluation of mitigation measures for projects under the following circumstances:
  - The project would cause the L_{dn} to increase 3 dBA or more.
  - Any increase would result in an L_{dn} greater than 60 dBA.
  - The L_{dn} already exceeds 60 dBA.
  - The project has the potential to generate significant adverse community response.
- **H3.10: Mitigating the Effects of Noise on Adjacent Properties.** Require proposals to reduce noise impacts on adjacent properties by incorporating appropriate measures into the project.
- **H3.11: Commercial or Industrial Source Noise.** Noise created by commercial or industrial sources associated with new projects or developments shall be controlled so as not to exceed the noise level standards set forth in the table below (Maximum

Allowable Noise Exposure for Stationary Noise Sources), as measured at any affected residential land use.

General Plan Table 7-1 referenced in Policy H3.1 is reproduced as Figure 2 below, and the stationary noise source standards references in Policy H3.11 are reproduced as Table 5 below.

Figure 2 : Land Use Compatibility for Community Noise Environments



Source: City of El Cerrito 1999, Figure 7-1

Table 5: Maximum Allowable Noise Exposure for Stationary Noise Sources[A]

Noise Metric	Daytime (7 AM to 10 PM)[D]	Nighttime (10 PM to 7 AM)[B], [D]
Hourly L_{eq}, dB[C]	55	45
Maximum Level, dB[C]	70	65
Maximum Level, dB[D] (Impulsive Noise)	65	60

Source: City of El Cerrito, 1999, p. 7-24

(A) As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.
(B) Applies only where the receiving land use operates or is occupied during nighttime hours.
(C) Sound level measurements shall be made with "slow" meter response.
(D) Sound level measurements shall be made with "fast" meter response.
(E) Allowable levels shall be raised to the ambient noise levels where the ambient levels exceed the allowable levels.

NOISE AND VIBRATION ANALYSIS

The 2014 SPASP EIR states (pp. 1-4 to 1-5):

> "This EIR has been prepared as a program EIR. A program EIR is a type of EIR authorized by section 15168 (Program EIR) of the CEQA Guidelines for use in documenting the environmental impacts of community general plans, redevelopment plans, specific plans, precise plans, and other planning "programs." As explained in the CEQA Guidelines, a program EIR is useful in evaluating the potential environmental impacts of a project that involves a series of interrelated actions that can reasonably be characterized as a single project. The approach taken in preparing this EIR under the program EIR authority has been to describe the anticipated Plan area-wide and community-wide impacts of the San Pablo Avenue Plan . . .Such impacts are described at a level of detail consistent with the level of detail provided in the proposed Specific Plan. Pursuant to CEQA, this program EIR evaluates the Specific Plan-related impacts and mitigation needs that can be identified at this time. The more detailed impacts of future individual, site-specific development and infrastructure projects that may be undertaken in accordance with the Specific Plan, but which are not proposed at this time and therefore are not yet described in sufficient detail, are not considered in this program EIR; rather, the CEQA-required environmental review of such subsequent individual actions would be undertaken at a later time, if and when such proposals come before the respective jurisdictional City in the form of a site-specific development application or improvement project. At that time, when the details of the individual action are sufficiently defined, the action would be subject to its own, project-specific environmental determination by the City, in compliance with CEQA requirements."

As explained above, MIG has prepared this study to evaluate whether the proposed project will result in noise and vibration impacts that were not fully evaluated in the SPASP EIR. With regards to this evaluation MIG notes:

- The proposed project is consistent with the City's underlying Zoning Code classification and General Plan land use designation for the Project site and therefore, would not result in land use changes, population growth, or employment growth that exceeds SPASP EIR assumptions.
- The SPASP EIR's general discussions and evaluations of potential noise and vibration impacts, as well as the applicability and effectiveness of SPASP EIR mitigation measures, are considered directly relevant and applicable to the proposed project.

This study applies the SPASP EIR's thresholds of significance for the proposed project's noise and vibration analysis. Refer to Attachment 3 for these thresholds of significance.

Noise Compatibility (New Noise-Sensitive Land Uses)

This section discusses whether the proposed project would result in noise compatibility impacts for new, noise-sensitive land uses that were not fully evaluated in the SPASP EIR.

Summary of Plan RC Program EIR Noise Compatibility Impact Analysis

SPASP EIR Impact 13-1 evaluated the potential for new residential development envisioned by the SPASP to be exposed to noise levels that exceed the City's noise and land use compatibility standards, including exterior traffic noise levels above 60 dBA L_{dn}, exterior BART noise levels above 70 dBA L_{dn}, and interior noise levels above 45 dBA L_{dn}. The EIR also evaluated the potential of new residential development to be exposed to single event noise levels from BART

passbys and truck passbys that would exceed the City's instantaneous noise guideline of 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms. The SPASP EIR found that new development could potentially occur in close proximity to existing high volume roadways and BART service and, therefore, be exposed to potentially incompatible noise levels. The SPASP EIR, therefore, found the potential exposure of new noise-sensitive land uses to incompatible noise levels would be a potentially significant impact.

The SPASP EIR identified that the City has existing policies that reduce adverse environmental impacts. For example, General Plan Policies H3.1, H3.2 and H3.9 requires the evaluation of project-specific measures to achieve the City's noise and land use compatibility guidelines (see Figure 2). The SPASP EIR also included Mitigation 13-1, which requires SPASP development projects that are exposed to exterior noise levels that exceed acceptable standards to use site design measures to minimize noise in outdoor activity areas and prepare a project-specific acoustical analysis that identifies the sound insulation requirements (e.g., sound rated windows) needed to achieve interior noise levels of 45 dBA Ldn or lower, and 50 dBA L_{max} (bedrooms) or 55 dBA L_{max} (other rooms) for instantaneous events.

The SPASP EIR concluded that implementation of General Plan noise policies and Mitigation 13-1 would ensure that existing and future residences in the Plan Area, as well as other noise-sensitive land uses in the Plan Area, would not be exposed to excessive noise from commercial development. This impact was considered less than significant with mitigation.

Eastshore Boulevard Apartments Project Noise Compatibility – Exterior Noise Levels

The proposed project would result in the placement of a new residential building adjacent to the I-80 corridor and San Pablo Avenue. The new building would include exterior public open space in the northeastern corner of the site but would not include other exterior use areas or private balconies.

As discussed above and shown in Table 4, the SPASP EIR includes estimates of traffic noise levels at 50 feet from the center of San Pablo Avenue and 160 feet from the center of I-80; however, based on the project's conceptual site plan, the proposed project's building façades would be closer to I-80 and farther away from San Pablo Avenue than these distances. The vacant commercial building at the project site (see Figure 1), as well as differences in elevation between I-80 and the project site's finished floor elevations (see Table 1), also influence traffic noise exposure by reflecting some noise towards some parts of the proposed building while blocking noise transmission to other parts. Table 6 below summarizes the traffic noise exposure levels modeled for the proposed project based on site- and project-specific characteristics. Refer to Attachment 4 for detailed traffic noise modeling results.

Table 6: Project Traffic Noise Exposure Levels				
Road / Project Feature	**Public Open Space**	**North Building Section Façade**	**Central Building Section Façade**	**South Building Section Façade**
San Pablo Avenue				
Distance to Road Centerline (Feet)	100	160 to 197	216 to 328	390
Exterior Traffic Noise (dBA L_{dn})	70.0 dBA	67.0 to 68.0	64.8 to 66.6	64.1
Exterior Noise Goal (dBA L_{dn})	--(A)	60	60	60
Exterior Noise Goal Exceeded?	No	Yes(B)	Yes(B)	Yes(B)
I-80				
Distance to Road Centerline (Feet)	--	336 to 372	250 to 334	130 to 215
Exterior Traffic Noise (dBA L_{dn})	--	71.9 to 75.8	73.9 to 76.7	75.9 to 80.9
Exterior Noise Goal (dBA L_{dn})	--	60	60	60
Exterior Noise Goal Exceeded?	--	Yes(B)	Yes(B)	Yes(B)

Source: MIG (see Attachment 4)

(A) This project feature is not a specific, shared recreation or outdoor use space for use by the project and is assumed to not be subject to the City's exterior noise standards for shared recreation spaces in multi-family development.

(B) Noise levels above the exterior standard may require mitigation in the form of barriers (to meet exterior noise standards) and/or building sound insulation to meet interior noise standards.

As shown in Table 6, the proposed project would be exposed to elevated traffic noise levels as follows:

- **Public Open Space Element:** The public open space element located in the northeast corner of the project site could be exposed to future San Pablo Avenue traffic noise levels up to 70 dBA L_{dn}. The public space element includes a series of curved, split face concrete masonry unit (CMU) block walls between four (4) and six (6) feet in height that would reduce noise levels in this area by up to 5 dBA in turf areas immediately adjacent to the block wall, resulting in noise levels of approximately 65 dBA L_{dn}. This area also includes a water feature that could serve to mask traffic noise levels.

  The public open space element included in the project is a requirement of the SPASP and has been designed consistent with Eastshore Boulevard's designation as a "Gateway Street" in the SPASP. The open space element is required, in part, to buffer pedestrians from traffic noise and soften the feel of busy streets. It is not a shared recreation or outdoor area for use specifically and solely by the apartment complex (i.e., it is akin to an extension of the public right-of-way where standards would not apply). This study assumes, therefore, that City's 60 dBA L_{dn} standard for shared recreational areas does not apply to the proposed project's public open space element. Nonetheless, it is noted that SPASP EIR and General Plan Policy H3.2 identify 60 dBA L_{dn} as the "goal for maximum outdoor noise levels in residential areas . . . However, 60 L_{dn} is a goal that

cannot necessarily be reached in all residential areas within the realm of economic or aesthetic feasibility. This goal will be applied where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects) . . . Where the City determines that providing an L_{dn} of 60 dBA or lower outdoors is not feasible, the outdoor goal may be increase to an L_{dn} of 65 dBA at the discretion of the Planning Commission." As noted above, the CMU walls included in the public open space element would achieve a 65 dBA L_{dn} noise level within a portion of the public open space element, consistent with General Plan Policy H.3.2.

- **Exterior Building Facades:** All exterior building facades would be exposed to noise levels above 60 dBA L_{dn}, with the highest noise exposure (80.9 dBA L_{dn}) occurring at the 2nd story level in the southern part of the apartment building. Consistent with the SPASP EIR and City General Plan Policy H3.1, exterior noise exposure levels above 60 dBA L_{dn} would be conditionally acceptable provided interior noise levels meet City standards. See "Eastshore Boulevard Apartments Project Noise Compatibility – Interior Noise Levels" for detailed analysis on the proposed project's interior noise levels.

Eastshore Boulevard Apartments Project Noise Compatibility – Interior Noise Levels

As shown in Table 6, the proposed project's exterior building façades would be exposed to exterior noise levels between 64.1 dBA L_{dn} and 80.9 dBA L_{dn}, with the highest traffic noise exposure occurring in the 2nd floor corner dwelling units in the south building section, located closest to I-80. In addition, based on ambient noise monitoring conducted for the SPASP EIR, the typical repetitive maximum instantaneous noise levels (L_{max}) in the vicinity of the proposed project are assumed to be up to 85 dBA L_{max} at all building façade locations.

The 2014 SPASP EIR states, "Typical construction required in California provides approximately 15 dBA of noise reduction from exterior noise sources with windows partially open, and approximately 25 dBA of noise reduction with windows kept closed. Where exterior noise levels do not exceed 70 dBA Ldn, interior noise can be mitigated with standard wall and window construction and the inclusion of mechanical forced-air ventilation, subject to local building department requirements, to allow occupants the option of maintaining windows closed to control noise. Where exterior noise levels exceed 70 dBA L_{dn}, residential units would not normally be able to meet the 45 dBA L_{dn} interior standard through typical construction methods."[3]

The proposed project's exterior wall design would include features that would provide greater exterior-to-interior noise reduction than the general assumption contained in the SPASP EIR. For example, the proposed project's exterior wall design would include 7/8" stucco, which has a higher STC rating than wood siding, on top of ½" sheathing (additional massing that increases noise reduction), and 2x6 studs instead of 2x4 studs (increases the width of the airspace in the wall cavity, batt insulation, and noise reduction). Reference data published by the U.S. Federal Highway Administration indicates this type of exterior wall design would have a minimum exterior-to-interior noise reduction of 37 dB. The proposed project would not include any exterior façade doors; however, windows are estimated to occupy between 4% and 18% of each individual dwelling units exterior façade wall surface area and would provide less exterior-to interior noise reduction than the exterior wall assembly, thereby reducing the overall exterior-to-

[3] The SPASP EIR does not define "typical construction"; however, for the purposes of this study, "typical construction" techniques capable of achieving a minimum exterior to interior noise reduction of 15 dBA (with windows open) to 25 dBA (with windows closed) include a basic framed wall with a sound transmission class (STC) rating of 39, consisting of 5/8" siding, ½" insulation board sheathing, 2"x4" studs spaced every 16", standard fiberglass insulation, and ½" drywall; windows and doors are rated STC 27 and occupy no more than 50% of the exterior wall area.

interior noise reduction of the building façade. The estimated amount of interior-to-exterior noise reduction needed to comply with City standards is summarized in Table 7 and Table 8.

Table 7: Project Exterior-to-Interior Noise Requirements (L_{dn})

Distance from Road Center and Dwelling Unit Type	Exterior Facade Noise Level (L_{dn})(A)	Interior Noise Compatibility Goal (L_{dn})	Noise Reduction Needed (dB)
Facing San Pablo Avenue (East Façades)			
160 Feet – Studio	71	45	26
160 Feet – Corner Studio	71	45	26
197 Feet - Studio	70	45	25
216 Feet – Studio	70	45	25
267 Feet - Studio	69	45	24
328 Feet – Studio	68	45	23
390 Feet – Studio	67	45	22
390 Feet - Corner Studio	67	45	22
390 Feet – Apartment Bedroom	67	45	22
390 Feet – Apartment Living Room	67	45	22
Facing I-80 (North, South, and West Facades)			
130 Feet – Studio	81.1 – 83.9	45	36.1 – 38.9
130 Feet – Corner Studio	81.1 – 83.9	45	36.1 – 38.9
135 Feet – Studio	80.9 – 83.7	45	35.9 – 38.7
140 Feet – Apartment Bedroom	80.7 – 83.5	45	35.7 – 38.5
140 Feet – Apartment Living Room	80.7 – 83.5	45	35.7 – 38.5
215 Feet – Studio Bedroom	78.9 – 81.7	45	33.9 – 36.7
215 Feet – Studio Living Room	78.9 – 81.7	45	33.9 – 36.7
250 Feet – Studio	78.2 – 79.7	45	33.2 – 34.7
277 Feet – Studio	77.7 – 79.2	45	32.7 – 34.2
285 Feet – Studio	77.6 – 79.1	45	32.6 – 34.1
334 Feet – Studio	76.9 – 78.4	45	31.9 – 33.4
334 Feet – Corner Studio	75.3 – 78.8	45	30.3 – 33.8
336 Feet – Studio	75.3 – 78.8	45	30.3 – 33.8
372 Feet – Studio	74.9 – 78.4	45	29.9 – 33.4

Source: MIG (see Attachment 4)

(A) A +3 dBA increase to modeled exterior traffic noise levels (see Table 6) to account for façade reflection. Traffic noise levels at east façades facing San Pablo Avenue are assumed to be the same at each dwelling unit level. Traffic noise levels at north, south, and west façades facing I-80 vary slightly by dwelling unit level.

Table 8: Project Exterior-to-Interior Noise Reduction Requirements (L_{max})			
Distance from Road Center and Dwelling Unit Type	**Exterior Facade Noise Level (L_{max})(A)**	**Interior Noise Compatibility Goal (L_{max})**	**Noise Reduction Needed (dB)**
Facing San Pablo Avenue (East Façades)			
160 Feet – Studio	85	50	35
197 Feet - Studio	85	50	35
216 Feet – Studio	85	50	35
267 Feet - Studio	85	50	35
328 Feet – Studio	85	50	35
390 Feet – Studio	85	50	35
390 Feet – Apartment Bedroom	85	50	35
390 Feet – Apartment Living Room	85	55	30
Facing I-80 (North, South, and West Facades)			
130 Feet – Studio	85	50	35
135 Feet – Studio	85	50	35
140 Feet – Apartment Bedroom	85	50	35
140 Feet – Apartment Living Room	85	55	30
215 Feet – Studio Bedroom	85	50	35
215 Feet – Studio Living Room	85	55	30
250 Feet – Studio	85	50	35
277 Feet – Studio	85	50	35
285 Feet – Studio	85	50	35
334 Feet – Studio	85	50	35
336 Feet – Studio	85	50	35
372 Feet – Studio	85	50	35

Source: MIG (see Attachment 4)

(A) The typical repetitive maximum instantaneous noise levels is based on ambient noise monitoring data from the SPASP EIR.

As shown in Table 7 and Table 8, the proposed project would require between 22 dB to 38.9 dB of exterior-to-interior noise reductions to achieve compliance with interior noise standards. For most dwelling units, the level of exterior-to-interior noise reduction necessary to comply with City standards is higher for instantaneous (L_{max}) standards, except for studio and apartments in the south building section within 215 feet of the I-80 centerline.

Consistent with Mitigation 13-1, project-specific noise compatibility recommendations are provided below for 2nd to 6th story dwelling units. Exterior-to-interior noise reductions were calculated using Federal Highway Administration (FHWA) guidance for exterior wall noise reduction ratings, window noise reduction ratings, project-specific dwelling unit wall surface area and volume characteristics, and reference room absorption coefficients for studio, corner studio, studio bedroom and living room, and apartment bedroom and living room units (FHWA, 2023). Refer to Attachment 5 for exterior-to interior noise attenuation calculations and the location of mitigation recommendations. Ground level building space would not have a direct line of sight to

I-80. Occupiable ground level space would generally be limited to the northeast corner of the site where the leasing office and exercise room would be located. Exterior noise levels in these areas would be between 65 dBA L_{dn} and 70 dBA L_{dn}, which is above the 65 dBA L_{dn} noise limit identified in the SPASP EIR. Although exterior noise levels would be above 65 dBA L_{dn}, interior noise levels would be less than 55 dBA on an hourly, daily, and maximum basis with standard exterior-to-interior noise reductions.

Mitigation 13-1: The Project shall incorporate the following noise attenuation measures into the final project design:

1) Wall assembly. Except as modified in Section 5 below, exterior walls shall consist of 7/8" stucco over 2 layers of water- resistant barrier, over ½ metal lath, over ½" sheathing, over 2x6 studs spaced 16 inches apart on center, over ½" gypsum board, with 3 ½" inch batt insulation (minimum R-13) installed in the wall cavity.
2) Provide mechanical ventilation. The project will require forced air mechanical ventilation to permit occupancy of units with windows open or closed at the discretion of the occupants.
3) Window sound transmission class (STC) ratings. To ensure exterior wall assemblies provide exterior to interior noise reductions needed that achieve daily noise exposure (45 dBA L_{dn}) and maximum instantaneous (50 dBA L_{max} in bedrooms / 55 dBA L_{max} in other rooms), window assemblies shall consist of:
    a. North Building Section
        i. Windows shall have an STC rating of 32 dBA or higher.
    b. Central Building Section
        i. Windows shall have an STC rating of 32 dBA or higher.
    c. South Building Section
        i. Dwelling units with any portion of their exterior façade within 140 feet of the centerline of I-80 shall incorporate windows with an STC rating of 36 dBA or higher.
        ii. All other dwelling units shall have an STC rating of 32 dBA or higher.
4) Window assemblies: All window assemblies shall be well fitted, sealed, and weather-stripped. Window assemblies (perimeter of assembly, any gaps during assembly installation) shall be sealed with an acoustical caulk/sealant to reduce noise.
5) Enhanced Wall Assembly Construction. To ensure exterior wall assemblies in the south building section provide exterior to interior noise reductions that achieve daily noise exposure (45 dBA L_{dn}) and maximum instantaneous (50 dBA L_{max} in bedrooms / 55 dBA L_{max} in other rooms), the following enhanced wall assemblies shall be used for any 2nd to 6th floor exterior wall assemblies with all or part of the wall assembly within 140 feet of the centerline of I-80:
    a. Studios with 1 exterior wall and apartment living rooms shall use 24-inch stud spacing, or incorporate the design measures listed in b.i to b.iii below.
    b. Corner studios with 2 exterior walls and apartment bedrooms shall:
        i. Install fiberboard beneath the ½" exterior sheathing/stucco and ½" interior gypsum board; and
        ii. Studs shall be staggered/alternated in their attachment to exterior and interior wall panels; or

iii. Metal channel studs shall be employed in wall construction.

The implementation of the noise exposure control measures above would provide a minimum of 5 dBA additional exterior-to-interior noise reduction and reduce exterior and interior noise to levels that comply with the City's interior noise exposure standard (45 L_{dn}), as shown in Table 9. Since Mitigation 13-1 would achieve a minimum 35 dB reduction in all dwelling units, compliance with the City's instantaneous (L_{max}) standards in bedrooms (50 dBA L_{max}) and other rooms (55 dBA L_{max}) would also be achieved (i.e,. 85 dBA L_{max} – 35 db = 50 dBA L_{max} in all rooms).

Table 9: Mitigated Project Interior Noise Levels(A)

Distance from Road Center and Dwelling Unit Type	Exterior Facade Noise (L_{dn})(B)	Noise Reduction with Mitigation 13-1 (dB)(C)	Interior Noise Level (L_{dn})(D)
Facing San Pablo Avenue (East Façades)			
160 Feet – Studio	71	36	35
160 Feet – Corner Studio	71	35	36
197 Feet - Studio	70	35	35
216 Feet – Studio	70	38	32
267 Feet - Studio	69	38	31
328 Feet – Studio	68	38	30
390 Feet – Studio	67	38	29
390 Feet - Corner Studio	67	35	32
390 Feet – Apartment Bedroom	67	37	30
390 Feet – Apartment Living Room	67	38	29
Facing I-80 (North, South, and West Facades)			
130 Feet – Studio	81.1 – 83.9	39 – 43	37.8 – 44.9
130 Feet – Corner Studio	81.1 – 83.9	39 – 40	41.1 – 44.9
135 Feet – Studio	80.9 – 83.7	39 – 43	37.9 – 44.7
140 Feet – Apartment Bedroom	80.7 – 83.5	41 – 42	38.7 – 42.5
140 Feet – Apartment Living Room	80.7 – 83.5	41 – 42	38.7 – 42.5
215 Feet – Studio Bedroom	78.9 – 81.7	37	41.9 – 44.5
215 Feet – Studio Living Room	78.9 – 81.7	38	40.9 – 43.7
250 Feet – Studio	78.2 – 79.7	37	41.2 – 42.7
277 to 384 Feet – Studio	76.9 – 79.2	37	39.9 – 42.2
334 Feet – Corner Studio	75.3 – 78.8	35	40.3 – 43.8
336 Feet – Studio	75.3 – 78.8	36	39.3 – 42.8
372 Feet – Studio	74.9 – 78.4	36	38.9 – 42.4

Source: MIG (see Attachment 4)
(A) All noise levels in this table are A-weighted values (i.e., dBA).
(B) See Table 8.
(C) Noise reduction reflects the value or range in values from design measures outlined in Mitigation 13-1.
(D) Interior noise level is based on exterior noise level minus noise reductions from Mitigation 13-1.

Project Consistency with Plan RC Program EIR Noise Compatibility Impact Findings

The project-specific noise compatibility analysis presented above is consistent with the findings of SPASP EIR Impact 13-1. The proposed project would be exposed to potential exterior and interior noise levels that could exceed City standards for residential projects. The incorporation of sound attenuation measures into the Project that were envisioned by, and are consistent with, SPASP EIR Mitigation 13-1 would reduce exterior and interior noise exposure at all residential units to levels that meet City standards. The proposed project, therefore, would not result in a new or substantially more severe impact than identified in the SPASP EIR.

Commercial Development Noise (SPASP EIR Impact 13-2)

This section discusses whether the proposed project would result in commercial uses that could generate noise levels in residential areas that exceed City standards.

