CITY OF ROSEVILLE CALIFORNIA

AGENDA
June 23, 2022

PLANNING COMMISSION MEETING
6:30 p.m.
Council Chambers
311 Vernon Street, Roseville, California
www.roseville.ca.us/CORTV

The meeting may be viewed on Comcast channel 14, Consolidated Communications channel 73, and AT&T U-Verse. Planning Commission meetings are also video streamed live on the City's website at roseville.ca.us/watch and roseville.ca.us/agenda, and the City's YouTube channel at youtube.com/CityofRosevilleCa.

If you need a disability-related modification or accommodation to participate in this meeting, please contact Voice: 916-774-5200, TDD: 916-774-5220. Requests must be made as early as possible.

THE CITY OF ROSEVILLE WELCOMES YOUR PARTICIPATION

If an agenda item is open to public comment, such public comment shall be addressed to the chair of the meeting.

Public Comment - Speakers have three minutes under Public Comment to speak on issues that are not listed on the agenda and are within the City's jurisdiction. The Brown Act does not permit any action or discussion on items not listed on the agenda.

Consent Calendar - If applicable, the Consent Calendar consists of routine items that may be approved by one motion. Any person can remove an item from the Consent Calendar to be discussed separately.

Agenda Items - Speakers have five minutes to address items that are listed on the agenda.

Americans with Disabilities Act - Notify the City Clerk or Secretary at least 72 hours in advance if special assistance is required to participate in a meeting including the need of auxiliary aids or services.

Audio/Visual Presentations - If making a presentation regarding an agenda item, audio/visual materials must be submitted to the City Clerk or Secretary at least 72 hours in advance.

Roseville City Clerk 311 Vernon Street, Roseville, CA 916-774-5200 TDD 916-774-5220

1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. PUBLIC COMMENTS

5. CONSENT CALENDAR

5.1. Minutes of May 12, 2022

5.2. INFILL PCL 107 – Fourth Street DRRS, 330 Fourth St, File # PL22-0043

REQUEST

The applicant requests a Design Review Permit for a Residential Subdivision to allow the construction of a 1,195 square-foot second primary unit on the Medium-Density parcel.

Applicant: Joe Spencer, Laura Miller Design
Owner: Wes Cambron, Allstate Renovations

RECOMMENDATION

The Planning Division recommends that the Planning Commission take the following actions:

1. Adopt the two (2) findings of fact and approve the Design Review for Residential Subdivision subject to twenty-three (23) conditions of approval.

6. REQUESTS/PRESENTATIONS

6.1. SVSP PCL JM-41 and JM-30 – General Plan Amendment, Specific Plan Amendment, Rezone, Development Agreement Amendment, and Tentative Subdivision Map, 4850 Upland Dr, File # PL21-0368

REQUEST

The applicant requests approval of a General Plan Amendment, Specific Plan Amendment, and Rezone to adjust the boundary between Community Commercial (CC) Parcel JM-41 and High Density Residential (HDR) Parcel JM-30. The project will convert 0.44 acres from HDR to CC land use. The request also includes a Development Agreement Amendment to reflect the land use change and a Tentative Subdivision Map to subdivide Parcels JM-41 and JM-30 into 12 lots.

Applicant: David Cobbs, Baker Williams Engineering
Owner: Ryan Biziewski, Mourier Investments, LLC

RECOMMENDATION

The Planning Division recommends that the Planning Commission take the following actions:

1. Consider the Addendum to the Sierra Vista Specific Plan Environmental Impact Report;
2. Recommend that the City Council approve the General Plan Amendment;
3. Recommend that the City Council approve the Specific Plan Amendment;
4. Recommend that the City Council adopt the two (2) findings of fact and approve the Rezone;

5. Recommend that the City Council adopt the five (5) findings of fact and approve the third amendment to the Mourier and Computer Deductions Development Agreement; and
6. Adopt the three (3) findings of fact and approve the Tentative Subdivision Map subject to seventy-one (71) conditions of approval.

6.2. NERSP PCL 25 – Sutter MOB 7, 7 Medical Pz, File # PL 22-0061

REQUEST

The applicant requests approval of a Design Review Permit to construct a four-story medical office building and a Conditional Use Permit for a new Graduate Medical Education (GME) program proposed at the Sutter Roseville Medical Center campus. The medical office building (MOB 7) is proposed as a two-phase project, Phase 1 will consist of a four-story building (85,000 square feet) and Phase 2 will add a two-story addition to the main four-story building. The MOB 7 includes improvements to the existing site, a new accessible drop off zone, accessible parking stalls immediately in front of the building, surface parking stalls, a raised pedestrian crosswalk between the parking garage and the MOB 7, and a private outdoor patio area for students and faculty of the GME program. The GME program will occupy the entire first floor of the MOB 7 for classroom instruction and a simulation center.

Applicant: Sarah Bergman, Dreyfuss + Blackford Architecture
Property Owner: Dan Conwell, Sutter Valley Hospitals

RECOMMENDATION

The Planning Division recommends the Planning Commission take the following actions:

1. Adopt the Sutter Parking Garage Expansion & Sutter MOB 7 Negative Declaration;
2. Adopt the three (3) findings of fact and approve the Conditional Use Permit subject to two (2) conditions of approval; and
3. Adopt the four (4) findings of fact and approve the Design Review Permit subject to seventy-one (71) conditions of approval.

7. BOARD MEMBER / COMMISSIONER / STAFF REPORT

8. ADJOURNMENT

PLANNING COMMISSION COMMUNICATION

Title:	Minutes of May 12, 2022
Contact:	Lupe Nelson, lnelson@roseville.ca.us, 9916) 774-5281

Meeting Date: 6/23/2022
Item #: 5.1.

ATTACHMENTS:

Description

Minutes of May 12, 2022

DRAFT MINUTES
May 12, 2022

PLANNING COMMISSION MEETING
6:30 p.m.
Council Chambers
311 Vernon Street, Roseville, California
www.roseville.ca.us/CORTV

1. CALL TO ORDER

Chair Jensen called the meeting to order at 6:30 p.m.

2. ROLL CALL

Present: Caporusso, Covington, Haggenjos, Martin, Jensen
Absent: Brashears, Prior

3. PLEDGE OF ALLEGIANCE

Chair Jensen led those in attendance in the Pledge of Allegiance.

4. PUBLIC COMMENTS

Chair Jensen opened the Public Comment period. Hearing none, Chair Jensen closed the Public Comment Period.

5. CONSENT CALENDAR

5.1. Minutes of April 28, 2022

5.2. NIPA PCL CO-3 – The Trails at Valley Oak, 570 Roseville Pw, File # PL22- 0081

REQUEST

The applicant requests a Major Project Permit Stage