Summary of SPASP EIR Commercial Development Noise Impact Analysis

SPASP EIR Impact 13-2 evaluated potential increases in commercial noise at noise-sensitive land uses, such as noise from loading and unloading activities, waste collection, heating, ventilation, and air conditioning (HVAC) and other mechanical equipment, and emergency backup generators. The SPASP EIR identified that the new commercial development proposed along with or next to residential development could result in noise levels that exceed City noise standards and, therefore, found potential commercial development noise levels would be a potentially significant impact.

The SPASP EIR identified that the City has existing policies that reduce adverse environmental impacts. For example, General Plan Policy H3.11 states that noise created by commercial or industrial sources associated with projects or developments shall be controlled to not exceed the City's maximum allowable noise exposure for stationary noise sources (see Table 5), as measured at any affected residential land use. The SPASP EIR also included Mitigation 13-2, which requires new commercial development proposed in the same building as or adjacent to residential development to prepare a noise study demonstrating how the business would meet City standards and limits noise-generating activities to the hours of 7 AM to 9 PM (see Attachment 3).

The SPASP EIR concluded that implementation of General Plan Policy H3.11 and Mitigation 13-2 would ensure that existing and future residences in the Plan Area, as well as other noise-sensitive land uses in the Plan Area, would not be exposed to excessive noise from commercial development. This impact was considered less than significant with mitigation.

Eastshore Boulevard Apartments Project Commercial Noise Impact Analysis

The proposed project is envisioned as a vibrant residential apartment community with local amenities. The project does not involve commercial or industrial development activities that could generate noise levels that exceed City standards. The project is adjacent to a vacant commercial building; however, the potential redevelopment or re-occupancy of the vacant commercial building is not within the scope of this analysis and the future use of this building for commercial purposes would be subject to compliance with City General Plan Policy H3.11 and SPASP EIR Mitigation 13-2 if and when the building is proposed for reuse.

Project Consistency with SPASP EIR Commercial Development Noise Impact Findings

The project-specific commercial development noise analysis presented above is consistent with the findings of SPASP EIR Impact 13-2. The proposed Project does not involve commercial or industrial development that could generate stationary or other noise levels at noise-sensitive land uses that exceed City standards and, therefore, would not constitute a new or substantially more severe impact than identified in the SPASP EIR.

Construction Noise (SPASP EIR Impact 13-3)

This section discusses whether the proposed project would result in any temporary construction noise impacts that were not fully evaluated in the SPASP EIR.

Summary of SPASP EIR Construction Noise Impact Analysis

SPASP EIR Impact 13-3 evaluated temporary construction noise associated with future development projects implemented under the SPASP. The EIR identified that construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), in close proximity to noise-sensitive land uses, and/or last for an extended period. The EIR also identified that the highest construction noise levels would be generated during grading and excavation, with lower noise levels occurring during building construction; potential noise levels associated with earth moving equipment such as graders, scrapers, and bulldozers were anticipated to be up to 85 dBA L_{max} to 90 dBA L_{max} at 50 feet, while pile driving equipment was estimated to produce noise levels up to 105 dBA L_{max} at 50 feet. The EIR concluded that construction activities could increase local noise levels at businesses and residences near construction areas by 15 to 20 dBA or higher. The SPASP EIR, therefore, found construction noise levels would be a potentially significant impact.

To reduce potential noise generated by construction activities, the SPASP EIR included Mitigation 13-3, which requires construction equipment to be well-maintained and used judiciously to be as quiet as practical. Mitigation 13-3 also requires SPASP development projects to implement 11 discrete construction noise control measures including, but not limited to, use of quiet models of certain equipment, idling restrictions, installation of plywood fences around construction sites, limiting construction activities to the hours of 7 AM to 7 PM on weekdays and 9 AM to 8 PM on weekends and holiday, and notification of adjacent land uses of planned construction activities. Although Mitigation 13-3 would reduce noise generated by construction, the SPASP EIR concluded that businesses and residents in the Plan Area could be exposed to construction noise for extended periods of time. The SPASP EIR, therefore, concluded temporary construction noise levels associated with the implementation of the SPASP would be a significant and unavoidable impact even with Mitigation 13-3. No other feasible mitigation measures for reducing temporary construction noise levels were identified in the SPASP EIR.

Eastshore Boulevard Apartments Project Construction Noise Impact Analysis

The proposed project would generate construction noise from the following sources:

- Heavy equipment operations throughout the project area. Some heavy equipment would consist of mobile equipment such as a loader, excavator, etc. that would move around work areas; other equipment would consist of stationary equipment (e.g., air compressors) that would generally operate in a fixed location until work activities are complete. Heavy equipment generates noise from engine operation, mechanical systems and components (e.g., fans, gears, propulsion of wheels or tracks), and other sources such as back-up alarms. Mobile equipment generally operates at different loads, or power outputs, and produce higher or lower noise levels depending on the operating load. Stationary equipment generally operates at a steady power output that produces a constant noise level.
- Vehicle trips, including worker, vendor, and haul truck trips. These trips would occur on the roads that provide access to the project site, primarily San Pablo Avenue, Eastshore Boulevard, Peerless Avenue, and Potrero Avenue.

Since project-specific construction equipment information is not available at this time, potential construction-related noise impacts can only be evaluated based on the typical construction

activities associated with mid- and high-rise residential development project. Potential construction source noise and vibration levels were developed based on methodologies, reference noise levels, typical equipment usage, and other operating factors documented and contained in the Federal Highway Administration's (FHWA) Construction Noise Handbook (FHWA 2006), Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2020).[4] These sources of information and the methodology used to estimate potential construction noise levels is consistent with the analytical methodology described in Impact 13-3 of the SPASP EIR.

During site preparation (2 days), grading (4 days), and paving (5 days) activities construction equipment would operate throughout the site, moving closer to one property line and farther away from another; building construction (23 months) and architectural coating (10 days) activities would be concentrated in building pad areas located throughout the site. The project would not involve pile driving activities. Maximum noise levels would occur during periods of heavy equipment operations such as site preparation, grading, and paving work. Once building construction begins, work activities would occur further from property lines, require less heavy-duty equipment (e.g., grader), and generate lower construction noise levels.

As described in the SPASP EIR, typical construction equipment can generate noise levels of 85 dBA L_{max} to 90 dBA L_{max} at 50 feet. At an active construction site, it is not uncommon for two or more pieces of construction equipment to operate in the same area at the same time, which could increase potential noise levels. Most adjacent land uses would be further than 50 feet away from project construction activities. Table 6 presents the estimated, worst-case noise levels that could occur from operation of construction equipment at adjacent land uses. Refer to Attachment 6 for construction noise estimates.

Table 10: Estimated Project Construction Noise Levels at Adjacent Land Uses

Receptor	Distance From Project Construction(A)	Estimated Exterior Noise Level (dBA L_{eq})(B)
Commercial facilities (across Peerless Avenue)	50 feet	85
Commercial facilities (across Eastshore Boulevard)	130 feet	77
Single-family residences (across Eastshore Boulevard)	110 feet	78
Hotel (across Eastshore Boulevard)	140 feet	76
Commercial facilities (across Potrero Avenue)	270 feet	70

Source: MIG 2023 (see Attachment 6)

(A) Distance is based on the closest point between the proposed project area and the residential property line / non-residential building façade.

(B) Estimated noise levels assume the simultaneous operation of two of the loudest pieces of construction equipment (e.g., bull dozers) operating at the boundary of the project site.

As shown in Table 10, estimated noise levels from project construction could be up to 85 dBA L_{eq} at the commercial plaza across Peerless Avenue, 78 dBA L_{eq} at residential land uses across Eastshore Boulevard, and 77 dBA L_{eq} or less at all other adjacent land uses when multiple pieces of equipment are operating near the edge of the Project site. These noise levels would be approximately 5 dBA L_{eq} to 24 dBA L_{eq} above the measured ambient noise level at the

[4] Reference levels are noise emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

project site. It is noted these noise levels are not anticipated to occur through the entire course of a construction day, as construction equipment and activities rarely operate continuously for a full day at a construction site, especially near the Project boundary. Typically, the operating cycle for construction equipment would involve one or two minutes followed by three or four minutes at lower power settings. It is also noted that worst-case noise levels are expected to occur for only approximately 1 to 4 months of the project's 24-month construction schedule.

To reduce construction noise levels, the project would incorporate and comply with SPASP EIR Mitigation 13-3, as follows:

> **Mitigation 13-3.** Construction equipment shall be well maintained and used judiciously to be as quiet as practical. The following measures, when applicable, are recommended to reduce noise from construction activities:
>
> 1) Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for the equipment.
> 2) Utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
> 3) Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
> 4) Prohibit unnecessary idling of internal combustion engines.
> 5) Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile. *Note: Pile driving is not currently proposed as part of project construction activities.*
> 6) Construct solid plywood fences around construction sites adjacent to operational business, residences, or noise-sensitive land uses.
> 7) A temporary noise control blanket barrier could be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
> 8) Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
> 9) Ensure that construction activities (including the loading and unloading of materials and truck movements) are limited to the hours of 7:00 AM to 7:00 PM on weekdays and between the hours of 9:00 AM and 8:00 PM on weekends and holidays.
> 10) Ensure that excavating, grading, and filling activities (including warming of equipment motors) are limited to between the hours of 7:00 AM to 7:00 PM on weekdays and between the hours of 9:00 AM and 8:00 PM on weekends and holidays.
> 11) Businesses, residences, or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. Designate a "construction liaison" who would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

The implementation of the construction noise control measures, including the installation of a standard four (4)- to six (6)-foot-tall temporary plywood noise barrier, would reduce construction noise levels by a minimum of 5 to 10 dBA at adjacent land uses, depending on the distance

between construction equipment, the noise barrier, and the adjacent land uses; however, even with the implementation of these control measures, construction noise levels could temporarily be up to 20 dBA higher than ambient noise levels for extended periods of time (up to four months).

Project Consistency with SPASP EIR Construction Noise Impact Findings

The Project-specific construction noise analysis presented above is consistent with the findings of SPASP EIR Impact 13-3. As shown in Table 10, project construction activities would generally occur within 50 to 200 feet of adjacent residential and commercial properties and due to this would result in construction noise levels that could be up to 24 dBA L_{eq} higher than the existing ambient noise environment near the project site. The incorporation of construction noise control measures from SPASP EIR Mitigation 13-3 into the project would reduce construction noise levels by at least 5 dBA but would not avoid the project's temporary elevated construction noise levels. The proposed project, therefore, could expose adjacent receivers to a substantial temporary increase in noise levels for an extended time but would not constitute a new or substantially more severe impact than identified in the SPASP EIR.

Construction-Related Vibration (SPASP EIR Impact 13-4)

This section discusses whether the proposed project would result in any temporary construction-related vibration impacts that were not fully evaluated in the SPASP EIR.

Summary of SPASP EIR Construction Vibration Impact Analysis

SPASP EIR Impact 13-4 evaluated construction vibration impacts associated with future development projects implemented under the SPASP. The EIR identified that certain construction activities, including demolition, excavation of below grade levels, and pile driving, as well as certain construction equipment, including jack hammers, rock drills, tracked vehicles, and pile drivers, could potentially generate substantial vibrations, in terms of peak particle velocity (PPV, inches/second), in the immediate vicinity of work areas. The EIR concluded that, depending on the distance between work areas and adjacent buildings, the structural soundness of the building and the method of construction use, vibrations could be high enough to damage structures and would likely be perceptible to occupants of adjacent buildings. The SPASP EIR, therefore, found construction noise levels would be a potentially significant impact.

To reduce the potential for structural damage and human annoyance to occur from construction vibrations, the SPASP EIR included Mitigation 13-4, which requires SPASP development projects to implement three (3) discrete construction vibration control measures including, but not limited to, avoiding the use of impact pile driving where possible, avoiding the use of vibratory rollers and tamper near sensitive areas and, in areas where project construction is required to use vibration-generating activities such as pile driving in close proximity to existing structures, preparing a site-specific vibration study that determines the project-specific actions necessary to avoid excessive vibrations at adjacent structures. Although Mitigation 13-4 would reduce vibrations generated by construction, the SPASP EIR concluded that the use of pile drivers, vibratory rollers, and tampers may be necessary for certain projects and that such activities may take place near sensitive areas. The SPASP EIR, therefore, concluded temporary construction vibrations associated with the implementation of the SPASP would be a significant and unavoidable impact even with Mitigation 13-4. No other feasible mitigation measures for reducing temporary construction vibrations were identified in the SPASP EIR.

Eastshore Boulevard Apartments Project Construction Vibration Impact Analysis

The proposed project would generate construction vibration from the following sources:

- Heavy equipment operations throughout the project area. Some heavy equipment would consist of mobile equipment, such as rollers or bulldozers. Heavy equipment generates

vibration from engine operation, mechanical systems and components. Mobile equipment generally operates at different loads, or power outputs, and produce higher or lower vibration levels depending on the operating load.

The proposed project would use typical construction equipment and would not involve the use of pile drivers. During site preparation, grading, and paving activities construction equipment would operate throughout the site, moving closer to one property line and farther away from another; building construction and architectural coating activities would be concentrated in building pad areas located throughout the site. Using the worst-case equipment operations, in which construction activities would occur near the project property line, project construction activities would occur with 25 feet of the vacant commercial building at the project site, 50 feet of the commercial buildings located across Peerless Avenue, and 130 feet from the closest commercial building located across Eastshore Boulevard. All other adjacent buildings would be more than 130 feet away from project construction activities. The project's potential construction-related vibration levels are summarized in Table 11. Potential construction vibration levels were developed based on information contained in the FTA's Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2020), consistent with the information and analytical methodology described in Impact 13-4 of the SPASP EIR.

Table 11: Potential Construction-Related Ground-borne Vibration Levels

Equipment	PPV[(A)] (Inches/Second) at Distance				
	25 Feet	50 Feet	100 Feet	130 Feet	150 Feet
Small bulldozer	0.003	0.001	0.000	0.000	0.000
Jackhammer	0.035	0.014	0.006	0.004	0.003
Loaded Truck	0.076	0.031	0.013	0.009	0.007
Caisson drilling	0.089	0.036	0.015	0.010	0.009
Large bulldozer	0.089	0.036	0.015	0.010	0.009
Vibratory roller	0.210	0.085	0.035	0.025	0.020

Source: FTA, 2018 and Caltrans 2020

(A) Estimated PPV calculated as: PPV(D)=PPV(ref*(25/D^1.3 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.3 for competent soils).

As shown in Table 11, worst-case vibration levels would occur with the use of a vibratory roller within 25 feet of the vacant commercial building at the site (0.21 inches/second PPV). This vibration level is below Caltrans' thresholds for potential structural damage to modern commercial structures (0.5 inches/second PPV). Potential vibration levels at all other building locations would not exceed Caltrans' thresholds for potential structural damage to modern commercial and new residential structures (0.5 inches/second PPV), but could be perceptible at the commercial buildings across Peerless Avenue when equipment is operated within approximately 100 feet of these buildings. Although vibrations may be perceptible, they would not be excessive because they would occur intermittently during the daytime and would not result in any structural damage.

Although the project's potential construction-related vibrations would not be substantial or excessive, the project would incorporate and comply with SPASP EIR Mitigation 13-4, as follows:

Mitigation 13-4. The following measures are recommended to reduce vibration from construction activities:

1) Avoid impact pile driving where possible. Drilled piles causes lower vibration levels where geological conditions permit their use.
2) Avoid using vibratory rollers and tampers near sensitive areas.
3) In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies shall be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following (*Note: Pile driving is not currently proposed as part of project construction activities):*
    a. Identify sites that would include vibration compaction activities (such as pile driving) and have the potential to generate ground-borne vibration, and the sensitivity of nearby structures to ground-borne vibration. Vibration limits shall be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task.
    b. Develop a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.
    c. Design construction contingencies that would be implemented when vibration levels approached the limits.
    d. At a minimum, conduct vibration monitoring during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.
    e. When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
    f. Conduct post-survey on structures under either of these circumstances: (a) when construction monitoring has indicated high vibration levels or (b) when complaints of damage have been made due to construction activities.
    g. Make appropriate repairs or compensation when damage has resulted from construction activities.

The implementation of the construction vibration control measures would further reduce the project's less than significant vibration levels.

Project Consistency with SPASP EIR Construction Vibration Impact Findings

The project-specific construction vibration analysis presented above is consistent with the findings of SPASP EIR Impact 13-4. The proposed project would not result in result in construction-related vibrations that could damage structures or otherwise be excessive and would not result in a new or substantially more severe impact than identified in the SPASP EIR.

Increase in Traffic Noise Levels

This section discusses whether the proposed project would result in any increases in traffic noise levels that were not fully evaluated in the SPASP EIR.

Summary of SPASP EIR Traffic Noise Impact Analysis

The SPASP EIR evaluated project-level and cumulative changes in long-term traffic noise levels in the City resulting from the implementation of the SPASP. The SPASP EIR found development in the Plan Area would not result in a substantial increase in traffic noise levels on an individual project or cumulative basis; increases in traffic noise levels were found to be less than 2 dBA L_{dn} and 1 dBA L_{dn} on a project and cumulative basis, respectively. The SPASP EIR, therefore, found potential long-term increases in traffic noise levels would be a less than significant impact.

The SPASP EIR also evaluated the potential for SPASP development to be located immediate adjacent to the elevated BART structure, resulting in the potential for new buildings to reflect noise towards receptors east of the BART structure. The SPASP EIR found that any noise reflections would not change ambient noise levels by more than 3 dBA L_{dn}. The SPASP EIR concluded that changes in noise from possible reflections associated with new development would likely not be perceptible and, therefore, would be a less than significant impact.

Eastshore Boulevard Apartments Project Traffic Noise Impacts

The proposed Project is consistent with the underlying zoning and General Plan land use classifications for the Project site and, therefore, would not exceed the population or employment growth assumptions used by the SPASP EIR to conduct traffic noise modeling. It is noted the proposed project's amount of planned residential units (310) would account for approximately 12.4% of the total planned growth in residential units envisioned by SPASP Update (2,500 additional dwelling units); however, the proposed project would be a 100% income-restricted affordable housing project. It would not provide any off-street parking for individual apartment units and, according to the transportation demand management (TDM) plan prepared for the project, lease agreements for the project would establish a clause that prohibits tenants from owning car; violation of this clause would be cause for immediate termination of the lease (Abrams Associates 2023). The project is also proposing to implement a new car-sharing concept that will provide as-needed transportation services for tenants. The project site plan includes 68 vehicle parking stalls, 15 of which would be dedicated for car sharing along with a small carsharing management office. The project also includes 78 secure, long term bicycle parking spaces and 31 short term bicycle parking spaces. For these reasons, the proposed project is not anticipated to generate a substantial number of peak hour or daily vehicle trips, and would result in less than a 1 dBA L_{dn} contribution to changes in traffic noise levels on Eastshore Boulevard, Potrero Avenue, San Pablo Avenue, and other roadways in the Plan Area.

Project Consistency with Plan RC Program EIR Long-term Traffic Noise Impact Findings

The project-specific traffic noise analysis presented above is consistent with the findings of the SPASP EIR. The proposed Project would not individually or cumulatively contribute to significant long-term changes in traffic noise levels on any roadway and, therefore, would not constitute a new or substantially more severe impact than identified in the Plan RC Program EIR.

Ground Vibration from BART Operations

This section discusses whether the proposed project would result in any ground vibrations from BART operations that were not fully evaluated in the SPASP EIR.

Summary of SPASP EIR Ground Vibration from BART Operations Impact Analysis

The SPASP EIR concluded that future development in the Plan Area would not be exposed to excessive vibrations from BART operations because BART operates on an elevated platform within the Plan Area and data compiled by the FTA indicates BART operations would generate vibrations near the base of the platform that would be well below FTA guidelines for residential disturbance and annoyance. The SPASP EIR, therefore, concluded vibrations from BART operations would be a less than significant impact.

Eastshore Boulevard Apartments Project Construction Vibration Impact Analysis

The proposed project would, at closest, be located approximately 475 feet west of the existing BART platform. At this distance, the proposed project would not be exposed to vibrations from BART operations.

Project Consistency with SPASP EIR Construction Vibration Impact Findings

The project-specific BART vibration analysis presented above is consistent with the findings of SPASP EIR. The proposed project would not be exposed to vibrations from BART operations and would not result in a new or substantially more severe impact than identified in the SPASP EIR.

CONCLUSION

As described in this memorandum, the proposed Project does not involve substantial changes that require major revisions to the SPASP EIR due to a new or potentially more severe significant noise and vibration impact, substantial changes in circumstances under which the Project will be undertaken, or 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 City certified and adopted the SPASP Update SEIR, respectively.

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Attachment 1
Environmental Noise Background Information

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NOISE BACKGROUND

Noise may be defined as loud, unpleasant, or unwanted sound. The frequency (pitch), amplitude (intensity or loudness), and duration of noise all contribute to the effect on a listener, or receptor, and whether the receptor perceives the noise as objectionable, disturbing, or annoying.

The Decibel Scale (dB)

The decibel scale (dB) is a unit of measurement that indicates the relative amplitude of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a tenfold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 more intense, and so on. In general, there is a relationship between the subjective noisiness, or loudness of a sound, and its amplitude, or intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations:

$$50\ decibels + 50\ decibels\ \neq 100\ decibels$$

Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB as shown below.

$$10 * \ 10\ log\left(10^{\left(\frac{50}{10}\right)} + \ 10^{\left(\frac{50}{10}\right)}\right) = 53\ decibels$$

In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

Sound Characterization

There are several methods of characterizing sound. The most common method is the "A-weighted sound level," or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is typically most sensitive. Thus, most environmental measurements are reported in dBA, meaning decibels on the A-scale.

Human hearing matches the logarithmic A-weighted scale, so that a sound of 60 dBA is perceived as twice as loud as a sound of 50 dBA. In a quiet environment, an increase of 3 dB is usually perceptible, however, in a complex noise environment such as along a busy street, a noise increase of less than 3 dB is usually not perceptible, and an increase of 5 dB is usually perceptible. Normal human speech is in the range from 50 to 65 dBA. Generally, as environmental noise exceeds 50 dBA, it becomes intrusive and above 65 dBA noise becomes excessive. Nighttime activities, including sleep, are more sensitive to noise and are considered affected over a range of 40 to 55 dBA.

Sound levels are typically not steady and can vary over a short time period. The equivalent noise level (L_{eq}) is used to represent the average character of the sound over a period of time. The L_{eq} represents the level of steady noise that would have the same acoustical energy as the sum of the time-varying noise measured over a given time period. L_{eq} is useful for evaluating shorter time periods over the course of a day. The most common L_{eq} averaging period is hourly, but L_{eq} can describe any series of noise events over a given time period.

Variable noise levels are values that are exceeded for a portion of the measured time period. Thus, L_{01} is the level exceeded one percent of the time and L90 is the level exceeded 90 percent of the time. The L_{90} value usually corresponds to the background sound level at the measurement location.

Noise exposure over the course of an entire day is described by the day/night average sound level, or DNL (also referred to as L_{dn}), and the community noise equivalent level, or CNEL. Both descriptors represent the 24-hour noise impact on a community. For DNL, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a nine-hour nighttime period (10 PM to 7 AM) and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45-dBA nighttime sound level would contribute as much to the overall day-night average as a 55-dBA daytime sound level. The CNEL descriptor is similar to DNL, except that it includes an additional 5 dBA penalty beyond the 10 dBA for sound events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during DNL and CNEL calculations are intended to account for a receptor's increased sensitivity to sound levels during quieter nighttime periods.

Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise generating source. Theoretically, the sound level of a point source attenuates, or decreases, by 6 dB with each doubling of distance from a point source. Sound levels are also affected by certain environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and attenuation by barriers. Outdoor noise is also attenuated by the building envelope so that sound levels inside a residence are from 10 to 20 dB less than outside, depending mainly on whether windows are open for ventilation or not.

For an ideal "point" source of sound, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. The change in noise levels between two distances can be calculated according to Equation 1 (California Department of Transportation (Caltrans), 2013a) as follows:

Equation 1

$$dBA2 = dBA1 + 20\log (D1/D2)$$

Where:

dBA1 = Known noise level, such as a reference noise level
D1 = Distance associated with dBA1
dBA2 = Noise level at distance 2
D2 = Distance associated with dBA2

For an ideal line source of sound, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a cylindrical pattern from the source. Theoretically, the sound level attenuates, or decreases, by 3 dB with each doubling of distance from the line source. The change in noise levels between two distances can be calculated according to Equation 2 as follows:

Equation 2

$$dBA2 = dBA1 + 10\log (D1/D2)$$

Where:

dBA1 = Known noise level, such as a reference noise level
D1 = Distance associated with dBA1
dBA2 = Noise level at distance 2
D2 = Distance associated with dBA2

For noise sources that do not operate continuously (e.g., vehicles and trucks that travel on-site, park, and then cease to generate noise),the average, hourly noise level associated with variable (i.e., non-steady) noise source can be calculated using Equation 3 as follows:

Equation 3

$$Hourly\ L_{eq} = 10 * Log\ (P_h) * 10^{(Lp/10)}$$

Where:

P_h = Percentage or fraction of hour the noise is generated

L_p = The noise level generated during the partial hour (P_h)

Finally, the total combined sound pressure level from multiple, identical sources of noise at a receiver location can be calculated using Equation 4 as follows:

Equation 4

$$SPL_{Total} = SPL_1 + 10 * Log\ (N)$$

Where:

SPL_1 = Sound pressure level of one source

N = Number of identical sources to be added

Noise Effects on Humans

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person's subjective reaction to a new noise source is to compare it the existing environment without the noise source, or the "ambient" noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

When exposed to high noise levels, humans may suffer hearing damage. Sustained exposure to high noise levels (e.g., 90 dBs for hours at a time) can cause gradual hearing loss, which is usually temporary, whereas sudden exposure to a very high noise level (e.g., 130 to 140 dBs) can cause sudden and permanent hearing loss. In addition to hearing loss, noise can cause stress in humans and may contribute to stress-related diseases, such as hypertension, anxiety, and heart disease (Caltrans, 2013).

Vibration

Vibration is the movement of particles within a medium or object such as the ground or a building. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared, in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Human response to groundborne vibration is subjective and varies from person to person.

Attachment 2

AO Architects Conceptual Site Plan (June 1, 2022)

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EL CERRITO APARTMENTS
EL CERRITO, CA

DESIGN REVIEW SUBMITTAL
JUNE 1, 2022

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SITE ZONING INFORMATION

PARCEL	DISTRICT & TRANSECT ZONE	DOWNTOWN TRANSIT ORIENTED HIGHER INTENSITY MIXED-USE (TOHIMU)	
	ADJACENT ZONE(S)	TOHIMU	
	STREET TYPE(S)	GATEWAY STREET- EASTSHORE BLVD	
		EXISTING	**PROPOSED**
	LOT AREA	3.87 AC (168,577.2 SF)	1.82 AC (79,396 SF), 2.05 AC N.I.C.
	TOTAL BUILDING SQUARE FOOTAGE	50,905 SF *	219,622 SF
	LOT COVERAGE	0.3*	37,862 SF (PODIUM)/79,396 SF = 0.6
	FLOOR AREA RATIO	0.3*	2.8
	NUMBER OF UNITS		TOTAL: 310
			STUDIO (S1, S2) / 1 BEDROOM (A1,A2)
	TOTAL	295 (91.7%)	20 (6.3%)
		ALLOWABLE	**PROPOSED**
HEIGHT	HEIGHT	65' 0" MAXIMUM**	71' 0" (TOP OF PARAPET) 79'-0" (TOP OF STAIR)
	STORIES	3 STORIES RESIDENTIAL MIN.	5 STORIES RESIDENTIAL
AMENITY SPACE	ENCLOSED AMENITY		1,000 SF
	LEASING OFFICE / MAIL		1,340 SF
COMMON/ OPEN SPACE	PRIVATE/ COMMON SPACE	80SF/UNIT TOTAL: 310 x 80 SF = 24,800 SF	0
	PUBLIC OPEN SPACE	25SF/1000SF = 10,696 SF	WITHIN PROPERTY: 3,487 SF WITHIN RIGHT OF WAY: 3,160 SF
STREET TYPES	SIDEWALK AMENITY ZONE	4' 0" MIN.	4' 0" MIN.
	SIDEWALK PEDESTRIAN ZONE	6'-0" MIN. CLEAR PATH	6'-0" MIN. CLEAR PATH
	SIDEWALK ACTIVITY ZONE	0' 0" MIN.	0' 0" MIN.
ARCHITECTURE	BUILDING LENGTH	300' MAX.	283'-4" ALONG EASTSHORE BLVD
	SETBACKS:		
	GROUND FLOOR FRONT SETBACK	15' FOR RESIDENTIAL MAX 10' FOR NONRESIDENTIAL MAX	RESIDENTIAL ABOVE GROUND 0' 0" FROM PROPERTY LINE 10' 0" FROM STREET
	SIDE SETBACK	0'	30' 3"
	REAR SETBACK	NOT APPLICABLE - THE REAR SIDE OF THE PROJECT IS FACING 80 FREEWAY.	
	ENCROACHMENT INTO SETBACK		
	FRONT	2' 0" MAX.	0
	REAR	4' 0" MAX.	0
	ALLOWED FRONTAGE TYPES	SHOPFRONT PORTE-COUNTRY (NE SIDE) FLEXIBLE LOGGIA FRONT	FLEXIBLE -
PARKING	BICYCLE LONG TERM: 1 SPACE/ UNIT SHORT TERM: 1 SPACE/ 10 UNITS	310 31	78 31
	CAR	RESIDENTIAL: UP TO 1/UNIT	60 STALLS (PODIUM) 8 STALLS (OFF-STREET)
BUILDING ANALYSIS	OCCUPANCY TYPE	R-2	
	CONSTRUCTION TYPE	FIVE (5) LEVELS TYPE III over ONE (1) LEVEL TYPE I-A	
	EXTERIOR WALLS	2 HR.	
	SPRINKLERED	YES	
	ELLVATION	YES	
	ALLOWABLE HEIGHT	65' 0"**	
	PROPOSED HEIGHT	71' 0" (TOP OF PARAPET), 79' 0" (TOP OF STAIR)	
	ALLOWABLE # OF STORIES	3 STORIES RESIDENTIAL MIN. / 2 STORIES COMMERCIAL MIN.	
	PROPOSED # OF STORIES	5 STORIES RESIDENTIAL/ 1 STORY PODIUM	

* NOT IN CONTRACT (N.I.C.)
** 85'-0" MAXIMUM HEIGHT IF THE PROJECT IS CONSISTENT WITH THE AFFORDABLE HOUSING PROJECT, AS DEFINED BY STATE LAW

PROJECT TEAM

APPLICANT/OWNER:
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PO Box 260770
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agevorgian@amgland.com

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Contact: Ioanna Magiati
ioannam@aoarchitects.com
Contact: Victoria Huynh
victoriah@aoarchitects.com

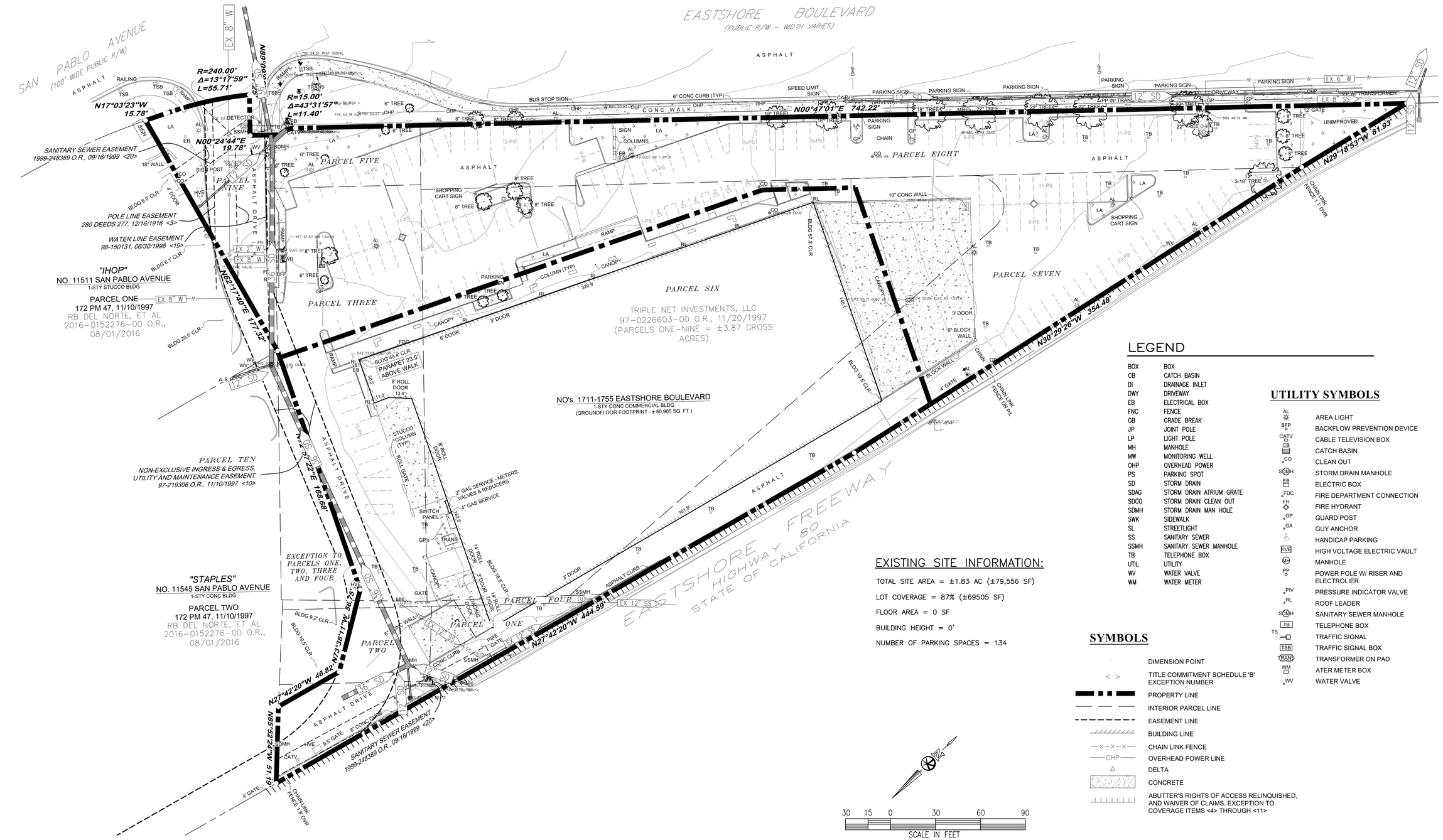
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alexandra@bellecci.com

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855 Bordeaux Way
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Napa, CA 94558
(707) 224-2299
Contact: Marley Symmes
marley@vandertoolen.com



VICINITY MAP

CS-1



LEGEND

BOX	BOX
CB	CATCH BASIN
DI	DRAINAGE INLET
DWY	DRIVEWAY
EB	ELECTRICAL BOX
FNC	FENCE
GB	GRADE BREAK
JP	JOINT POLE
LP	LIGHT POLE
MH	MANHOLE
MW	MONITORING WELL
OHP	OVERHEAD POWER
PS	PARKING SPOT
SD	STORM DRAIN
SDAG	STORM DRAIN ATRIUM GRATE
SDCO	STORM DRAIN CLEAN OUT
SDMH	STORM DRAIN MAN HOLE
SWK	SIDEWALK
SL	STREETLIGHT
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
TB	TELEPHONE BOX
UTIL	UTILITY
WV	WATER VALVE
WM	WATER METER

UTILITY SYMBOLS

AL	AREA LIGHT
BFP	BACKFLOW PREVENTION DEVICE
CATV	CABLE TELEVISION BOX
CB	CATCH BASIN
CO	CLEAN OUT
SDMH	STORM DRAIN MANHOLE
EB	ELECTRIC BOX
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT
GP	GUARD POST
GA	GUY ANCHOR
	HANDICAP PARKING
HVE	HIGH VOLTAGE ELECTRIC VAULT
MH	MANHOLE
PP	POWER POLE W/ RISER AND ELECTROLIER
PIV	PRESSURE INDICATOR VALVE
RL	ROOF LEADER
SSMH	SANITARY SEWER MANHOLE
TB	TELEPHONE BOX
TS	TRAFFIC SIGNAL
TSB	TRAFFIC SIGNAL BOX
TRANS	TRANSFORMER ON PAD
WM	ATER METER BOX
WV	WATER VALVE

EXISTING SITE INFORMATION:

TOTAL SITE AREA = ±1.83 AC (±79,556 SF)

LOT COVERAGE = 87% (±69505 SF)

FLOOR AREA = 0 SF

BUILDING HEIGHT = 0'

NUMBER OF PARKING SPACES = 134

SYMBOLS

	DIMENSION POINT
< >	TITLE COMMITMENT SCHEDULE 'B' EXCEPTION NUMBER
	PROPERTY LINE
	INTERIOR PARCEL LINE
	EASEMENT LINE
	BUILDING LINE
—X—X—	CHAIN LINK FENCE
—OHP—	OVERHEAD POWER LINE
△	DELTA
	CONCRETE
	ABUTTER'S RIGHTS OF ACCESS RELINQUISHED, AND WAIVER OF CLAIMS, EXCEPTION TO COVERAGE ITEMS <4> THROUGH <11>

30 15 0 30 60 90

SCALE IN FEET

NOTE:
BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION SHOWN HEREON WAS PREPARED BY:
TRONOFF ASSOC. – LAND SURVEYORS
1255 STARBOARD DR., SUITE A
WEST SACRAMENTO,
AUGUST 2016

BELLECCI & ASSOCIATES MAKES NO WARRANT OR REPRESENTATION THAT THE BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION SHOWN HEREON IS COMPLETE AND ACCURATE.

4TH SUBMITTAL

PRELIMINARY
NOT FOR CONSTRUCTION

BY	DATE	REVISIONS

Bellecci & Associates, inc.
Civil Engineering • Land Surveying
2290 Diamond Boulevard, Suite 100 Concord, CA 94520
Phone (925) 685-4569 Fax (925) 685-4838

REGISTERED PROFESSIONAL ENGINEER NICHOLAS A. BARRABEE-HOEPPNER No. 91247 CIVIL STATE OF CALIFORNIA

1755 EASTSHORE, LLC

EL CERRITO APARTMENTS

EXISTING CONDITIONS

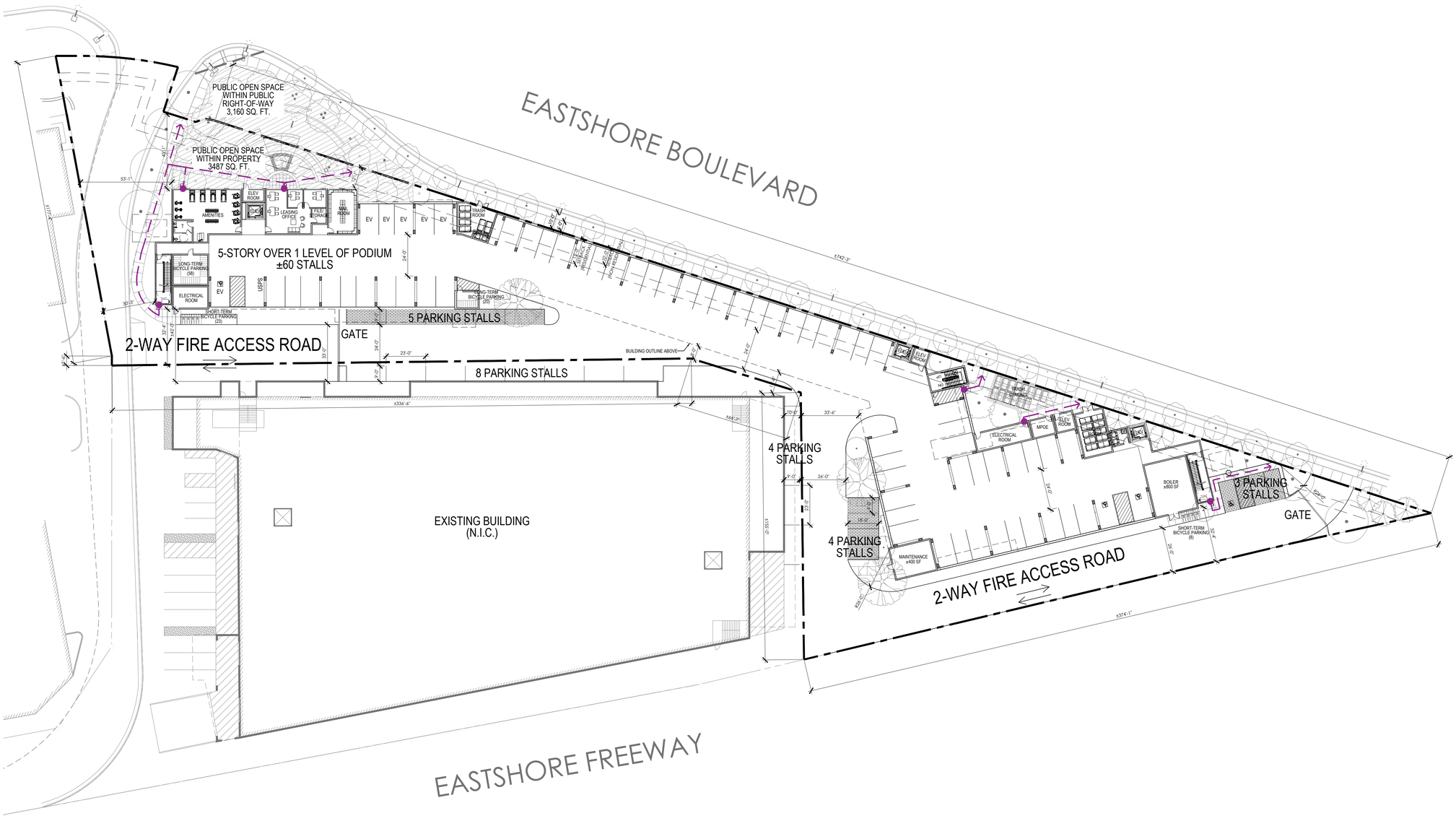
EL CERRITO CONTRA COSTA COUNTY CALIFORNIA

SHEET C-101 OF 105

JOB NO. 18037

LEGEND

PRIMARY PATH OF TRAVEL



SITE ZONING INFORMATION			
PARCEL	DISTRICT & TRANSECT ZONE	DOWNTOWN TRANSIT ORIENTED HIGHER INTENSITY MIXED-USE (TOHIMU)	
	ADJACENT ZONE(S)	TOHIMU	
	STREET TYPE(S)	GATEWAY STREET- EASTSHORE BLVD	
		EXISTING	**PROPOSED**
	LOT AREA	3.87 AC (168,577.2 SF)	1.82 A.C (79,396 SF), 2.05 AC N.I.C.
	TOTAL BUILDING SQUARE FOOTAGE	50,905 SF*	219,622 SF
	LOT COVERAGE	0.3*	37,862 SF (PODIUM)/79,396 SF = 0.6
	FLOOR AREA RATIO	0.3*	2.8
	NUMBER OF UNITS	TOTAL : 310	
		STUDIO (S1, S2)	1 BEDROOM (A1, A2)
	TOTAL	295 (91.7%)	20 (6.3%)
		ALLOWABLE	**PROPOSED**
HEIGHT	HEIGHT	65'-0" MAXIMUM**	71'-0" (TOP OF PARAPET) 79'-0" (TOP OF STAIR)
	STORIES	5 STORIES RESIDENTIAL MIN.	5 STORIES RESIDENTIAL
AMENITY SPACE	ENCLOSED AMENITY		1,090 SF
	LEASING OFFICE / MAIL		1,340 SF
COMMON/ OPEN SPACE	PRIVATE/ COMMON SPACE	80SF/UNIT TOTAL: 310 x 80 SF = 24,800 SF	0
	PUBLIC OPEN SPACE	25SF/1000SF = 10,696 SF	WITHIN PROPERTY: 3,487 SF WITHIN RIGHT OF WAY: 3,160 SF
STREET TYPES	SIDEWALK AMENITY ZONE	4'-0" MIN.	4'-0" MIN.
	SIDEWALK PEDESTRIAN ZONE	6'-0" MIN. CLEAR PATH	6'-0" MIN. CLEAR PATH
	SIDEWALK ACTIVITY ZONE	0'-0" MIN.	0'-0" MIN.
ARCHITECTURE	BUILDING LENGTH	300' MAX.	283'-4" ALONG EASTSHORE BLVD
	SETBACKS:		
	GROUND FLOOR FRONT SETBACK	15' FOR RESIDENTIAL MAX. 10' FOR NONRESIDENTIAL MAX.	RESIDENTIAL ABOVE GROUND 0'-0" FROM PROPERTY LINE 10'-0" FROM STREET
	SIDE SETBACK	0'	30'-3"
	REAR SETBACK	NOT APPLICABLE- THE REAR SIDE OF THE PROJECT IS FACING 80 FREEWAY.	
	ENCROACHMENT INTO SETBACK		
	FRONT	2'-0" MAX.	0
	REAR	4'-0" MAX.	0
	ALLOWED FRONTAGE TYPES	SHOP FRONT FORECOURT (NE SIDE) FLEXIBLE ECOFRONT	- - FLEXIBLE -
PARKING	BICYCLE		
	LONG TERM: 1 SPACE/ UNIT	310	78
	SHORT TERM: 1 SPACE/ 10 UNITS	31	31
	CAR	RESIDENTIAL - UP TO 1/UNIT	60 STALLS (PODIUM) 8 STALLS (OFF-STREET)
BUILDING ANALYSIS	OCCUPANCY TYPE	R-2	
	CONSTRUCTION TYPE	FIVE (5) LEVELS TYPE III over ONE (1) LEVEL TYPE I-A	
	EXTERIOR WALLS	2 HR	
	SPRINKLERED	YES	
	ELEVATOR	YES	
	ALLOWABLE HEIGHT	65'-0"**	
	PROPOSED HEIGHT	71'-0" (TOP OF PARAPET), 79'-0" (TOP OF STAIR)	
	ALLOWABLE # OF STORIES	3 STORIES RESIDENTIAL MIN./ 2 STORIES COMMERCIAL MIN.	
	PROPOSED # OF STORIES	5 STORIES RESIDENTIAL/ 1 STORY PODIUM	

* NOT IN CONTRACT (N.I.C.)

** 85'-0" MAXIMUM HEIGHT IF THE PROJECT IS CONSISTENT WITH THE AFFORDABLE HOUSING PROJECT, AS DEFINED BY STATE LAW

REFER TO CIVIL AND LANDSCAPE EXHIBITS FOR MORE INFORMATION

NORTH

1"=30'-0" 0 15' 30' 60' 90'

CONCEPTUAL SITE PLAN

A2.0

EL CERRITO APARTMENTS

AMG & ASSOCIATES

EL CERRITO, CA

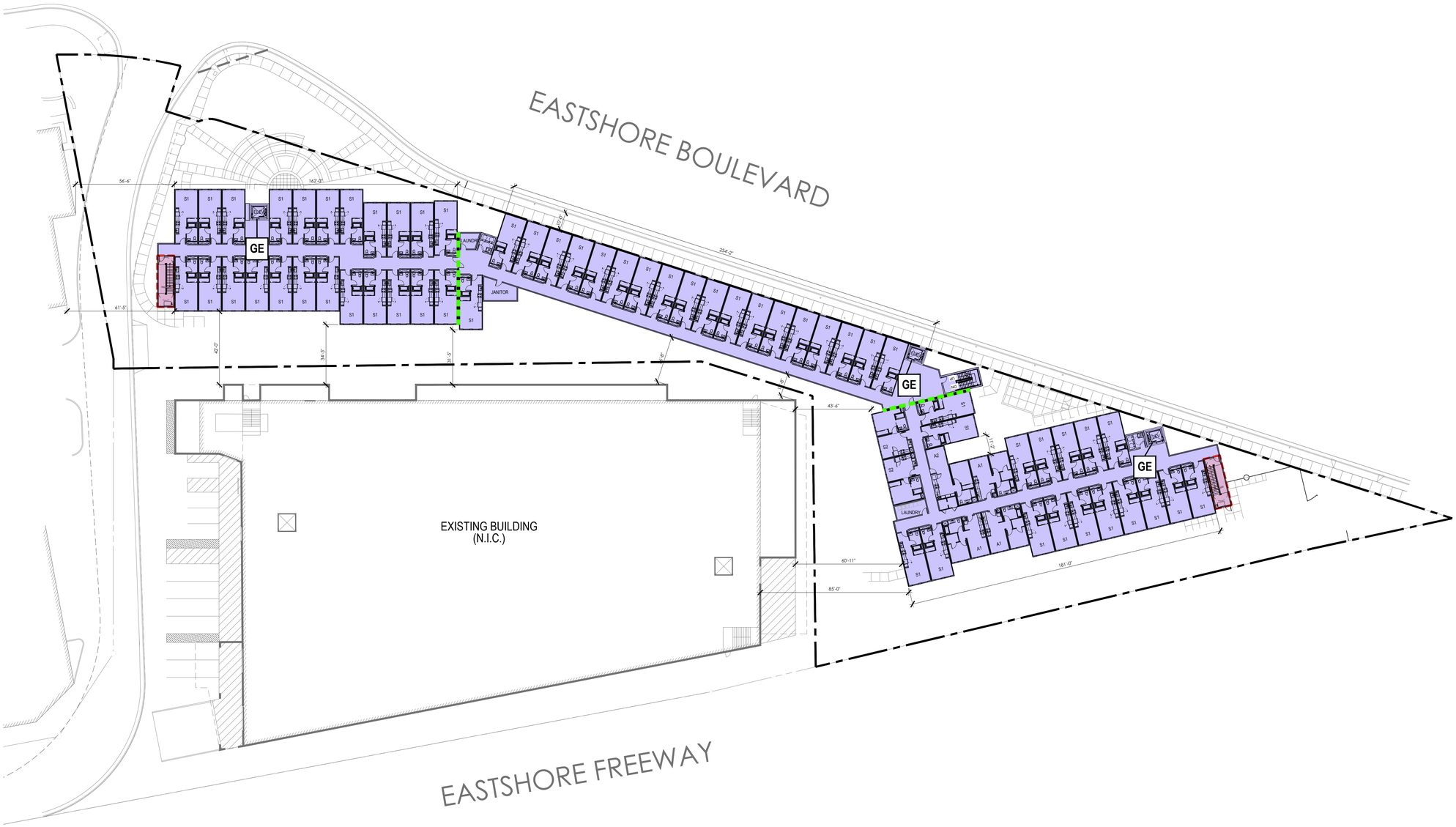
DATE: 06-01-2022
JOB NO.: 2017-694

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

LEGEND

- FIRE AREA SEPARATION WALL
- GE — GURNEY-SIZE ELEVATOR
- BUILDING FOOTPRINT
- STAIRS PROVIDING ROOF ACCESS



NORTH

1"=30'-0" 0 15' 30' 60' 90'

CONCEPTUAL FIRE PLAN -TYPICAL UPPER FLOOR

A2.2

EL CERRITO APARTMENTS

EL CERRITO, CA

DATE: 06-01-2022
JOB NO.: 2017-694

AMG & ASSOCIATES

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.

Attachment 3

SPASP EIR - Excerpts of Noise and Vibration Thresholds of Significance, Impact Findings, and Mitigation Measures

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As discussed previously, annoyance is a subjective measure, and vibrations may annoy at much lower levels than those shown in Table 13-3, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying.

Rail operations are potential sources of substantial ground-borne vibration depending on distance, the type and the speed of trains, and the type of railroad track. People's response to ground-borne vibration has been correlated best with the velocity of the ground, which is expressed on the decibel scale. The reference velocity is 1 x 10-6 in/sec RMS, which equals 0 VdB, and 1 in/sec equals 120 VdB. Although not a universally accepted notation, the abbreviation "VdB" is used in this document for *vibration* decibels to reduce the potential for confusion with *sound* decibels.

One of the problems with developing suitable criteria for ground-borne vibration is the limited research into human response to vibration and, more importantly, human annoyance inside buildings. The US Department of Transportation, Federal Transit Administration has developed rational vibration limits that can be used to evaluate human annoyance to ground-borne vibration. These criteria are primarily based on experience with passenger train operations, such as rapid transit and commuter rail systems. The main difference between passenger and freight operations is the time duration of individual events; a passenger train lasts a few seconds whereas a long freight train may last several minutes, depending on speed and length.

Vibration levels below 65 VdB are below the threshold for human perception. Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams, and foot traffic. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences. Table 13-4 illustrates some common sources of vibration and their association to human perception or the potential for structural damage.

13.1.3 Existing Noise Environment

The San Pablo Avenue Specific Plan study area spans almost the entire length of the roadway in El Cerrito, from the border with the City of Albany to the south, to the City of Richmond to the north. The Specific Plan area extends beyond the San Pablo Avenue corridor itself, to areas surrounding the two BART stations located east of San Pablo Avenue, as well as west into the City of Richmond near Interstate 80 (I-80). Land uses in the Specific Plan area vicinity include large commercial shopping centers located southeast of Central Avenue and at the northern portion of the study area near Cutting Boulevard, as well as various other land use types, ranging from small commercial centers, offices, hotels, educational facilities, and residences. East of San Pablo Avenue, single-family and multi-family residential land uses are typical.

Vehicular traffic along San Pablo Avenue and various cross streets, I-80, and BART trains are the predominant noise sources affecting the noise environment in the study area. Ambient noise measurements were made over a 24-hour period at six locations from March 27, 2014 to March 28, 2014. Attended short-term (10-minutes in duration) measurements were made at eight additional locations throughout the study area to quantify variations in the existing noise environment. Figure 13-1 shows the approximate noise monitoring locations.

Figure 13-1
NOISE MEASUREMENT LOCATIONS

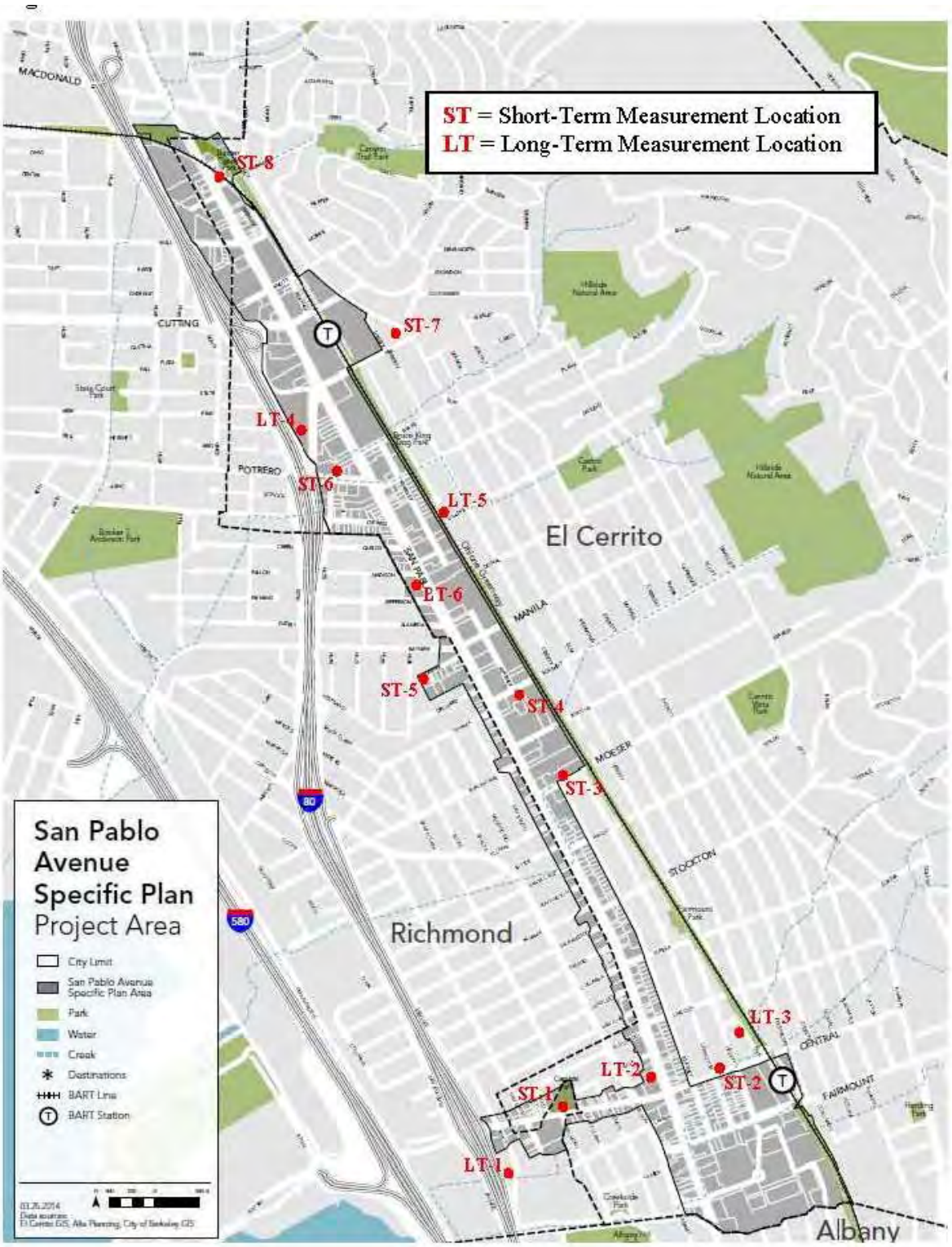


Table 13-4
TYPICAL LEVELS OF GROUND-BORNE VIBRATION

Human/Structural Response	Velocity Level, VdB	Typical Events (50-foot setback)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment
		Heavy tracked vehicles (bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	
		Commuter rail (upper range)
Residential annoyance, infrequent events	80	Rapid transit (upper range)
Residential annoyance, occasional events		Commuter rail, typical bus or truck over bump or on rough roads
Residential annoyance, frequent events	70	Rapid transit (typical)
Approximate human threshold of perception to vibration		Buses, trucks, and heavy street traffic
	60	
		Background vibration in residential settings in the absence of activity
Lower limit for equipment ultra-sensitive to vibration	50	

SOURCE: Transit Noise and Vibration Impact Assessment, US Department of Transportation, Federal Transit Administration, May 2006.

- Noise measurement site LT-1 was located approximately 170 feet from the center of I-80, south of Central Avenue and east of Pierce Street. This location was selected to quantify noise levels generated by I-80. Hourly average noise levels typically ranged from 73 dBA L_{eq} to 79 dBA L_{eq} during the day and from 72 dBA L_{eq} to 76 dBA L_{eq} at night. The day-night average noise level at location LT-1 was 82 dBA L_{dn}.

- Measurement site LT-2 was located approximately 60 feet from the center of San Pablo Avenue, north of Central Avenue. The dominant noise source at this location was vehicular traffic along San Pablo Avenue. Daytime hourly average noise levels ranged from 64 dBA L_{eq} to 71 dBA L_{eq}, while nighttime noise levels ranged from 56 dBA L_{eq} to 64 dBA L_{eq}. The day-night average noise level at this location was 69 dBA L_{dn}.

- Measurement location LT-3 was north of the El Cerrito Plaza BART Station, in a residential neighborhood along Oak Street. Hourly average noise levels typically ranged from 63 dBA L_{eq} to 68 dBA L_{eq} during the day and from 42 dBA L_{eq} to 68 dBA L_{eq} at night. The L_{dn} at this site was 70 dBA L_{dn}.

- Long-term measurement LT-4 was approximately 160 feet from the center of I-80, in the parking lot of a vacant commercial building along Eastshore Boulevard. This location was selected to quantify noise levels generated by I-80 at the north end of the study area and Eastshore Boulevard. Hourly average noise levels typically ranged from 65 dBA L_{eq} to 76 dBA L_{eq} during the monitoring survey. The 24-hour average noise level at this location was 75 dBA L_{dn}.

- Long-term measurement LT-5 was on the corner of Lexington Avenue and Gladys Avenue, approximately 60 feet from the center of the adjacent BART tracks. This location was selected to quantify noise levels generated by BART trains traveling at slightly higher speeds due to its location between the two stations. Hourly average noise levels ranged from 71 dBA L_{eq} to 75 dBA L_{eq} during the day and from 47 dBA L_{eq} to 71 dBA L_{eq} at night. The day-night average noise level at LT-5 was 75 dBA L_{dn}.

- Measurement location LT-6 was located in front of a senior housing development located between Madison Avenue and Jefferson Avenue, approximately 60 feet from the center of San Pablo Avenue. The dominant noise source at this location was vehicular traffic along the roadway. Average noise levels ranged from 65 dBA L_{eq} to 79 dBA L_{eq} during the day and from 56 dBA L_{eq} to 65 dBA L_{eq} at night. The 24-hour average noise level at this location was 72 dBA.

Attended short-term noise measurements were made at eight additional locations (ST-1 through ST-8) to complete the March 2014 monitoring survey. Table 13-5 summarizes the results of these measurements.

Table 13-5
SUMMARY OF SHORT-TERM NOISE MEASUREMENT DATA

Noise Measurement Location	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}	L_{dn}
ST-1: ~45 feet from the center of Central Avenue, at Central Park baseball field. (3/27/2014, 2:20 p.m.-2:30 p.m.)	74	72	70	67	60	67	69
ST-2: ~45 feet from the center of Fairmount Avenue, at Lexington Avenue. (3/28/2014, 10:20 a.m.-10:30 a.m.)	72	71	65	59	52	62	63
ST-3: ~45 feet from the center of Moeser Lane, across from Kearney Street. (3/28/2014, 10:40 a.m.-10:50 a.m.)	69	68	63	58	55	60	63
ST-4: ~45 feet from the center of Schmidt Lane, across from Kearney Street. (3/28/2014, 11:00 a.m.-11:10 a.m.)	73	69	63	58	55	60	63
ST-5: Dead end of Wenk Avenue. (3/28/2014, 11:20 a.m.-11:30 a.m.)	62	56	50	47	44	48	<55
ST-6: ~45 feet from the center of Potrero Avenue, between San Pablo Avenue and S. 56th Street. (3/28/2014, 11:40 a.m.-11:50 a.m.)	73	71	68	63	61	65	69
ST-7: ~45 feet from the center of Elm Street. (3/28/2014, 12:00 p.m.-12:10 p.m.)	83	82	66	59	54	67	69
ST-8: ~45 feet from the center of San Pablo Avenue, at Ohio Street. (3/28/2014, 12:20 p.m.-12:30 p.m.)	98	94	74	68	62	78	80

SOURCE: Illingworth & Rodkin, Inc., acoustical consultants, March 2014.

Note: L_{dn} approximated by correlating to corresponding period at long-term measurement location.

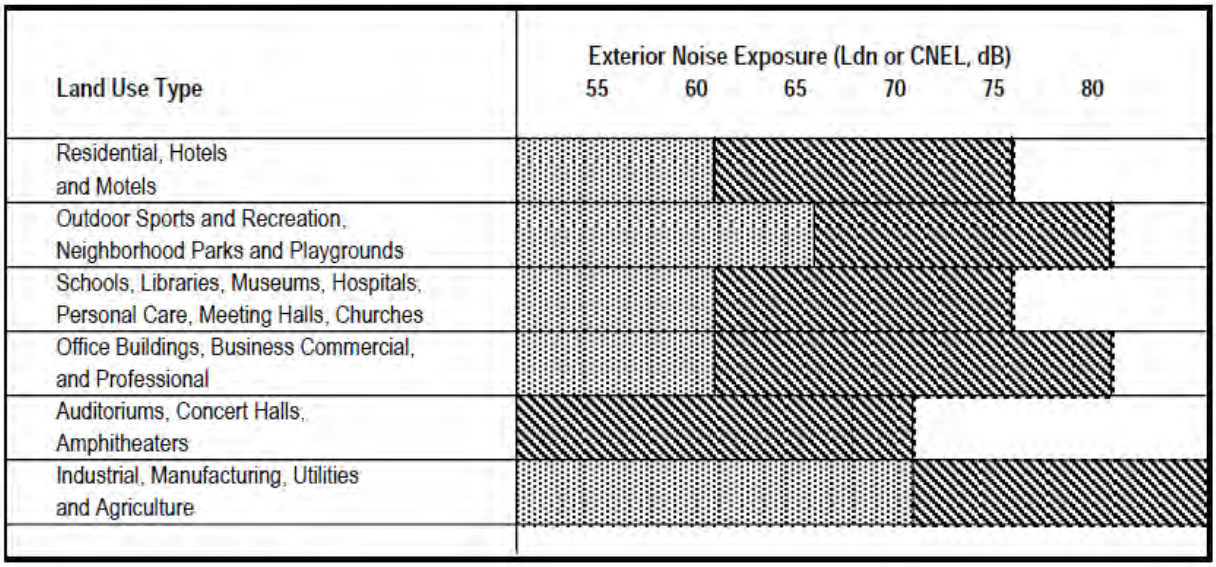
13.2 REGULATORY SETTING

13.2.1 City of El Cerrito

The Noise Element of the City of El Cerrito General Plan identifies noise and land use compatibility standards for various land uses, as shown on Figure 13-2 (Land Use Compatibility for Community Noise Environments). These standards are intended to provide compatible land uses throughout the community as related to environmental noise. Residential land uses are considered "normally acceptable" in exterior noise environments of 60 dBA L_{dn} or less and "conditionally acceptable" in exterior noise environments of 75 dBA L_{dn} or less. Interior noise levels attributable to exterior noise sources shall be maintained at or below 45 dBA L_{dn}. The General Plan also identifies goals and policies designed to limit noise exposure at noise sensitive land uses. Goal H3 states the following: "New development complies with the noise standards established in the General Plan, all new noise sources are within acceptable standards, and existing objectionable noise sources are reduced or eliminated." General Plan policies applicable to the quantitative evaluation of noise are listed below.

Figure 13-2

Land Use Compatibility for Community Noise Environments



Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

Unacceptable
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with Noise Element policies.

SOURCE: El Cerrito General Plan, Noise Element, 1999.

H3.2: Outdoor Noise Levels. "The goal for maximum outdoor noise levels in residential areas is an L_{dn} of 60 dB. This level is a requirement to guide the design and location of future development and is a goal for the reduction of noise in existing development. However, 60 L_{dn} is a goal that cannot necessarily be reached in all residential areas within the realm of economic or aesthetic feasibility. This goal will be applied where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). The outdoor standard will not normally be applied to the small decks associated with apartments and condominiums but theses will be evaluated on a case-by-case basis. Where the city determines that providing and L_{dn} of 60 dB or lower outdoors is not feasible, the outdoor goal may be increased to an L_{dn} of 65 dB at the discretion of the Planning Commission."

H3.3: Indoor Noise Levels. "The indoor noise level as required by the State of California Noise Insulation Standards must not exceed an L_{dn} of 45 dBA in new housing units." As of January 1, 2014, the State of California Building Code no longer regulates interior noise levels in multi-family residential land uses. The intention of Policy H3.3 is to establish an acceptable interior noise limit in new multi-family dwellings. For the purposes of this analysis, the 45 dBA L_{dn} interior noise limit will be used in new housing developments.

H3.4: Indoor Instantaneous Noise Levels. "Interior noise levels in new single-family and multi-family residential units exposed to an L_{dn} of 60 dB or greater should be limited to a maximum instantaneous noise level in the bedroom of 50 dBA. Maximum instantaneous noise levels in other rooms should not exceed 55 dB. The typical repetitive maximum instantaneous noise level at each site would be determined by monitoring. Examples would include truck passbys on busy streets, BART passbys and train warning whistles."

H3.5: Impacts of BART Noise. "If the noise source is BART, then the outdoor noise exposure criterion should be 70 L_{dn} for future development, recognizing that BART noise is characterized by relatively few loud events."

H3.6: New Commercial, Industrial and Office Noise Standards. "Appropriate interior noise levels in commercial, industrial, and office buildings are a function of the use of space and shall be evaluated on a case-by-case basis. Interior noise levels in offices generally should be maintained at 45 dBA L_{eq} (hourly average) or less."

H3.7: Areas Below Desired Noise Standards. "These guidelines are not intended to be applied reciprocally. In other words, if an area currently is below the desired noise standards, an increase in noise up to the maximum should not necessarily be allowed. The impact of a proposed project on an existing land use should be evaluated in terms of the increase in existing noise levels and potential for adverse community impact, regardless…[sic]"

H3.8: Non-Transportation Related Noise Sources. "For non-transportation related noise sources, noise levels outdoors should not exceed the limits in the table above. Interior noise levels shall be 15 decibels lower than those shown in the table."

H3.9: Noise Environment in Existing Residential Areas. "Protect the noise environment in existing residential areas. In general, the City will require the evaluation of mitigation measures for projects under the following circumstances:

1. The project would cause the Ldn to increase 3 dB(A) or more.
2. Any increase would result in an Ldn greater than 60 dB(A).
3. The Ldn already exceeds 60 dB(A).
4. The project has the potential to generate significant adverse community response."

H3.10: Mitigating the Effects of Noise on Adjacent Properties. "Require proposals to reduce noise impacts on adjacent properties by incorporating appropriate measures into the project."

H3.11: Commercial or Industrial Source Noise. "Noise created by commercial or industrial sources associated with new projects or developments shall be controlled so as not to exceed the noise level standards set forth in the table [13-6] below (Maximum Allowable Noise Exposure for Stationary Noise Sources), as measured at any affected residential land use."

13.2.2 City of Richmond

The Public Safety and Noise Element of the City of Richmond General Plan identifies noise and land use compatibility standards for various land uses. These standards are intended to provide compatible land uses throughout the community as related to environmental noise. Residential land uses are considered "normally acceptable" in exterior noise environments of 60 dBA L_{dn} or less, "conditionally acceptable" in exterior noise environments of 70 dBA L_{dn} or less, and "normally unacceptable" in exterior noise environments of 75 dBA L_{dn} or less.

The following General Plan goal applies to quantitative evaluation of noise:

Goal SN4: Acceptable Noise Levels. "Achieve noise levels consistent with acceptable standards and reduce or eliminate objectionable noise sources. Prevent where possible, or mitigate noise impacts from industries, roadways, railroads and businesses in residential areas and sensitive uses in the community. In addition, apply new technology, buffers and other solutions to reduce excessive noise."

13.2.3 Regulatory Criteria--Vibration

The Cities of El Cerrito and Richmond have not identified quantifiable vibration limits that can be used to evaluate the compatibility of land uses with respect to ground-borne vibration. Although there are no local standards that control allowable vibration levels in new residential development, the US Department of Transportation has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects.[1] The Federal Transit Administration (FTA) has proposed vibration impact criteria, based on maximum overall levels for a single event. The impact criteria for ground-borne vibration are shown in Table 13-7. Note that there are criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day).

[1]US Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, FTA-VA-90-1003-06.

Table 13-6
MAXIMUM ALLOWABLE NOISE EXPOSURE FOR STATIONARY NOISE SOURCES [1]

Noise Metric	**Daytime [5] (7 AM to 10 PM)**	**Nighttime [2,5] (10 PM to 7 AM)**
Hourly Leq, dB [3]	55	45
Maximum Level, dB [3]	70	65
Maximum Level, dB – Impulsive Noise [4]	65	60

SOURCE: El Cerrito General Plan, 1999.

[1] As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.
[2] Applies only where the receiving land use operates or is occupied during nighttime hours.
[3] Sound level measurements shall be made with "slow" meter response.
[4] Sound level measurements shall be made with "fast" meter response.
[5] Allowable levels shall be raised to the ambient noise levels where the ambient levels exceed the allowable levels.

13.3 IMPACTS AND MITIGATION MEASURES

Noise-related impacts from future development can be divided into short-term construction-related impacts and long-term noise exposure impacts. Construction-related impacts are associated with construction activities likely to occur in conjunction with future development allowed by the Specific Plan. Long-term noise exposure is associated with major noise sources (e.g., traffic, trains, other transit, aircraft, and stationary sources).

13.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] a significant noise impact would occur if implementation of the San Pablo Avenue Specific Plan would:

(a) Expose people to or generate noise levels in excess of standards established by the respective jurisdictions (El Cerrito and Richmond), or applicable standards of other agencies (e.g., US Department of Transportation's ground-borne vibration impact criteria);

(b) Expose people to or generate excessive ground vibration or ground-borne noise levels;

(c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (e.g., an increase of 3 dB or greater);

[1] CEQA Guidelines, appendix G, item XII (a through f).

Table 13-7
GROUND-BORNE VIBRATION IMPACT CRITERIA

Land Use Category	Ground-borne Vibration Impact Levels (VdB re 1 µinch/sec, RMS)		
	Frequent Events[1]	**Occasional Events[2]**	**Infrequent Events[3]**
Category 1 Buildings where vibration would interfere with interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]
Category 2 Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3 Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

SOURCE: US Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, FTA-VA-90-1003-06.

Notes:

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration levels. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.

(d) Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

(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 expose people residing or working in the project area to excessive noise levels; or

(f) For a project within the vicinity of a private airstrip, would expose people residing or working in the project area to excessive noise levels.

Regarding criteria (e) and (f), there are no airports or private airstrips in the project vicinity.

A significant impact would be identified if land uses proposed by the project would be exposed to noise levels exceeding each City's established guidelines for noise and land use compatibility. A significant noise impact would also result if noise levels increase substantially at existing noise-sensitive land uses (e.g., residences). Following common noise impact assessment practice, a project-related increase in noise level (e.g., traffic noise) of 3 dBA in residential areas where existing noise levels exceed 60 dBA CNEL would constitute a significant impact.

Construction noise levels would be treated differently because they are temporary and intermittent. Significant noise impacts would result from construction if noise levels were sufficiently high to interfere with speech, sleep, or normal residential activities. Construction-related hourly average noise levels received at noise-sensitive land uses above 60 dBA during the daytime and 55 dBA at night and at least 5 dBA higher than ambient noise levels would be considered significant.

Particular to the San Pablo Avenue Specific Plan, a significant noise impact would occur at proposed sensitive land uses where exterior noise levels resulting from BART trains would exceed 70 dBA L_{dn}, or where exterior noise levels from traffic would exceed 60 dBA L_{dn}. A significant impact would also result where interior day-night average noise levels would exceed 45 dBA L_{dn} or where interior maximum noise levels would exceed 50 dBA L_{max} in bedrooms or 55 dBA L_{max} in other habitable rooms. A substantial permanent noise increase would occur if the noise level increase resulting from the project is 3 dBA L_{dn} or greater. A substantial temporary noise level increase would occur where noise from construction activities exceeds 60 dBA L_{eq} and the ambient noise environment by at least 5 dBA L_{eq} at noise-sensitive uses in the project vicinity for a period greater than one year. A substantial permanent cumulative noise increase would occur if the project contributed a minimum noise increase of 1 dBA L_{dn} where cumulative noise levels are anticipated to increase by 3 dBA L_{dn} or more.

13.3.2 Relevant Specific Plan Components

The Specific Plan includes components that would avoid or reduce potential noise impacts. Especially relevant components are briefly summarized below. The reader is encouraged to review the entire Specific Plan sections for more detail. Note that within the context of the Specific Plan, a "standard" is a mandatory requirement, and a "guideline" is not mandatory but is strongly recommended.

2.05.06.01.06 Wind Power. These regulations allow the use of small, urban-scale wind turbines. Turbines must have an American Wind Energy Association (AWEA) rated sound level of 45 dBA or less.

2.05.08.06 Parking Lot Landscaping Standards. This section requires landscaping (including trees) and screening in parking areas, for both the interior and the perimeter of the parking area. The standards require the coordinated use of setbacks, landscaping (e.g., plants, earth berms, raised planters, hedges, shade trees), decorative masonry walls, and fences. The standards also require that the Zoning Administrator evaluate the solutions adjacent to residential uses for their effectiveness in addressing land use compatibility issues such as light/glare and noise.

13.3.3 Impacts and Mitigations

The Specific Plan includes Transit-Oriented Higher-Intensity Mixed Use (TOHIMU) and Transit-Oriented Mid-Intensity Mixed Use (TOMIMU) zones in El Cerrito, and Main Street and Neighborhood zones in Richmond (from the Richmond Livable Corridors Form-Based Code). These designations are intended to encourage a pedestrian-friendly, multi-modal environment with a mix of land uses in the Specific Plan area. Relevant to the existing noise environment, vehicular traffic along major arterials, I-80, and BART trains are the dominant noise sources in the Specific Plan area. Noise levels along these roadways exceed noise levels considered acceptable for residential development. Noise levels in close proximity to roadways within the Specific Plan area would also exceed acceptable levels for less-sensitive developments, such as professional offices. Residential outdoor common use areas and other outdoor spaces where quiet would be a benefit might be located in noise environments exceeding 60 dBA L_{dn} and would require noise mitigation, such as proper site planning, utilizing building massing, or sound barriers, to achieve a compatible noise environment.

Traffic volumes provided by Fehr and Peers (August 2013, see chapter 16 of this EIR) and the El Cerrito and Richmond general plans were used to calculate future noise levels for the Specific Plan noise assessment. The noise exposure levels for the "2040 With Specific Plan" traffic data, used to assess the compatibility of development facilitated by the Specific Plan, are shown in Table 13-8.

Impact 13-1: Noise and Land Use Compatibility. Residential land uses facilitated by the Specific Plan would be exposed to exterior noise levels exceeding 60 dBA L_{dn} from traffic noise and 70 dBA L_{dn} from BART noise. Future noise levels would exceed both El Cerrito's and Richmond's noise and land use compatibility standards. This is a ***potentially significant impact*** (see criterion [a] in subsection 13.3.1, "Significance Criteria," above).

Where exterior noise levels exceed 60 dBA L_{dn}, interior noise levels may also exceed the interior 45 dBA L_{dn} residential standard established in El Cerrito's and Richmond's general plans. Typical construction required in California provides approximately 15 dBA of noise reduction from exterior noise sources with windows partially open, and approximately 25 dBA of noise reduction with windows kept closed. Where exterior noise levels do not exceed 70 dBA L_{dn}, interior noise can be mitigated with standard wall and window construction and the inclusion of mechanical forced-air ventilation, subject to local building department requirements, to allow occupants the option of maintaining windows closed to control noise.

Table 13-8
"2040 WITH SPECIFIC PLAN" FUTURE TRAFFIC NOISE LEVELS

Noise Source	**L_{dn} (dBA) 50 ft. From Roadway or Rail Centerline**
San Pablo Avenue, between Fairmount Avenue and Manila Avenue	71
San Pablo Avenue, between Manila Avenue and Macdonald Avenue	73
Potrero Avenue	70
Central Avenue	70
Fairmount Avenue	64
Moeser Lane	64
Schmidt Lane	64
BART	76
I-80 with soundwalls (160 feet from center of roadway)	75
I-80 without soundwalls (160 feet from center of roadway)	82

SOURCE: Illingworth & Rodkin, April 2014.

Where exterior noise levels exceed 70 dBA L_{dn}, residential units would not normally be able to meet the 45 dBA L_{dn} interior standard through typical construction methods. This would be a potentially significant impact.

Commercial uses such as offices developed under the Specific Plan along roadways within the plan area would exceed the exterior commercial land use compatibility guideline of 65 dBA L_{dn} established in the El Cerrito General Plan. This would be a potentially significant impact.

Single event noise levels resulting from BART passbys and truck passbys on busy streets would exceed the City of El Cerrito's indoor instantaneous noise guidelines of 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms. This would be a potentially significant impact.

Mitigation 13-1. Future development would be exposed to outdoor noise levels exceeding acceptable levels as defined in the El Cerrito and Richmond general plans. Noise levels inside residential structures proposed in such noise environments would exceed 45 dBA L_{dn}, the local established land use compatibility threshold. In areas where residential developments would be exposed to an L_{dn} of greater than 60 dBA, El Cerrito General Plan Policy H3.9 requires the evaluation of mitigation measures for specific projects. In Richmond General Plan Action SN4.A, new noise-sensitive uses that are located in an area with day-night average sound levels (L_{dn}) of 55 or greater require a noise study report; the report shall identify noise mitigation measures that limit noise to an acceptable level compared to existing conditions.

- Utilize site planning to minimize noise in residential outdoor activity areas (shared outdoor space in multi-family developments) by locating the areas behind noise barriers, the buildings, in courtyards, or orienting the terraces to alleyways rather than streets, whenever possible. The goal is a maximum noise level of 60 dBA L_{dn} from roadway traffic and 70 dBA L_{dn} from BART noise.

- The City of El Cerrito requires project-specific acoustical analyses to achieve interior noise levels of 45 dBA L_{dn} or lower, and the adopted instantaneous noise levels in residential units exposed to exterior noise levels greater than 60 dBA L_{dn} should not exceed 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms. Building sound insulation requirements would need to include the provision of forced-air mechanical ventilation in noise environments exceeding 60 dBA L_{dn} so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques (e.g., sound rated windows and building facade treatments) may be required where exterior noise levels exceed 65 dBA L_{dn}. These treatments include, but are not limited to, sound rated windows and doors, sound rated exterior wall assemblies, acoustical caulking, etc. The specific determination of what treatments are necessary will be conducted on a unit-by-unit basis during project design. Results of the analysis, including the description

(continued)

Mitigation 13-1 (continued):

of the necessary noise control treatments, will be submitted to the City, along with the building plans, which shall be revised as necessary or approved prior to issuance of a building permit. Feasible construction techniques such as these would adequately reduce interior noise levels to 45 dBA L_{dn} or lower and meet instantaneous noise limits.

- Similar to above, noise insulation features shall be considered on a case-by-case basis for noise-sensitive offices and commercial uses proposed where noise levels exceed 65 dBA L_{dn}, in order to meet adopted noise standards.

Implementation of these measures would reduce potential noise and land use compatibility impacts to a ***less-than-significant level***.

Impact 13-2: Commercial Development Noise. The San Pablo Avenue Specific Plan would introduce commercial uses adjacent to residential land uses. Specific tenants for the commercial uses have not been identified, but uses would probably include retail stores, grocery stores, restaurants, or cafes. New commercial development proposed along with or next to residential development could result in noise levels exceeding City standards. Typical noise levels generated by loading and unloading would be similar to noise levels generated by truck movements on local roadways. Mechanical equipment would also have the potential to generate noise and would be a potential noise impact. This is a ***potentially significant impact*** (see criteria [a] and [d] in subsection 13.3.1, "Significance Criteria," above).

New commercial, office, or other non-residential development could produce noise (HVAC, loading docks, etc.) that could affect existing residences or other noise-sensitive land uses. New projects developed under the San Pablo Avenue Specific Plan would be subject to Richmond's and El Cerrito's general plans and municipal codes, which set limits for permissible noise levels during the day and night, and in terms of L_{dn} according to the land use zoning of the area. Goal SN4 of the Richmond General Plan states: "Prevent where possible, or mitigate noise impacts from industries, roadways, railroads and businesses in residential areas and sensitive uses in the community." Policy H3.11 of the El Cerrito General Plan states: "Noise created by commercial or industrial sources associated with new projects or developments shall be controlled so as not to exceed the noise level standards (shown in Table 4)…as measured at any affected residential land use." These policies would help ensure that existing and future residences and other noise-sensitive land uses would not be exposed to excessive noise from these types of noise sources.

Mitigation 13-2. New commercial development proposed in the same building as or adjacent to residential development could result in noise levels exceeding City standards.

- Noise levels at residential property lines from commercial development shall be maintained not in excess of the general plan and municipal code limits for the Cities of El Cerrito and Richmond. The approval of the commercial development shall require a noise study demonstrating how the business--including loading docks, refuse areas, and ventilation systems--would meet these requirements and would be consistent with the respective City's noise standards.

- Ensure that noise-generating activities, such as maintenance activities and loading and unloading activities, are limited to the hours of 7:00 AM to 9:00 PM.

Implementation of these measures would reduce the potential commercial development noise impacts to a ***less-than-significant level***.

Project-Generated and Cumulative Traffic Noise. Specific Plan development would not result in a substantial increase in traffic noise levels above existing noise levels along area roadways. The Specific Plan would not make a "cumulatively considerable" contribution to noise levels that would be substantially increased as a result of cumulative growth in the area. This is a less-than-significant impact.

Development facilitated by the Specific Plan would increase traffic on area roadways. Projected changes to traffic noise levels from existing levels were calculated by comparing existing and future traffic scenarios ("2040 With Specific Plan" and "2040 With Mode Shift") for the project development capacity (see EIR chapter 16). A substantial noise level increase is considered to be 3 dBA L_{dn} (see subsection 13.3.1, "Significance Criteria," above). Projected traffic noise increases throughout the Specific Plan area would be less than 2 dBA L_{dn}. This is a less-than-significant-impact.

The project would result in a significant cumulative traffic noise impact if existing sensitive receptors would be exposed to cumulative traffic noise level increases greater than 3 dBA L_{dn} above existing traffic noise levels and if the project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution would be defined as an increase of 1 dBA L_{dn} or more attributable solely to the proposed project (see subsection 13.3.1, "Significance Criteria," above).

Cumulative traffic noise levels, with or without the Specific Plan, are not anticipated to increase substantially along the roadways serving the Specific Plan area, and the project's contribution to cumulative traffic noise level increases is calculated to be less than 1 dBA L_{dn}. Cumulative traffic noise increases would not be considered substantial, and the project would not make a cumulatively considerable contribution to increased noise levels. This impact is considered ***less-than-significant*** (see criteria [a] and [c] in subsection 13.3.1, "Significance Criteria," above).

The development of new buildings facilitated by the Specific Plan, located immediately adjacent to the elevated BART structure, could reflect a minor amount of noise toward receptors east of BART. One-hundred percent of the acoustical energy resulting from BART would have to be reflected by new project buildings to result in a substantial increase in noise (3 dBA L_{dn}). At this time, the location, size, and materials of buildings that would be constructed along the BART right-of-way are not known. However, it can be reasonably assumed that the development facilitated by the project would not reflect 100 percent of the acoustical energy resulting from BART to receptors east of the elevated BART structure, and the impact would be ***less-than-significant*** because the noise increase resulting from possible minor reflections would not be perceptible (see criteria [a] and [c] in subsection 13.3.1, "Significance Criteria," above).

Mitigation. No significant impact has been identified; no mitigation is required.

Impact 13-3: Construction Noise. Businesses and residences would be intermittently exposed to high levels of noise throughout the 2040 plan horizon. Construction would elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or more. This is a ***significant impact*** (see criteria [a] and [d] in subsection 13.3.1, "Significance Criteria," above).

Residences and businesses would be affected by construction noise. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction durations last over extended periods of time. Major noise-generating construction activities would include removal of existing pavement and structures, site grading and excavation, building erections, paving, and landscaping. In some cases, residences would be directly adjacent or in close proximity to construction activities.

The highest construction noise levels would be generated during grading and excavation, with lower noise levels occurring during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 85 to 90 dBA at a distance of 50 feet. Typical hourly average construction-generated noise levels are about 80 to 85 dBA measured at a distance of 50 feet from the site during busy construction periods. In addition, pile driving may occur at some of the project sites. This type of construction activity can produce very high noise levels of approximately 105 dBA at 50 feet, which are difficult to control. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. Intervening structures or terrain would result in lower noise levels.

Although construction noise would be localized to the individual site location, businesses and residences would be intermittently exposed to high levels of noise throughout the plan horizon. Construction would elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or higher. Such a large increase in noise levels, although short-term in duration, would be a potentially significant impact.

Mitigation 13-3. Construction equipment shall be well-maintained and used judiciously to be as quiet as practical. The following measures, when applicable, are recommended to reduce noise from construction activities:

- Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for the equipment.
- Utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
- Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
- Prohibit unnecessary idling of internal combustion engines.
- Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
- Construct solid plywood fences around construction sites adjacent to operational business, residences, or noise-sensitive land uses.
- A temporary noise control blanket barrier could be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
- Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
- Ensure that construction activities (including the loading and unloading of materials and truck movements) are limited to the hours of 7:00 AM to 7:00 PM on weekdays and between the hours of 9:00 AM and 8:00 PM on weekends and holidays.
- Ensure that excavating, grading, and filling activities (including warming of equipment motors) are limited to between the hours of 7:00 AM to 7:00 PM on weekdays and between the hours of 9:00 AM and 8:00 PM on weekends and holidays.
- Businesses, residences, or noise-sensitive land uses adjacent to construction sites shall be notified of the construction schedule in writing. Designate a "construction liaison" who would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of

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Mitigation 13-3 (continued):

the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

Although the above measures would reduce noise generated by construction, the impact would remain ***significant and unavoidable*** as a result of the extended period of time that adjacent receivers could be exposed to construction noise.

Impact 13-4: Construction-Related Vibration. Residences, businesses, and historic structures could be exposed to construction-related vibration during the excavation and foundation work of buildings. This is a ***significant impact*** (see criterion [b] in subsection 13.3.1, "Significance Criteria," above).

Construction of projects within the San Pablo Avenue Specific Plan area may, in some cases, be located directly adjacent to existing structures, including weakened structures. Construction activities may include demolition of existing structures, site preparation work, excavation of below-grade levels, foundation work, pile driving, and new building erection. Demolition for an individual site may last several weeks and at times may produce substantial vibration. Excavation for underground levels would also occur on some project sites and vibratory pile driving could be used to stabilize the walls of the excavated area. Piles or drilled caissons may also be used to support building foundations.

Pile driving has the potential of generating the highest ground vibration levels and is of primary concern to architectural damage, particularly when it occurs within 100 to 200 feet of structures. Vibration levels generated by pile driving activities would vary depending on project conditions such as soil conditions, construction methods, and equipment used--but could exceed the recommended PPV thresholds to avoid architectural damage. Other project construction activities--such as caisson drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.)--may also potentially generate substantial vibration in the immediate vicinity.

Depending on the proximity of existing structures to each construction site, the structural soundness of the existing buildings, and the methods of construction used, vibration levels may be high enough to damage existing structures. Given the scope of the Specific Plan and the close proximity of many existing structures, ground-borne vibration impacts would be potentially significant.

As with any type of construction, vibration levels may at times be perceptible. However, construction phases that have the highest potential of producing vibration (pile driving and use of jackhammers and other high power tools) would be intermittent and would only occur for short periods of time for any individual project site. By use of administrative controls such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with least potential to affect

nearby businesses, perceptible vibration can be kept to a minimum and would not result in a physical or perceived significant impact.

Mitigation 13-4. The following measures are recommended to reduce vibration from construction activities:

- Avoid impact pile driving where possible. Drilled piles causes lower vibration levels where geological conditions permit their use.
- Avoid using vibratory rollers and tampers near sensitive areas.
- In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies shall be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following:
  - Identify sites that would include vibration compaction activities (such as pile driving) and have the potential to generate ground-borne vibration, and the sensitivity of nearby structures to ground-borne vibration. Vibration limits shall be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task.
  - Develop a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.
  - Design construction contingencies that would be implemented when vibration levels approached the limits.
  - At a minimum, conduct vibration monitoring during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.
  - When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
  - Conduct post-survey on structures under either of these circumstances: (a) when construction monitoring has indicated high vibration levels or (b) when complaints of damage have been made due to construction activities. Make

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Mitigation 13-4 (continued):

appropriate repairs or compensation when damage has resulted from construction activities.

It may not be possible to avoid using pile drivers, vibratory rollers, and tampers entirely during construction facilitated by the San Pablo Avenue Specific Plan. Due to the density of development in the area, some of these activities may take place near sensitive areas. In these cases, the mitigation measures listed above may not be sufficient to reduce ground-borne vibrations below a level of significance. Therefore, this impact would be ***significant and unavoidable***.

Ground Vibration from BART Operations. Future development under the Specific Plan would not expose persons to excessive vibration from BART operations. This impact is considered less-than-significant.

Along the entire Specific Plan area, BART operates on an elevated platform. According to data in the FTA Transit Noise and Vibration Impact Assessment, vibration levels resulting from BART would be well below the 72 VdB guidelines for Category 2 land uses near the footprint of the elevated structure. This impact is considered ***less-than-significant*** (see criterion [b] in subsection 13.3.1, "Significance Criteria," above).

Mitigation. No significant impact has been identified; no mitigation is required.

14. POPULATION AND HOUSING

This EIR chapter describes population and housing implications of the proposed Specific Plan. The chapter addresses the specific population and housing impact concerns identified by the CEQA Guidelines--i.e., would development under the proposed Specific Plan induce substantial population growth, displace substantial numbers of existing housing, or displace substantial numbers of people.[1]

14.1 SETTING

14.1.1 Population

Table 14.1 shows 2010 and the projected 2040 population characteristics within El Cerrito, based on demographic data developed by the Association of Bay Area Governments (ABAG).[2] As shown, the estimated year 2010 population of El Cerrito was approximately 27,277. El Cerrito's population is projected by ABAG to grow to 31,790 by 2040, a 16.5-percent increase over the 30-year period from 2010 to 2040.

14.1.2 Housing

As indicated in Table 14.1, in 2010, there were approximately 10,720 housing units in El Cerrito, according to ABAG. ABAG expects that the number of housing units in El Cerrito will increase by about 11.9 percent between 2010 and 2040, reaching a projected total of 12,000 housing units by 2040.

14.2 REGULATORY SETTING

El Cerrito Municipal Code – Section 19.22.030. This section (Affordable Housing Bonus) is intended to: (1) implement the General Plan Housing Element "for encouraging and expanding housing opportunities for households with very-low and lower incomes, seniors, disabled, and other persons with special housing needs"; (2) "allow for density bonuses and additional incentives, consistent with State Government Code section 65915"; (3) "provide additional incentives for affordable housing containing three or more bedrooms"; and (4) "ensure that lower income rental units remain affordable for at least 30 years or such other term approved by the City, consistent with State law."

This Municipal Code section would be applied to requests for additional height and other incentives as described in the Specific Plan Form-Based Code.

[1]CEQA Guidelines, appendix G, item XIII (a through c).

[2]Association of Bay Area Governments and Metropolitan Transportation Commission, Draft Plan Bay Area: Strategy for a Sustainable Region, Final Forecast of Jobs, Housing and Population, July 2013, Housing Growth by Jurisdiction and PDA/Investment Area (Contra Costa County).

Table 14.1
ESTIMATED POPULATION AND HOUSING GROWTH, 2010-2040--EL CERRITO (CITYWIDE)

	2010	2040	Percent Change, 2010-2040
Total population (residents)	27,277	31,790	+16.5
Total households	10,140	11,560	+14.0
Persons per household	2.69	2.75	+2.2
Housing units	10,720	12,000	+11.9

SOURCE: ABAG, 2013; MIG, 2014.

Richmond Municipal Code – Chapter 15.04.810.050. This chapter (Housing Density Bonus), similar to section 19.22.030 of the El Cerrito code, is intended to comply with Government Code section 65915 and allow for increased residential densities for projects that include senior housing or housing that is "affordable to moderate, lower, or very-low income persons."

This Municipal Code section would be applied to requests for additional height as described in the Specific Plan Form-Based Code.

14.3 IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to population and housing that could result from the Specific Plan.

14.3.1 Significance Criteria

Based on the CEQA Guidelines,[1] implementation of the San Pablo Avenue Specific Plan would have a significant impact related to population and housing if it would:

(a) Induce substantial population growth either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure); or

(b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.

14.3.2 Relevant Specific Plan Components

The Specific Plan document itself does not include components directly related to the CEQA-identified population and housing issues.

[1] CEQA Guidelines, appendix G, item XIII (a through c).

14.3.3 Impacts and Mitigations

This section describes potential impacts on population and housing that could result from the San Pablo Avenue Specific Plan. Related to the significance criteria above, it is noted that the Specific Plan is a long-term plan intended to guide expected growth in the Specific Plan area through 2040. Because the Plan is not a specific development project, the forecasted development capacity in the Specific Plan area may or may not occur, based on market conditions. This EIR evaluates potential impacts based on the forecasted development capacity, consistent with the conservative approach encouraged by the California Environmental Quality Act (CEQA).

Effects on Population Growth. Based on the forecasted development capacity under the proposed Specific Plan (see chapter 3, Project Description, of this EIR), the plan is anticipated to result in the following approximate net new development:

- 1,706 net new residential units, and
- 243,112 net new square feet of commercial space.

This capacity forecast is based on entitled and planned projects within the Plan area in the cities of El Cerrito and Richmond and projections for the construction of projects consistent with the Form-Based Code development standards. The Specific Plan assumes an average of 2.25 persons per household (pph) in the Specific Plan area (based on ABAG Projections and Priorities 2009, Building Momentum, p. 58). Using this factor, Specific Plan implementation could generate up to approximately 3,840 new residents in the Specific Plan area by the year 2040 (the estimated plan buildout horizon).

The El Cerrito General Plan identifies the San Pablo Avenue corridor as the focus of new housing and population growth in the City, due its proximity to existing services, including public transportation infrastructure, and the opportunities for increased land use intensity afforded by underutilized land and surface parking lots. Similarly, the Richmond General Plan (Maps 3.6a and 3.6b) identifies its portion of the Specific Plan area as “Change Area 4” for medium density, mixed-use (residential and commercial) development.

The Association of Bay Area Governments (ABAG) and the Metropolitan Transit Commission (MTC) have collaboratively adopted Plan Bay Area: Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2012-2040 (July 18, 2013). Consistent with the General Plans of El Cerrito and Richmond, the San Pablo Avenue Specific Plan area is identified as a "Priority Development Area" in Plan Bay Area (Appendix D: Contra Costa PDA Portfolio), where “infill development and intensification is envisioned.”

Plan Bay Area (Appendix D, pp. D-11 through D-14) forecasts an increase in housing units in the Specific Plan area from approximately 1,340 in 2010 to 2,350 in 2040, an increase of 1,010 units. The Specific Plan has forecast up to approximately 1,706 new residential units in the Specific Plan area through 2040, in recognition of the significant development potential of underutilized parking lots and vacant properties within the Plan area.

It is important to note that the Plan Bay Area forecasts are not mandates, or even goals, identified by ABAG and passed down to cities. Household and job allocations are based on potential Bay Area-wide job, population, and household growth statistics that take into account national, State, and regional economic trends, including affordability, economic feasibility, and

demand; Plan Bay Area then allocated a portion of this future growth to each Priority Development Area across the nine Bay Area counties based on existing infrastructure levels and support services, opportunities for growth, and zoning regulations currently in place in each jurisdiction. The PDA/OBAG (One Bay Area Government) Working Group includes representatives from member jurisdictions, who review PDA boundaries, forecasts, market demand, strategies, and policies as part of an ongoing, coordinated effort. For the purpose of this EIR, Plan Bay Area growth projections were applied to the new development standards, including on-site parking, site layout and height parameters, to assume a more realistic growth projection for the Specific Plan area. These design standards were developed to be consistent with the goals of Plan Bay Area: climate protection, adequate housing, healthy and safe communities, open space and agricultural preservation, equitable access, economic vitality, and transportation system effectiveness, but incorporate locally refined data more telling of the development feasibility of the Specific Plan than would be possible on a regional planning level.

As described throughout this EIR (e.g., chapter 3--Project Description; chapter 16--Transportation and Circulation; chapter 17--Utilities and Service Systems), Specific Plan implementation would not extend roads or infrastructure through undeveloped or low-density areas and, therefore, would not indirectly induce substantial population growth beyond the Specific Plan area boundaries. Rather, Specific Plan implementation would facilitate the projected residential and commercial growth within a transit-rich, mixed use Specific Plan area identified for such growth in both local and regional plans and forecasts. Therefore, this impact is considered ***less-than-significant*** (see criterion [a] in subsection 14.3.1, "Significance Criteria," above). Also see Chapter 19 (CEQA-Mandated Sections), Section 19.2 (Growth-Inducing Effects).

Mitigation. No significant impact has been identified; no mitigation is required.

Population and Housing Displacement Effects. The San Pablo Avenue Specific Plan is an integrated long-term plan of standards and guidelines whose development potential would be initiated voluntarily by property owners. The Specific Plan does not contain any provisions authorizing residential eminent domain by either the City of El Cerrito or the City of Richmond. Infrastructure, roadway, open space, and other public improvements proposed under the plan would not require the displacement of housing. Over time, existing residential units may be voluntarily replaced by property owners in accordance with Specific Plan provisions and allowable land uses. However, the residential and mixed use (residential/commercial) focus of the Specific Plan provides for the addition of approximately 1,706 net new residential units in the well-served Specific Plan area (see Effects on Population Growth above). The Plan is likely to offset existing high transportation costs for future residents currently dependent on private automobiles by providing a mixture of housing types near existing public transportation infrastructure, while also improving access and connectivity to these support services for existing residents through bicycle and pedestrian infrastructure projects. In addition, the affordable housing density bonuses and regulations implemented by El Cerrito and Richmond (see Regulatory Setting above) would apply to the Specific Plan area. Based on this discussion, impacts on population and housing displacement are considered ***less-than-significant*** (see criterion [b] in subsection 14.3.1, "Significance Criteria," above).

Mitigation. No significant impact has been identified; no mitigation is required.

Temporary Employment Impacts. Temporary construction jobs would also be created over the timeframe of Specific Plan implementation. It is anticipated that an adequate construction work force will continue to exist within commute distance of the Specific Plan area, thereby making highly unlikely a substantial increase in population due to project construction. The actual number of construction jobs facilitated by the plan would depend on the construction dollars spent and the construction schedules; these variables cannot be accurately quantified at this time. Nevertheless, these project-generated employment opportunities would represent a beneficial temporary economic effect of the Specific Plan. In and of itself, any population growth associated with construction activity under the plan would represent a ***less-than-significant environmental impact*** (see criterion [a] in subsection 14.3.1, "Significance Criteria," above).

Mitigation. No significant environmental impact has been identified; no mitigation is required.

13. NOISE

This SEIR Chapter describes the noise implications of the proposed San Pablo Avenue Specific Plan Update project, focusing on associated changes in the 2014 San Pablo Avenue Specific Plan EIR (2014 EIR) project that may result in significant new or substantially changed noise or vibration impacts or mitigation needs.

13.1 SETTING

The 2014 EIR Chapter 13 (Noise), Section 13.1.1 (Fundamentals of Acoustics) and Section 13.1.2 (Fundamentals of Ground-borne Vibration) describe the fundamentals of acoustics and ground-borne vibration, and are still current for this SEIR, except as updated below. The information below in this "Setting" describes changed conditions for the Specific Plan Update.

13.1.1 Fundamentals of Environmental Acoustics

The 2014 EIR Section 13.1.1 (Setting – Fundamentals of Environmental Acoustics) is still current for this SEIR.

13.1.2 Fundamentals of Ground-borne Vibration

The 2014 EIR Section 13.1.2 (Setting – Fundamentals of Ground-borne Vibration) is still current for this SEIR. The California Department of Transportation (Caltrans) released an updated version of its Transportation and Construction Vibration Guidance Manual in April 2020; however, this updated guidance document does not contain new regulatory criteria (that are applicable to the proposed project) and does not contain information that is substantially different than presented in Section 13.2.3 of the 2014 EIR.

13.1.3 Existing Noise Environment

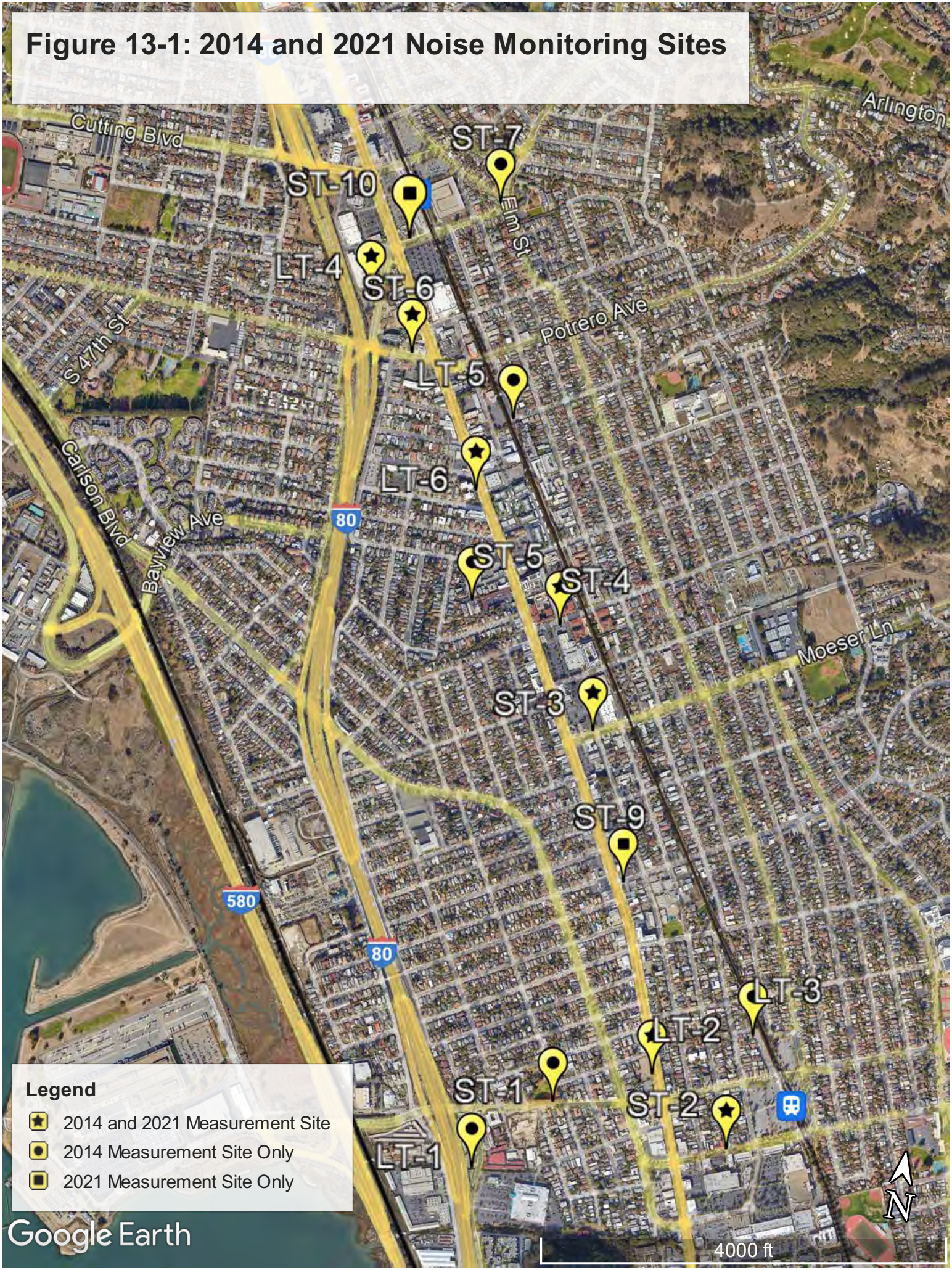
As described in the 2014 EIR (p. 13-6), "The San Pablo Avenue Specific Plan study area spans almost the entire length of the roadway in El Cerrito, from the border with the City of Albany to the south, to the City of Richmond to the north. The Specific Plan area extends beyond the San Pablo Avenue corridor itself, to areas surrounding the two BART stations located east of San Pablo Avenue, as well as west into the City of Richmond near Interstate 80 (I-80). Land uses in the Specific Plan area vicinity include large commercial shopping centers located southeast of Central Avenue and at the northern portion of the study area near Cutting Boulevard, as well as various other land use types, ranging from small commercial centers, offices, hotels, educational facilities, and residences. East of San Pablo Avenue, single-family and multi-family residential land uses are typical." This general setting information is still applicable to the proposed project. The 2014 EIR also described that vehicular traffic along San Pablo Avenue and various cross streets, I-80, and BART trains are the predominant noise sources affecting the noise environment in the Specific Plan area. This setting information is also still applicable to the Plan Update Area.

The 2014 EIR presented the results of a community noise survey conducted from Thursday, March 27, 2014 to Friday March 28, 2014, including six long-term (LT) ambient noise measurements made over a 24-hour period and eight attended short-term (ST) made over a 10-minute duration. On Thursday, September 2, 2021, an updated community noise survey was conducted for the proposed project. The ambient noise levels were digitally measured and stored using a sound level meter that meets American National Standards Institute requirements for a Type 1 integrating sound level meter. The sound meter was calibrated immediately before and after the monitoring period using a reference one-kilohertz (1kH) check frequency and 114 dB sound pressure level and found to be operating within normal parameters for sensitivity. Measurements were continuously collected over the sample period in 1-minute intervals. This interval was selected to capture short-term noise events and increases in noise levels above typical background conditions. Conditions during the monitoring were generally clear and sunny during the daytime, with a daily high of approximately 70 degrees Fahrenheit, and cool during the evening, with a low in the 50's. Winds were calm to mild, typically less than 10 miles per hour.

The updated noise survey included updated noise measurements at 7 of the 14 noise measurement locations in the 2014 EIR as well as two new measurement locations relevant to the Specific Plan Update. The updated noise survey included a LT measurement at 2014 EIR location LT-4, as well as attended ST measurements at 2014 EIR locations ST-2, ST-3, ST-4, ST-6, LT-2, and LT-6. Since updated noise measurements in 2021 were taken at the same location as the 2014 EIR measurements, site names were not changed. The two new ST measurement locations specific to the 2021 updated community noise survey are identified as ST-9 and ST-10. The 2014 and 2021 community noise survey measurements are shown in Figure 13-1.

The 2021 LT measurement at site LT-4 was approximately 150 feet from the center of I-80, in the parking lot of a vacant commercial building along Eastshore Boulevard. This location was selected to quantify noise levels generated by I-80 at the north end of the study area, which is elevated but does not have a sound wall. The 2021 hourly average noise levels at this location ranged from 61.5 dBA L_{eq} to 64.5 dBA L_{eq} during the daytime (7 AM to 10 PM) and from 56.6 dBA L_{eq} to 63.0 dBA L_{eq} during the nighttime (10 PM to 7 AM). The 24-hour average noise level at this location in 2021 was 67.2 dBA L_{dn}. This L_{dn} reflects the actual environmental conditions present during the 2021 monitoring and is lower than the 24-hour L_{dn} measured for the 2014 EIR, which was 75 dBA L_{dn}. It is probable that April 2021 traffic volumes on roadways near the Specific Plan area, including I-80, were below 2014 EIR conditions due to State public health orders limiting gatherings, school openings, non-essential travel, and other activities intended to control the spread of COVID-19. These restrictions may have reduced traffic volumes on major highways by up to 10 percent below pre-2020 levels (MTC, 2021). The California Department of Transportation (Caltrans) considers a doubling of total traffic volume to result in a three (3) dBA increase in traffic-related noise levels (Caltrans 2013). Assuming traffic volumes could be at least approximately 10 percent higher would, therefore, result in a change in measured noise levels of approximately 0.3 dBA, assuming vehicle traffic is the sole source of noise influencing a measurement and the vehicle fleet mix does not change substantially. For conservative purposes of this SEIR analysis, however, no change to measured ambient noise levels have been made.

Figure 13-1: 2014 and 2021 Noise Monitoring Sites



The results of the attended ST noise measurements made in September 2021 are summarized in Table 13-1. A comparison of 2014 EIR to 2021 ambient noise monitoring data is summarized in Table 13-2.

Table 13-1
SUMMARY OF 2021 ST NOISE MEASUREMENT DATA

Noise Measurement Location	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-2: ~45 feet from the center of Fairmount Avenue, at Lexington Avenue. (9/02/2021, 12:55 p.m.-1:05 p.m.)	74.6	68.3	62.8	57.1	51.9	59.6
ST-3: ~45 feet from the center of Moeser Lane, across from Kearney Street. (9/02/2021, 12:25 p.m.-12:55 p.m.)	90.9	76.9	67.4	59.2	54.7	65.0
ST-4: ~45 feet from the center of Schmidt Lane, across from Kearney Street. (9/02/2021, 10:42 a.m.-11:12 a.m.)	82.6	73.8	67.8	55.7	51.7	62.8
ST-6: ~45 feet from the center of Potrero Avenue, between San Pablo Avenue and S. 56th Street. (9/02/2021, 12:01 p.m.-12:31 p.m.)	73.4	67.8	64.9	59.7	57.2	61.6
ST-9: Corner of Stockton and Kearny (9/02/2021, 11:44 a.m.-12:14 p.m.)	67.1	63.2	60.5	54.7	50.7	56.8
ST-10: Ohlone Greenway at Hill Street (9/02/2021, 12:40 p.m.-1:10 p.m.)	95.8	81.9	75.3	60.7	57.7	70.9
LT-2: Approximately 60 feet from the center of San Pablo Avenue, north of Central Avenue	76.9	69.6	66.4	62.0	57.7	63.3
LT-6: ~60 feet from the center of San Pablo Avenue, between Madison Avenue and Jefferson Avenue.	90.7	79.0	73.6	68.4	63.3	70.6

SOURCE: MIG, Inc., acoustical consultants, September 2021.

Table 13-2
COMPARISON OF 2014/2021 NOISE MEASUREMENT DATA

2014/2021 Site	**2014 Daytime L_{eq}**	**2021 Daytime L_{eq}**
ST-1	67	-
ST-2	62	59.6
ST-3	60	65
ST-4	60	62.8
ST-5	48	-
ST-6	65	61.6
ST-7	67	-
ST-8	78	-
ST-9	-	56.8
ST-10	-	70.9
LT-1	73-79	-

2014/2021 Site	2014 Daytime L_{eq}	2021 Daytime L_{eq}
LT-2	64-71	63.3
LT-3	63-68	-
LT-4	65-76	63.4
LT-5	71-75	-
LT-6	65-79	70.6

The 2021 noise measurements generally had only small changes compared to the 2014 noise levels. This is due to major sources of noise, like BART trains and vehicular traffic, either remaining relatively constant or showing decreased levels of activity due to changing travel patterns resulting from the COVID-19 pandemic. For most sites, the difference in daytime L_{eq} between 2021 and 2014 was generally 5 dBA or less.

13.2 REGULATORY SETTING

The following Section focuses on any changes to the regulatory setting that have occurred since certification of the 2014 Specific Plan EIR. Chapter 13 (Noise), Section 13.2 (Regulatory Setting) includes the regulatory setting for this topic and is still current for this SEIR, except as noted below.

13.2.1 City of El Cerrito

The 2014 EIR Section 13.2.1 (Regulatory Setting – City of El Cerrito) is still current for this SEIR.

13.2.2 City of Richmond

The 2014 EIR Section 13.2.2 (Regulatory Setting – City of Richmond) is still current for this SEIR.

13.2.3 Regulatory Criteria--Vibration

The 2014 EIR Section 13.2.3 (Regulatory Setting – Vibration) is still current for this SEIR. The Federal Transit Administration (FTA) released an updated version of its Transit Noise and Vibration Impact Assessment Manual in September 2018; however, this updated guidance document does not contain new regulatory criteria and does not contain information that is substantially different than presented in Section 13.2.3 of the 2014 EIR.

13.3 SUPPLEMENTAL IMPACTS AND MITIGATION MEASURES

The scope of this supplemental noise analysis is limited to identification of new significant or substantially more severe significant noise impacts of the proposed San Pablo Avenue Specific Plan Update project in relation to the certified 2014 San Pablo Avenue Specific Plan EIR.

13.3.1 Significance Criteria

Based on the significance criteria established in the 2014 San Pablo Avenue Specific Plan EIR (Section 13.3.1),[1] the proposed project would be considered to have a significant noise impact if it would:

(a) Expose people to or generate noise levels in excess of standards established by the respective jurisdictions (El Cerrito and Richmond), or applicable standards of other agencies (e.g., US Department of Transportation's ground-borne vibration impact criteria);

(b) Expose people to or generate excessive ground vibration or ground-borne noise levels;[2]

(c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (e.g., an increase of 3 dB or greater);

(d) Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

(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 expose people residing or working in the project area to excessive noise levels; or

(f) For a project within the vicinity of a private airstrip, would expose people residing or working in the project area to excessive noise levels.

Since 2014, criteria (c) and (d) have been deleted from the CEQA Guidelines. In addition, criterion (a) and (b) have been modified from the previous criterion of the CEQA Guidelines, a shown below (see new [g]):

(g) Generate 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.

Finally, based on the significance criteria established in Appendix G of the latest (2021) CEQA Guidelines,[3] the following criterion has modified previous criteria (e) and (f) related to airport noise levels:

(h) 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.

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[1] CEQA Guidelines, Appendix G, item XII (a through f).

[2] Since 2014, CEQA Guidelines Appendix G item XIII (b) has been revised as follows (underline indicates new text; ~~strikeout~~ indicates deleted text): "~~Expose people to or~~ Generate excessive ground-borne vibration or ground-borne noise levels."

[3] CEQA Guidelines, Appendix G, item XIII (c) has been revised since the 2014 Draft EIR.

As in 2014, with regarding to criterion (h), there are no airports or private airstrips in the project vicinity. This SEIR, therefore, does not discuss airport-related noise levels further.

As described in the 2014 EIR, a significant impact would be identified if land uses proposed by the project would be exposed to noise levels exceeding each City's established guidelines for noise and land use compatibility. A significant noise impact would also result if noise levels increase substantially at existing noise-sensitive land uses (e.g., residences). Following common noise impact assessment practice, a project-related increase in noise level (e.g., traffic noise) of 3 dBA in residential areas where existing noise levels exceed 60 dBA CNEL would constitute a significant impact.

Construction noise levels would continue to be treated differently because they are temporary and intermittent. Significant noise impacts would result from construction if noise levels were sufficiently high to interfere with speech, sleep, or normal residential activities. Construction-related hourly average noise levels received at noise-sensitive land uses above 60 dBA during the daytime and 55 dBA at night and at least 5 dBA higher than ambient noise levels would be considered significant.

Particular to the San Pablo Avenue Specific Plan Update, a significant noise impact would continue to occur at proposed sensitive land uses where exterior noise levels resulting from BART trains would exceed 70 dBA L_{dn}, or where exterior noise levels from traffic would continue to exceed 60 dBA L_{dn}. A significant impact would also continue to result where interior day-night average noise levels would exceed 45 dBA L_{dn} or where interior maximum noise levels would exceed 50 dBA L_{max} in bedrooms or 55 dBA L_{max} in other habitable rooms. A substantial permanent noise increase would continue to occur if the noise level increase resulting from the project is 3 dBA L_{dn} or greater. A substantial temporary noise level increase would continue to occur where noise from construction activities exceeds 60 dBA L_{eq} and the ambient noise environment by at least 5 dBA L_{eq} at noise-sensitive uses in the project vicinity for a period greater than one year. A substantial permanent cumulative noise increase would occur if the project contributed a minimum noise increase of 1 dBA L_{dn} where cumulative noise levels are anticipated to increase by 3 dBA L_{dn} or more.

13.3.2 Pertinent Project Changes

The proposed project would continue to include mid- and high-density mixed-use development in El Cerrito, and Main Street and Neighborhood zone development in Richmond. The Specific Plan Update would slightly increase the size of the Specific Plan area by adding two new parcels that currently border the Plan Area, including one parcel to the north of the Plan Area and BART's El Cerrito Plaza to the south of the Plan Area. BART is currently proposing a transit-oriented community on the El Cerrito Plaza parcel. This type of development would be consistent with the Specific Plan and Update. Overall, the proposed project would increase development capacity within the Specific Plan area by 2,500 residential units and 100,000 square feet of commercial building space.

The proposed project would also make changes to the form-based code that regulates the physical environment and character of the streets, buildings, and open spaces in the Plan Update Area. Most of these changes (e.g., changes in pedestrian zone width) do not modify or otherwise affect the ambient noise environment of the Plan Update Area nor alter the potential for noise impacts to occur as a result of Plan Update implementation. The proposed project would, however, allow an increase in active outdoor uses, such as outdoor dining, in designated

Commercial and Major Commercial areas within the Specific Plan area, including along San Pablo Avenue, Moeser Lane, and Potrero Avenue. The proposed project would also increase the potential for more public ground floor open space as well as private open space (e.g., patios and balconies). These changes could increase the frequency with which sensitive noise receptors are exposed to traffic and commercial development noise.

13.3.3 Supplemental Impacts and Mitigations

Impact findings described in Chapter 13 (Noise), Section 13.3 (Impacts and Mitigation Measures) of the 2014 EIR remain the same and apply to the San Pablo Avenue Specific Plan Update, except as noted below.

Impact 13-1 Noise and Land Use Compatibility. The Specific Plan Update would increase the net new number of residential units by 2040 in the Specific Plan area from 1,706 to 4,206. The 2014 EIR described that (p. 13-17), "vehicular traffic along major arterials, I-80, and BART trains are the dominant noise sources in the Specific Plan area. Noise levels along these roadways exceed noise levels considered acceptable for residential development. Noise levels in close proximity to roadways within the Specific Plan Area would also exceed acceptable levels for less-sensitive developments, such as professional offices. Residential outdoor common use areas and other outdoor spaces [that would benefit from lower noise levels] might be located in noise environments exceeding 60 dBA L_{dn} and would require noise mitigation, such as proper site planning, utilizing building massing, or sound barriers, to achieve a compatible noise environment." As described in Section 13.1.3 above, these noise sources continue to be the predominant contributor to City's current 2021 ambient noise environment which, as shown in Table 13-1, typically exceeds 60 dBA L_{eq} and 65 L_{dn} on a short-term and long-term basis. Accordingly, the proposed project would result in similar potentially significant impacts as that identified in the 2014 EIR (Impact 13-1):

- Residential land uses facilitated by the Specific Plan Update would continue to be exposed to exterior noise levels exceeding 60 dBA L_{dn} from traffic noise and 70 dBA L_{dn} from BART noise. Such noise levels would continue to constitute an exceedance of both El Cerrito's and Richmond's normally acceptable noise and land use compatibility standards.[1] Furthermore, where exterior noise levels exceed 60 dBA L_{dn}, it is also possible that interior noise levels could exceed the 45 dBA L_{dn} interior residential standard established in El Cerrito's and Richmond's general plans. While exterior noise levels up to 70 dBA Ldn can generally be mitigated to achieve interior noise levels of 45 dBA Ldn with standard wall and window assemblies and the use of mechanical ventilation to allow residences to maintain a "windows closed" condition to control noise, the exposure of residential receptors to exterior noise levels above 70 dBA Ldn would continue to be a potentially significant impact.

- Commercial land uses facilitated by the Specific Plan Update would continue to be exposed to exterior noise levels exceeding 60 dBA L_{dn} from traffic noise and 70 dBA L_{dn} from BART noise. Such noise levels would continue to constitute an exceedance of both El Cerrito's and Richmond's normally acceptable noise and land use compatibility standards.

[1] El Cerrito General Plan Policy H3.2 identifies that 60 Ldn is a goal that cannot necessarily be reached in all residential areas within the realm of economic or aesthetic feasibility, and that this outdoor standard will not normally be applied to small decks associated with apartments and condominiums (which will be evaluated on a case-by-case basis).

- Land uses in the Specific Plan Update area would continue to be exposed to single-event noise levels resulting from BART passbys and truck passbys on busy streets that could exceed the City of El Cerrito's indoor instantaneous noise guidelines of 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms.

The 2014 EIR included Mitigation 13-1, which requires future development in the Specific Plan Area that is exposed to exterior or interior noise levels that exceed the acceptable levels defined in the El Cerrito and Richmond general plans to prepare project-specific noise studies (in accordance with El Cerrito General Plan Policy H3.9 and Richmond General Plan Policy SN4.A), use site planning to minimize noise in residential outdoor activity areas, and incorporate building sound insulation requirements (e.g., sound rated windows, acoustical caulking) as needed to achieve interior noise standard requirements. The 2014 EIR concluded that Mitigation 13-1 would reduce noise and land use compatibility impacts to a less-than-significant level.

Conclusion. The Specific Plan Update could result in the exposure of residential and commercial land uses to exterior and interior noise levels that exceed noise and land use compatibility standards established by the El Cerrito and Richmond general plans. This impact is consistent with 2014 EIR Impact 13-1. 2014 EIR Mitigation 13-1 remains applicable to the proposed project and remains sufficient to reduce this impact to a ***less-than-significant level.***

Impact 13-2 Commercial Development Noise. The proposed project could result in additional commercial uses adjacent to existing and future residential land uses. The 2014 EIR described that (p. 13-20), "New commercial, office, or other non-residential development could produce noise (HVAC, loading docks, etc.) that could affect existing residences or other noise-sensitive land uses. New projects developed under the San Pablo Avenue Specific Plan would be subject to Richmond's and El Cerrito's general plans and municipal codes, which set limits for permissible noise levels during the day and night, and in terms of L_{dn} according to the land use zoning of the area." The proposed project would result in similar potentially significant impacts from commercial development noise as identified in the 2014 EIR (Impact 13-2). The 2014 EIR identified that the El Cerrito General Plan (Policy H3.11) and the Richmond General Plan (Policy SN4) require noise created by commercial or industrial sources to be controlled, ensuring that existing and future residential land uses in the Specific Plan Update area would not be exposed to excessive noise from commercial developments. The 2014 EIR also included Mitigation 13-2, which requires new commercial development in the same building as or adjacent to residential development to comply with the El Cerrito and Richmond general plan and municipal code limits by preparing and submitting a project-specific noise study for review and approval by the appropriate City, and which limits noise-generating activities, such as maintenance and loading/unloading activities, to the hours of 7 AM to 9 PM. Mitigation Measure 13-2 would also address any potential noise impacts associated with emergency backup generator operation in the event of power loss (e.g., brownouts or Public Safety Power Shutoffs). The 2014 EIR concluded that Mitigation 13-2 would reduce noise and land use compatibility impacts to a *less-than-significant level*.

Conclusion. The Specific Plan Update could result in additional commercial uses adjacent to existing and future residential land uses. This impact is consistent with 2014 EIR Impact 13-2. 2014 EIR Mitigation 13-2 remains applicable to the proposed project and remains sufficient to reduce this impact to a ***less-than-significant level.***

Project Generated and Cumulative Traffic Noise. The proposed project would increase development capacity in the Specific Plan Update Area and result in additional resident and employee vehicle trips and traffic-related noise levels that could pose land use compatibility issues and/or otherwise represent a substantial permanent increase in traffic noise levels on roadways in and near the Plan Update Area. Although the proposed project does not authorize any specific individual development project or increase in vehicular traffic levels, the City has contracted with a qualified transportation engineering firm to prepare estimates of the potential total net increase in trips associated with the proposed project (Fehr and Peers, 2021; see EIR Chapter 16, Transportation and Circulation). The vehicle trip estimates prepared for the proposed project provide a sufficient level of detail to generally evaluate the potential future increases in traffic-related noise levels associated with full development of the Specific Plan Update.

The 2014 EIR evaluated potential changes in traffic noise levels on seven different roadway segments and two different freeway segments as follows: (1) San Pablo Avenue between Fairmount Avenue and Manila Avenue, (2) San Pablo Avenue between Manila Avenue and Macdonald Avenue, (3) Potrero Avenue, (4) Central Avenue, (5) Fairmount Avenue, (6) Moeser Lane, (7) Schmidt Lane, and (8) I-80 (with and without soundwalls). The 2014 EIR also evaluated noise levels associated with BART service. The 2014 EIR described that (p. 13-22), "Projected traffic noise increases throughout the Specific Plan area would be less than 2 dBA L_{dn}. This is a less-than-significant-impact . . . Cumulative traffic noise levels, with or without the Specific Plan, are not anticipated to increase substantially along the roadways serving the Specific Plan area, and the project's contribution to cumulative traffic noise level increases is calculated to be less than 1 dBA L_{dn}. Cumulative traffic noise increases would not be considered substantial, and the project would not make a cumulatively considerable contribution to increased noise levels."

The proposed project's potential increase in traffic noise levels on San Pablo Avenue is summarized in Table 13-3.

Table 13-3
SUMMARY OF SAN PABLO AVENUE L_{dn} CHANGES

San Pablo Avenue Road Segment	**2012**		**2040 Approved Specific Plan**		**2040 Proposed Specific Plan Update**	
	ADT	L_{dn}	ADT	L_{dn}	ADT	L_{dn}
Fairmount Ave to Manila Ave	24,140	69.3	35,460	71.0	37,060	71.2
Manila Ave to Macdonald Ave	31,130	72.5	34,840	73.0	35,540	73.1

As shown in Table 13-3, the 2014 EIR identified that 2040 traffic noise levels on San Pablo Avenue with the implementation of the approved Specific Plan would range from 71 L_{dn} (between Fairmount Avenue and Manila Avenue) to 73 L_{dn} (between Manila Avenue to Macdonald Avenue), which constituted a less than 2 dBA increase above the existing (2012) noise levels identified in the 2014 EIR. The Plan Update would add up to 1,600 vehicle trips per day on San Pablo Avenue between Fairmount Avenue and Manila Avenue (37,060 – 35,460 = 1,600) and up to 700 vehicle trips per day on San Pablo Avenue between Manila Avenue and Macdonald Avenue (35,540 – 34,840 = 700). This increase in traffic would result in no more than a 1.9 dBA increase above existing (2012) noise levels and no more than a 0.2 dBA

increase above predicted 2040 Specific Plan traffic noise levels on San Pablo Avenue. The Plan Update, therefore, is expected to result in similar or less increases in traffic noise levels on all other roadway segments identified in the 2014 EIR (e.g., Potrero Avenue, Fairmount Avenue) because these other roadways are not major arterials and would be subject to much lower increases in traffic volumes as a result of the proposed project. For these reasons, the proposed project would result in similar less-than-significant traffic noise impacts as identified in the 2014 EIR.

The Specific Plan Update would not affect noise levels associated with BART service in the Specific Plan Update area, but as described in the 2014 EIR (p. 13-22), "The development of new buildings facilitated by the Specific Plan, located immediately adjacent to the elevated BART structure, could reflect a minor amount of noise toward receptors east of BART. One-hundred percent of the acoustical energy resulting from BART would have to be reflected by new project buildings to result in a substantial increase in noise (3 dBA L_{dn}). At this time, the location, size, and materials of buildings that would be constructed along the BART right-of-way are not known. However, it can be reasonably assumed that the development facilitated by the project would not reflect 100 percent of the acoustical energy resulting from BART to receptors east of the elevated BART structure . . . ." The 2014 EIR concluded this potential impact would be less than significant. The Plan Update would result in similar multi-story development near BART that could result in reflective surfaces; however, for the reasons described in the 2014 EIR, this impact would remain less than significant.

Conclusion. With the proposed project, there would be no change to the impact identified in the 2014 EIR. This impact would remain ***less-than-significant.***

Impact 13-3 Construction Noise. Construction facilitated by the Specific Plan Update would result in residences and businesses being exposed to construction noise. The 2014 EIR described that (p. 13-22), "Although construction noise would be localized to the individual site location, businesses and residences would be intermittently exposed to high levels of noise throughout the plan horizon. Construction would elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or higher." The Plan Update would result in similar potentially significant impacts from commercial development construction noise as identified in the 2014 EIR (Impact 13-3). The 2014 EIR included Mitigation Measure 13-3, which requires construction equipment to be well maintained and used judiciously, and identifies 11 construction noise control practices that could be implemented to reduce construction noise levels, including the use of temporary noise barriers. The 2014 EIR concluded that while Mitigation 13-3 would reduce noise generated by construction, the impact would remain significant and unavoidable.

Conclusion. The Specific Plan Update would result in businesses and residences being intermittently exposed to high levels of noise. This impact is consistent with 2014 EIR Impact 13-3. 2014 EIR Mitigation 13-3 remains applicable to the Plan Update; however, the impact would remain ***significant and unavoidable.***

Impact 13-4 Construction-Related Vibration. The Specific Plan Update could result in construction activities taking place adjacent to existing structures, which would expose residences, businesses, and historic structures to construction-related vibration. The 2014 EIR identified that vibration levels from pile driving, especially if it occurs within 100-200 feet of a structure, could exceed recommended vibration thresholds and that other project construction activities could also generate substantial vibration. The 2014 EIR states (p. 13-24), "Depending

on the proximity of existing structures to each construction site, the structural soundness of the existing buildings, and the methods of construction used, vibration levels may be high enough to damage existing structures." The proposed project would result in similar potentially significant impacts from construction-related vibration as identified in the 2014 EIR (Impact 13-4). The 2014 EIR included Mitigation 13-4 to reduce vibration from construction activities. Mitigation 13-4 recommends avoiding pile driving where possible and avoiding using vibratory rollers and tampers near sensitive areas. It also recommends conducting vibration studies and including further mitigation measures in situations where project construction will generate vibrations near existing structures. However, because of the density of the area, project construction activities may need to take place near vibration-sensitive areas, and it would not always be possible to avoid construction activities that generate high levels of vibration.

Conclusion. The Specific Plan Update would result in residences, businesses, and historic structures being exposed to construction-related vibration. This impact is consistent with 2014 EIR Impact 13-4. 2014 EIR Mitigation 13-4 remains applicable to the proposed project; however, the impact would remain ***significant and unavoidable.***

Ground Vibration from BART Operations. The Plan Update would not generate, expose, or otherwise modify ground vibrations from BART operations. As described in the 2014 EIR, (p.13-26) "Along the entire Specific Plan area, BART operates on an elevated platform. According to data in the FTA Transit Noise and Vibration Impact Assessment, vibration levels resulting from BART would be well below the 72 VdB guidelines for Category 2 land uses near the footprint of the elevated structure." The proposed project would result in similar less-than-significant BART vibration impacts as identified in the 2014 EIR (Impact 13-4). The 2014 EIR concluded that this impact would be ***less-than-significant***, and no mitigation was required.

Conclusion. The proposed project would not result in exposure to excessive ground vibrations form BART operations. This impact would remain ***less-than-significant***.

Noise and Vibration – Impact Conclusion: The Specific Plan Update would not result in a new significant or substantially more severe significant noise and vibration impact compared to the certified 2014 EIR.

APPENDIX 24.3

SUPPLEMENTAL NOISE INFORMATION

San Pablo Avenue Specific Plan Amendement SEIR
El Cerrito and Richmond, CA
Appendix: Ambient Noise Monitoring Data
Prepared by MIG, September 2021

TABLE 1: SUMMARY OF SITE LT4 NOISE MONITORING DATA												
Date	**Time**	**Duration**	**Leq**	**CNEL**	**Lmin**	**Lmax**	**L(01)**	**L(10)**	**L(25)**	**L(50)**	**L(75)**	**L(90)**
9/2/2021	4:00 PM	1 Hour	61.8	61.8	56.1	80.7	67.8	63.8	61.9	60.7	59.9	59.2
9/2/2021	5:00 PM	1 Hour	61.5	61.5	53.0	79.1	67.0	64.1	61.9	60.3	59.3	58.6
9/2/2021	6:00 PM	1 Hour	63.0	63.0	58.1	78.7	67.7	64.7	63.5	62.4	61.6	60.9
9/2/2021	7:00 PM	1 Hour	62.2	67.2	57.9	75.8	66.7	64.3	62.7	61.6	60.7	60.0
9/2/2021	8:00 PM	1 Hour	61.7	66.7	54.0	73.3	66.0	63.8	62.2	61.1	60.0	59.3
9/2/2021	9:00 PM	1 Hour	61.7	66.7	54.8	76.1	67.4	64.2	62.2	60.6	59.5	58.6
9/2/2021	10:00 PM	1 Hour	61.6	71.6	54.2	80.8	68.0	64.7	61.8	59.9	58.8	58.0
9/2/2021	11:00 PM	1 Hour	60.5	70.5	52.0	72.3	65.8	63.4	61.0	59.3	58.0	56.9
9/3/2021	12:00 AM	1 Hour	58.3	68.3	46.3	67.9	63.1	61.1	59.1	57.4	55.8	54.5
9/3/2021	1:00 AM	1 Hour	56.6	66.6	46.5	67.0	62.1	59.7	57.3	55.4	53.6	52.2
9/3/2021	2:00 AM	1 Hour	56.9	66.9	43.3	67.7	62.7	59.9	57.7	55.7	53.7	52.1
9/3/2021	3:00 AM	1 Hour	58.0	68.0	45.5	70.1	64.0	61.1	58.7	56.6	54.8	53.6
9/3/2021	4:00 AM	1 Hour	60.4	70.4	51.4	72.7	65.7	63.4	61.2	59.2	57.7	56.5
9/3/2021	5:00 AM	1 Hour	61.8	71.8	55.1	71.9	66.2	64.0	62.5	61.2	60.0	59.2
9/3/2021	6:00 AM	1 Hour	63.0	73.0	55.1	78.2	68.0	65.5	63.8	62.2	60.7	59.8
9/3/2021	7:00 AM	1 Hour	63.0	63.0	54.6	74.3	67.6	65.5	63.9	62.2	60.8	59.8
9/3/2021	8:00 AM	1 Hour	63.1	63.1	56.1	71.3	67.0	65.2	64.0	62.6	61.4	60.4
9/3/2021	9:00 AM	1 Hour	63.9	63.9	57.4	73.9	67.8	66.0	64.7	63.4	62.2	61.3
9/3/2021	10:00 AM	1 Hour	64.6	64.6	58.3	83.0	70.2	67.3	64.8	63.5	62.5	61.6
9/3/2021	11:00 AM	1 Hour	64.5	64.5	56.9	87.2	71.4	67.6	64.5	63.0	61.8	61.0
9/3/2021	12:00 PM	1 Hour	64.4	64.4	57.0	85.1	71.6	66.6	64.5	62.9	61.9	61.0
9/3/2021	1:00 PM	1 Hour	63.7	63.7	58.4	78.8	69.1	66.1	64.0	62.6	61.8	61.0
9/3/2021	2:00 PM	1 Hour	62.9	62.9	58.3	77.4	68.6	65.0	63.1	62.1	61.1	60.5
9/3/2021	3:00 PM	1 Hour	62.6	62.6	55.9	76.5	67.9	65.0	63.2	61.5	60.4	59.7
Daytime (7 AM to 7 PM)			*63.4*	*--*	*53.0*	*87.2*	*68.9*	*65.7*	*63.8*	*62.4*	*61.3*	*60.5*
Evening (7 PM to 10 PM)			*61.9*	*--*	*54.0*	*76.1*	*66.7*	*64.1*	*62.4*	*61.1*	*60.1*	*59.3*
Nightime (10 PM to 7 AM)			*60.2*	*--*	*43.3*	*80.8*	*65.6*	*63.0*	*60.9*	*59.1*	*57.7*	*56.7*
24-hour CNEL			--	***67.5***	***24-hour DNL***		***67.2***	-	-	-	-	-

San Pablo Avenue Specific Plan Amendement SEIR
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Appendix: Ambient Noise Monitoring Data
Prepared by MIG, September 2021

TABLE 2: SUMMARY OF SHORT-TERM NOISE MONITORING DATA

Site	Date	Time	Duration	Leq	Lmin	Lmax	L(01)	L(10)	L(25)	L(50)	L(75)	L(90)
ST-2	9/2/2021	12:55 PM	10 Minutes	59.6	47.5	74.6	68.3	62.8	60.5	57.1	53.7	51.9
ST-3	9/2/2021	12:25 PM	30 Minutes	65.0	47.6	90.9	76.9	67.4	63.2	59.2	56.4	54.7
ST-4	9/2/2021	10:42 AM	30 Minutes	62.8	47.5	82.6	73.8	67.8	60.0	55.7	53.0	51.7
ST-6	9/2/2021	12:01 PM	30 Minutes	61.6	55.2	73.4	67.8	64.9	62.2	59.7	58.1	57.2
ST-9	9/2/2021	11:44 AM	30 Minutes	56.8	47.4	67.1	63.2	60.5	57.9	54.7	52.1	50.7
ST-10	9/2/2021	12:40 PM	30 Minutes	70.9	54.5	95.8	81.9	75.3	68.9	60.7	58.6	57.7
LT-2	9/2/2021	11:05 AM	30 Minutes	63.3	50.9	76.9	69.6	66.4	64.3	62.0	59.7	57.7
LT-6	9/2/2021	11:25 AM	28 Minutes	70.6	52.0	90.7	79.0	73.6	71.3	68.4	65.5	63.3

TABLE 3: SUMMARY OF SITE ST-2 NOISE MONITORING DATA

Site	Date	Time	Duration	Leq	Lmin	Lmax	L(01)	L(10)	L(25)	L(50)	L(75)	L(90)
ST-2	9/2/2021	12:55 PM	10 Minutes	59.6	47.5	74.6	68.3	62.8	60.5	57.1	53.7	51.9

TABLE 4: SUMMARY OF SITE ST-3 NOISE MONITORING DATA

Site	Date	Time	Duration	Leq	Lmin	Lmax	L(01)	L(10)	L(25)	L(50)	L(75)	L(90)
ST-3	9/2/2021	12:25 PM	10 Minutes	62.1	48.0	75.6	69.4	66.9	62.4	58.7	56.2	54.5
ST-3	9/2/2021	12:35 PM	10 Minutes	61.8	50.2	73.7	69.5	65.8	62.2	58.9	56.4	54.9
ST-3	9/2/2021	12:45 PM	10 Minutes	68.1	47.6	90.9	81.1	68.9	64.5	59.9	56.5	54.7

TABLE 5: SUMMARY OF SITE ST-4 NOISE MONITORING DATA

Site	Date	Time	Duration	Leq	Lmin	Lmax	L(01)	L(10)	L(25)	L(50)	L(75)	L(90)
ST-4	9/2/2021	10:42 AM	10 Minutes	62.1	47.5	78.2	71.3	67.9	59.6	55.7	52.4	51.0
ST-4	9/2/2021	10:52 AM	10 Minutes	62.1	48.6	82.6	74.3	65.8	59.2	55.6	53.4	51.9
ST-4	9/2/2021	11:02 AM	10 Minutes	62.7	47.5	82.6	73.8	67.8	59.9	55.7	53.0	51.6

TABLE 6: SUMMARY OF SITE ST-6 NOISE MONITORING DATA

Site	Date	Time	Duration	Leq	Lmin	Lmax	L(01)	L(10)	L(25)	L(50)	L(75)	L(90)
ST-6	9/2/2021	12:01 PM	10 Minutes	61.6	55.2	71.0	67.3	65.3	62.7	59.6	58.1	57.2
ST-6	9/2/2021	12:11 PM	10 Minutes	61.6	55.4	73.4	68.1	64.9	62.2	59.8	57.9	57.2
ST-6	9/2/2021	12:21 PM	10 Minutes	61.4	55.9	71.2	67.9	64.6	61.8	59.7	58.4	57.3

TABLE 7: SUMMARY OF SITE ST-9 NOISE MONITORING DATA

Site	Date	Time	Duration	Leq	Lmin	Lmax	L(01)	L(10)	L(25)	L(50)	L(75)	L(90)
ST-9	9/2/2021	11:44 AM	10 Minutes	57.2	47.8	66.9	63.9	61.1	58.2	55.0	52.2	50.9
ST-9	9/2/2021	11:54 AM	10 Minutes	57.1	47.4	66.9	62.8	60.5	58.5	55.5	53.0	51.2
ST-9	9/2/2021	12:04 PM	10 Minutes	56.0	47.4	67.1	62.8	59.8	57.0	53.2	50.9	50.0

San Pablo Avenue Specific Plan Amendement SEIR
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Appendix: Ambient Noise Monitoring Data
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TABLE 8: SUMMARY OF SITE ST-10 NOISE MONITORING DATA												
Site	**Date**	**Time**	**Duration**	**Leq**	**Lmin**	**Lmax**	**L(01)**	**L(10)**	**L(25)**	**L(50)**	**L(75)**	**L(90)**
ST-10	9/2/2021	12:40 PM	10 Minutes	72.2	54.5	95.8	85.0	74.8	67.0	60.2	57.9	57.0
ST-10	9/2/2021	12:50 PM	10 Minutes	71.1	55.4	87.3	80.1	76.5	70.7	61.3	59.2	58.3
ST-10	9/2/2021	1:00 PM	10 Minutes	68.5	54.8	83.9	76.4	74.3	68.1	60.5	58.6	57.8

TABLE 9: SUMMARY OF SITE LT-2 NOISE MONITORING DATA												
Site	**Date**	**Time**	**Duration**	**Leq**	**Lmin**	**Lmax**	**L(01)**	**L(10)**	**L(25)**	**L(50)**	**L(75)**	**L(90)**
LT-2	9/2/2021	11:05 AM	10 Minutes	64.4	53.6	76.9	71.0	67.5	65.4	62.9	60.8	58.8
LT-2	9/2/2021	11:15 AM	10 Minutes	62.4	50.9	69.5	67.4	65.5	63.8	61.5	59.1	57.0
LT-2	9/2/2021	11:25 AM	10 Minutes	62.7	52.0	75.3	69.6	65.7	63.5	61.5	59.1	57.1

TABLE 10: SUMMARY OF SITE LT-6 NOISE MONITORING DATA												
Site	**Date**	**Time**	**Duration**	**Leq**	**Lmin**	**Lmax**	**L(01)**	**L(10)**	**L(25)**	**L(50)**	**L(75)**	**L(90)**
LT-6	9/2/2021	11:25 AM	10 Minutes	71.8	55.2	90.7	82.0	74.3	71.6	68.8	65.9	63.8
LT-6	9/2/2021	11:35 AM	10 Minutes	69.9	52.9	78.7	75.7	73.5	71.1	68.3	65.9	64.3
LT-6	9/2/2021	11:45 AM	8 Minutes	69.4	52.0	79.5	75.5	72.7	71.0	68.0	64.5	60.6

San Pablo Avenue Specific Plan Amendement SEIR
El Cerrito and Richmond, CA
Appendix: Traffic Noise Level Estimates
Prepared by MIG, October 2021

TABLE 1: ESTIMATED CHANGE IN SAN PABLO AVENUE TRAFFIC NOISE LEVELS

San Pablo Avenue Road Segment	Existing 2012[(1)]		2040 Approved Project[(2)]		2040 Proposed Project[(3)]	
	ADT	L_{dn}	ADT	L_{dn}	ADT	L_{dn}
Fairmount Ave to Manila Ave	24,140	69.3	35,460	71.0	37,060	71.2
Manila Ave to Macdonald Ave	31,130	72.5	34,840	73.0	35,540	73.1

Notes:

1	*The existing 2012 average daily traffic (ADT) is derived from maximum peak hour intersection turning movement counts (2014 DEIR Figures 16-6A and 16-6B) assuming peak hour traffic volume is equal to 10% of ADT. The existing 2012 day-night noise exposure level (L_{dn}) is estimated based on the ratio of 2040 ADT to 2012 ADT according to Caltrans' Technical Noise Supplement (2013) Equation 2-9 ($SPL_{total} = SPL_1 + 10log(N)$).*
2	*The 2040 approved project ADT is derived from maximum peak hour intersection turning movement counts (2014 DEIR Figures 16-10A and 16-10B) assuming peak hour traffic volume is equal to 10% of ADT. The 2040 approved project L_{dn} is listed is from Draft EIR Table 13-8.*
3	*The 2040 proposed project ADT is estimated by adding the maximum net number of new trips resulting from the Specific Plan amendment on the listed roadway segment to the 2040 approved project ADT value. Net new trips were provided by Fehr & Peers (2021). The 2040 proposed project Ldn is estimated based on the ratio of 2040 ADT to 2040 proposed project ADT according to Caltrans' Technical Noise Supplement (2013) Equation 2-9 ($SPL_{total} = SPL_1 + 10log(N)$).*

Attachment 4

Traffic Noise Modeling

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Eastshore Boulevard Apartments Project
1711 - 1755 Eastshore Boulevard, El Cerrito, CA
Attachment 4: Traffic Noise Level Estimates

Sheet 1: San Pablo Avenue Traffic Noise Information

Table 1: Estimated Noise Levels at East Building Façade						
On-Site Noise Source	Reference Noise Data		Estimated Façade Noise		Estimated Façade Noise	
	Distance	dBA Ldn	Distance	dBA Ldn	No. Sources	Hourly Leq dBA
San Pablo Avenue	50	73.0	100	70	2	73
San Pablo Avenue	50	73.0	159	68	2	71
San Pablo Avenue	50	73.0	197	67	2	70
San Pablo Avenue	50	73.0	216	67	2	70
San Pablo Avenue	50	73.0	267	66	2	69
San Pablo Avenue	50	73.0	328	65	2	68
San Pablo Avenue	50	73.0	390	64	2	67

Notes:
Reference noise data source is 2014 SPASP EIR Table 13-8

REPORT: **Results: Sound Levels - No Barrier Objects**

TNM VERSION	3.1.7970.37608	REPORT DATE:	26 February 2023
CALCULATED WITH:	3.1.7970.37608	CALCULATION DATE:	2/25/2023 2:36:22 AM
CASE:	I-80	ORGANIZATION:	MIG, Inc.
UNITS:	English	ANALYSIS BY:	C.Dugan
DEFAULT GROUND TYPE:	HardSoil	PROJECT/CONTRACT	El Cerrito Eastshore Blvd Residential Project
ATMOSPHERICS:	68°F, 50%	Average pavement type shall be used unless a state	
PAVEMENT TYPE(S) USED:	Average	highway agency substantiates the use of a different	
		type with approval FHWA.	

Receiver				Modeled Traffic Noise Levels				
				Ldn		Increase over Existing		
Name	No.	Nb. R.R.	Existing Ldn	Calc.	Absolute Criterion	Calc.	Relative Criterion	Type of Impact
			dBA	dBA	dBA	dBA	dBA	
So G Flr	0	0	---	78.1	0.0	---	---	Sound Level
So 2 Flr	0	0	---	80.9	0.0	---	---	Sound Level
So 3 Flr	0	0	---	80.7	0.0	---	---	Sound Level
So 4 Flr	0	0	---	80.7	0.0	---	---	Sound Level
So 5 Flr	0	0	---	80.7	0.0	---	---	Sound Level
So 6 Flr	0	0	---	80.7	0.0	---	---	Sound Level
Ct G Flr	0	0	---	75.2	0.0	---	---	Sound Level
Ct 2 Flr	0	0	---	75.8	0.0	---	---	Sound Level
Ct 3 Flr	0	0	---	76.3	0.0	---	---	Sound Level
Ct 4 Flr	0	0	---	76.4	0.0	---	---	Sound Level
Ct 5 Flr	0	0	---	76.6	0.0	---	---	Sound Level
Ct 6 Flr	0	0	---	76.7	0.0	---	---	Sound Level
No G Flr	0	0	---	72.3	0.0	---	---	Sound Level
No 2 Flr	0	0	---	72.3	0.0	---	---	Sound Level
No 3 Flr	0	0	---	74.1	0.0	---	---	Sound Level

REPORT:	**Results: Sound Levels - No Barrier Objects**
TNM VERSION	3.1.7970.37608
CALCULATED WITH:	3.1.7970.37608
CASE:	I-80
UNITS:	English
DEFAULT GROUND TYPE:	HardSoil
ATMOSPHERICS:	68°F, 50%
PAVEMENT TYPE(S) USED:	Average

REPORT DATE:	26 February 2023
CALCULATION DATE:	2/25/2023 2:36:22 AM
ORGANIZATION:	MIG, Inc.
ANALYSIS BY:	C.Dugan
PROJECT/CONTRACT	El Cerrito Eastshore Blvd Residential Project

Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval FHWA.

Receiver				Modeled Traffic Noise Levels				
				Ldn		Increase over Existing		
Name	No.	Nb. R.R.	Existing Ldn	Calc.	Absolute Criterion	Calc.	Relative Criterion	Type of Impact
			dBA	dBA	dBA	dBA	dBA	
No 4 Flr	0	0	---	74.7	0.0	---	---	Sound Level
No 5 Flr	0	0	---	75.3	0.0	---	---	Sound Level
No 6 Flr	0	0	---	75.8	0.0	---	---	Sound Level
EIR Ref	0	0	---	79.2	0.0	---	---	Sound Level

Eastshore Boulevard Apartments Project
1711 - 1755 Eastshore Boulevard, El Cerrito, CA
Attachment 4: Traffic Noise Level Estimates

Sheet 2: I-80 Traffic Noise Information

Table 1: Caltrans Traffic Count Information			
Year	Segment	Back Peak Month Average Daily Traffic (ADT) Volume	Ahead Peak Month Average Daily Traffic (ADT) Volume
2014	Richmond, Jct Rte 123 South	179000	206000
2018	El Cerrito, Potrero Avenue	161000	146000
2019	El Cerrito, Potrero Avenue	161000	146000
2020	El Cerrito, Potrero Avenue	170000	155000
Source:	https://dot.ca.gov/programs/traffic-operations/census		

Table 2: TNM Inputs									
Road	ADT	Day %	Night %	Auto % (Day and Night)	Auto Speed	MHDT % (Day and Night)	MHDT Speed	HHDT % (Day and Night)	MHDT Speed
I-80 NB	103,000	70	30	97.4	65	1.2	65	1.4	65
I-80 SB	103,000	70	30	97.4	65	1.2	65	1.4	65
Source:	https://dot.ca.gov/programs/traffic-operations/census								

Table 3: Road and Receiver Elevations (Feet Above Mean Sea Level)							
Location	I-80	Building Floor					
		Ground	2	3	4	5	6
North	62.0	52.0	64.7	75.6	86.5	97.4	108.3
Central	54.0	51.1	63.8	74.7	85.6	96.5	107.4
South	61.0	49.8	62.5	73.4	84.3	95.2	106.1

Table 4: I-80 Traffic Noise Levels at North Building Section (Ldn)						
Distance from Road Center (Feet)	Building Floor					
	Ground	2	3	4	5	6
336	72.3	72.3	74.2	74.7	75.3	75.8
334	72.3	72.3	74.2	74.7	75.3	75.8
372	71.9	71.9	73.8	74.3	74.9	75.4

Table 5: I-80 Traffic Noise Levels at Central Building Section (Ldn)						
Distance from Road Center (Feet)	Building Floor					
	Ground	2	3	4	5	6
249	75.2	75.8	76.3	76.4	76.6	76.7
277	74.7	75.3	75.8	75.9	76.1	76.2
285	74.6	75.2	75.7	75.8	76.0	76.1
334	73.9	74.5	75.0	75.1	75.3	75.4

Table 6: I-80 Traffic Noise Levels at South Building Section (Ldn)						
Distance from Road Center (Feet)	Building Floor					
	Ground	2	3	4	5	6
129	78.1	80.9	80.7	80.7	80.7	80.7
135	77.9	80.7	80.5	80.5	80.5	80.5
140	77.7	80.5	80.3	80.3	80.3	80.3
215	75.9	78.7	78.5	78.5	78.5	78.5

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Attachment 5

Exterior to Interior Noise Reduction Calculations

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Eastshore Boulevard Apartments Project
1711 - 1755 Eastshore Boulevard, El Cerrito, CA
Attachment 5: Exterior to Interior Noise Reduction Estimates

Sheet 1: Exterior to Interior Noise Reduction Estimates

Table 1A: Exterior to Interior Noise Reductions (North Building Facades)												
Façade	EWNR (dB)	EWNR Adj. (dB)	Total EWNR (dB)	EWNR Window (dB)	EWNR Diff. (dB)	Window Surface Area %	Wall Surface Area %	EWNR Offset (dB)	Total Adjusted EWNR (dB)	Interior Room Absorption Adjustment (dB)	Constant (dB)	Total NR (dB)
Studio - 1 wall	37	4	41	32	9	15%	85%	-3	38	-4	6	36
Studio - 2 walls	37	4	41	32	9	4%	96%	-1	40	-1	6	35

Table 1B: Interior Noise Level - San Pablo Avenue North Building Façade (Ldn)						
Distance from Road Center (Feet) and Room Type	Building Floor					
	Ground	2	3	4	5	6
159 Feet -Studio - 1 wall	35.0	35.0	35.0	35.0	35.0	35.0
159 Feet -Studio - 2 walls	36.0	36.0	36.0	36.0	36.0	36.0
197 Feet -Studio - 2 walls	35.1	35.1	35.1	35.1	35.1	35.1

Table 1C: Interior Noise - I-80 North Building Façade (Ldn)						
Distance from Road Center (Feet) and Room Type	Building Floor					
	Ground	2	3	4	5	6
336 Feet -Studio - 1 wall	39.3	39.3	41.2	41.7	42.3	42.8
334 Feet -Studio - 2 walls	40.3	40.3	42.2	42.7	43.3	43.8
372 Feet -Studio - 1 wall	38.9	38.9	40.8	41.3	41.9	42.4

Table 1D: Estimated Interior Noise Exposure - North Building Façade (Lmax)						
Room Type	Building Floor					
	Ground	2	3	4	5	6
Studio - 1 wall	49.0	49.0	49.0	49.0	49.0	49.0
Studio - 2 walls	50.0	50.0	50.0	50.0	50.0	50.0

Table 2A: Exterior to Interior Noise Reductions (Central Building Facades)												
Façade	EWNR (dB)	EWNR Adj. (dB)	Total EWNR (dB)	EWNR Window (dB)	EWNR Diff. (dB)	Window Surface Area %	Wall Surface Area %	EWNR Offset (dB)	Total Adjusted EWNR (dB)	Interior Room Absorption Adjustment (dB)	Constant (dB)	Total NR (dB)
Studio - 1 wall	37	4	41	32	9	4%	96%	-1	40	-4	6	38
Studio - 1 wall	37	4	41	32	9	11%	89%	-2	39	-4	6	37

Table 2B: Interior Noise Level - San Pablo Avenue Central Building Façade (Ldn)						
Distance from Road Center (Feet) and Room Type	Building Floor					
	Ground	2	3	4	5	6
216 Feet -Studio - 1 wall	31.7	31.7	31.7	31.7	31.7	31.7
267 Feet -Studio - 1 wall	30.7	30.7	30.7	30.7	30.7	30.7
328 Feet -Studio - 1 wall	29.8	29.8	29.8	29.8	29.8	29.8

Table 2C: Interior Noise - I-80 Central Building Façade (Ldn)						
Distance from Road Center (Feet) and Room Type	Building Floor					
	Ground	2	3	4	5	6
249 Feet -Studio - 1 wall	41.2	41.8	42.3	42.4	42.6	42.7
277 Feet -Studio - 1 wall	40.7	41.3	41.8	41.9	42.1	42.2
285 Feet -Studio - 1 wall	40.6	41.2	41.7	41.8	42.0	42.1
334 Feet -Studio - 1 wall	39.9	40.5	41.0	41.1	41.3	41.4

Table 2D: Estimated Interior Noise Exposure - North Building Façade (Lmax)						
Room Type	Building Floor					
	Ground	2	3	4	5	6
Studio - 1 wall San Pablo Ave	47.0	47.0	47.0	47.0	47.0	47.0
Studio - 1 wall I-80	48.0	48.0	48.0	48.0	48.0	48.0

Table 3A: Exterior to Interior Noise Reductions (South Building Facades)												
Façade	EWNR (dB)	EWNR Adj. (dB)	Total EWNR (dB)	EWNR Window (dB)	EWNR Diff. (dB)	Window Surface Area %	Wall Surface Area %	EWNR Offset (dB)	Total Adjusted EWNR (dB)	Interior Room Absorption Adjustment (dB)	Constant (dB)	Total NR (dB)
Studio - 1 wall	37	4	41	36	5	18%	82%	-2	39	-4	6	37
Studio - 2 wall	37	4	41	36	5	18%	82%	-2	39	-1	6	34
Apt - BR	37	4	41	36	5	18%	82%	-2	39	-3	6	36
APT - LR	37	4	41	36	5	18%	82%	-2	39	-4	6	37
Studio - 2 wall	37	4	41	36	5	4%	96%	-1	40	-1	6	35
Apt - BR	37	4	41	36	5	4%	96%	-1	40	-3	6	37
APT - LR	37	4	41	36	5	4%	96%	-1	40	-4	6	38
Studio - 1 wall	37	4	41	36	5	4%	96%	-1	40	-4	6	38
Studio - BR	37	4	41	36	5	13%	87%	-1	40	-3	6	37
Studio - LR	37	4	41	36	5	13%	87%	-1	40	-4	6	38

Table 3B: Interior Noise Level - San Pablo Avenue South Building Façade (Ldn)						
Distance from Road Center (Feet) and Room Type	Building Floor					
	Ground	2	3	4	5	6
390 Feet -Studio - 1 wall	29.1	29.1	29.1	29.1	29.1	29.1
390 Feet -Studio - 2 wall	32.1	32.1	32.1	32.1	32.1	32.1
390 Feet -Apt - BR	30.1	30.1	30.1	30.1	30.1	30.1
390 Feet -APT - LR	29.1	29.1	29.1	29.1	29.1	29.1

Table 3C: Interior Noise - I-80 South Building Façade (Ldn)						
Distance from Road Center (Feet) and Room Type	Building Floor					
	Ground	2	3	4	5	6
129 Feet -Studio - 1 wall	44.1	46.9	46.7	46.7	46.7	46.7
129 Feet -Studio - 2 wall	47.1	49.9	49.7	49.7	49.7	49.7
135 Feet -Studio - 1 wall	43.9	46.7	46.5	46.5	46.5	46.5
140 Feet -Apt - BR	44.7	47.5	47.3	47.3	47.3	47.3
140 Feet -APT - LR	43.7	46.5	46.3	46.3	46.3	46.3
215 Feet -Studio - BR	41.9	44.7	44.5	44.5	44.5	44.5
215 Feet -Studio - LR	40.9	43.7	43.5	43.5	43.5	43.5

Table 3D: Additional Interior NR - I-80 South Building - West Façade (Ldn)						
Distance from Road Center (Feet) and Room Type	Building Floor					
	Ground	2	3	4	5	6
129 Feet -Studio - 1 wall	-	-1.9	-1.7	-1.7	-1.7	-1.7
129 Feet -Studio - 2 wall	-	-4.9	-4.7	-4.7	-4.7	-4.7
135 Feet -Studio - 1 wall	-	-1.7	-1.5	-1.5	-1.5	-1.5
140 Feet -Apt - BR	-	-2.5	-2.3	-2.3	-2.3	-2.3
140 Feet -APT - LR	-	-1.5	-1.3	-1.3	-1.3	-1.3
215 Feet -Studio - BR	-	-	-	-	-	-
215 Feet -Studio - LR	-	-	-	-	-	-

Table 3E: Estimated Interior Noise Exposure - I-80 South Building Façade (Lmax)						
Room Type	Building Floor					
	Ground	2	3	4	5	6
Studio - 1 wall San Pablo Ave	47.0	47.0	47.0	47.0	47.0	47.0
Studio - 2 wall San Pablo Ave	50.0	50.0	50.0	50.0	50.0	50.0
Apt - BR San Pablo Ave	48.0	48.0	48.0	48.0	48.0	48.0
APT - LR San Pablo Ave	47.0	47.0	47.0	47.0	47.0	47.0
Studio - 1 wall I-80	48.0	48.0	48.0	48.0	48.0	48.0
Studio - 2 wall I-80	51.0	51.0	51.0	51.0	51.0	51.0
Studio - BR I-80	48.0	48.0	48.0	48.0	48.0	48.0
Studio - LR I-80	47.0	47.0	47.0	47.0	47.0	47.0
Apt - BR I-80	49.0	49.0	49.0	49.0	49.0	49.0
APT - LR I-80	48.0	48.0	48.0	48.0	48.0	48.0

Table 3F: Additional Interior NR - I-80- South Building (Lmax)						
Room Type	**Building Floor**					
	Ground	**2**	**3**	**4**	**5**	**6**
Studio - 1 wall San Pablo Ave	-	-	-	-	-	-
Studio - 2 wall San Pablo Ave	-	-	-	-	-	-
Apt - BR San Pablo Ave	-	-	-	-	-	-
APT - LR San Pablo Ave	-	-	-	-	-	-
Studio - 1 wall I-80	-	-	-	-	-	-
Studio - 2 wall I-80	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Studio - BR I-80	-	-	-	-	-	-
Studio - LR I-80	-	-	-	-	-	-
Apt - BR I-80	-	-	-	-	-	-
APT - LR I-80	-	-	-	-	-	-

LEGEND

- FIRE AREA SEPARATION WALL
- GE — GURNEY-SIZE ELEVATOR
- BUILDING FOOTPRINT
- STAIRS PROVIDING ROOF ACCESS

EASTSHORE BOULEVARD

EASTSHORE FREEWAY

EXISTING BUILDING
(N.I.C.)

GE

GE

GE

LAUNDRY

JANITOR

LAUNDRY

56'-6"
162'-0"
254'-2"
61'-5"
42'-0"
34'-5"
39'-5"
43'-6"
60'-11"
85'-0"
181'-0"

Noise Technical Memo Design Recommendatons

- Design Features per Mitigation 13-1, Sections 3.c.i and 5.a
- Design Features per Mitigation 13-1, 3.c.i and 5.b
- Design Features per Mitigation 13-1, 3.a, 3.b, and 3.c.ii

NORTH

1"=30'-0" 0 15' 30' 60' 90'

CONCEPTUAL FIRE PLAN -TYPICAL UPPER FLOOR

A2.2

EL CERRITO APARTMENTS

EL CERRITO, CA

AMG & ASSOCIATES

DATE: 06-01-2022
JOB NO.: 2017-694

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.

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Attachment 6

Project Construction Noise and Vibration Estimates

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Eastshore Boulevard Apartments Project
1711 - 1755 Eastshore Boulevard, El Cerrito, CA
Attachment 6: Construction Noise Estimates

Sheet 1: Construction Noise Estimates

Table 1: Construction Noise Estimates

Equipment	RNL (Lmax)	Usage Factor	Distance from source and Average Noise Level (Leq)							
			25	50	110	130	140	270	300	400
Auger Drill Rig	85	0.2	84	78	71	70	69	63	62	60
Backhoe	80	0.4	82	76	69	68	67	61	60	58
Boring Jack Power Unit	80	0.5	83	77	70	69	68	62	61	59
Bulldozer	85	0.4	87	81	74	73	72	66	65	63
Compact roller	80	0.2	79	73	66	65	64	58	57	55
Compressor	80	0.4	82	76	69	68	67	61	60	58
Concrete Mixer	85	0.4	87	81	74	73	72	66	65	63
Crane	85	0.16	83	77	70	69	68	62	61	59
Delivery Truck	84	0.4	86	80	73	72	71	65	64	62
Excavator	85	0.4	87	81	74	73	72	66	65	63
Front End Loader	80	0.4	82	76	69	68	67	61	60	58
Generator	82	0.5	85	79	72	71	70	64	63	61
Grader	85	0.4	87	81	74	73	72	66	65	63
Man Lift	85	0.2	84	78	71	70	69	63	62	60
Paver	85	0.5	88	82	75	74	73	67	66	64
Pneumatic tools	85	0.5	88	82	75	74	73	67	66	64
Pumps	77	0.5	80	74	67	66	65	59	58	56
Roller	85	0.2	84	78	71	70	69	63	62	60
Scraper	85	0.4	87	81	74	73	72	66	65	63
Tractor	84	0.4	86	80	73	72	71	65	64	62
Vacuum Truck	85	0.4	87	81	74	73	72	66	65	63
Welder	74	0.4	76	70	63	62	61	55	54	52

Notes: RNL - Spec Max Reference Noise Level (Lmax) at 50 ft

Eastshore Boulevard Apartments Project
1711 - 1755 Eastshore Boulevard, El Cerrito, CA
Attachment 6: Construction Noise Estimates

Sheet 1: Construction Vibration Estimates

Table 1: Typical Peak Particle Velocity (PPV) Estimates (in/sec) - Equipment at Top of Bluff

Equipment	Reference PPV at 25 ft (in/sec)	Soil Attenuation Rate (n)	Estimated PPV (in/sec) at Specified Distance from Source (in feet)								
			50	100	130	150	200	250	300	350	400
Small bulldozer	0.003	1.3	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Jackhammer	0.035	1.3	*0.014*	0.006	0.004	0.003	0.002	0.002	0.001	0.001	0.001
Loaded Truck	0.076	1.3	*0.031*	*0.013*	0.009	0.007	0.005	0.004	0.003	0.002	0.002
Caisson drilling	0.089	1.3	*0.036*	*0.015*	*0.010*	0.009	0.006	0.004	0.004	0.003	0.002
Large bulldozer	0.089	1.3	*0.036*	*0.015*	*0.010*	0.009	0.006	0.004	0.004	0.003	0.002
Vibratory roller	0.210	1.3	*0.085*	*0.035*	*0.025*	*0.020*	*0.014*	*0.011*	0.01	0.01	0.01

Notes:
Reference PPV from Caltrans Transportation and Construction Vibration Guidance Manual (2020), Table 18
Soil attenuation rate from Caltrans (2020, Table 17). Assumes Soil Class II - sands, gravel, and weathered rock.
Small bulldozer is surrogate for project material handler. Large bulldozer is surrogate for project loader and crane.
Italicized , underlined, and **bold** values indicate the estimated vibration level exceeds Caltrans' barely perceptible (0.01 PPV in/sec), distincly perceptible (0.04 PPV in/sec), and strongly perceptible (0.1 PPV in/sec) guidelines, respectively, for human detection and annoyance from continuous vibration sources (Caltrans 2020).

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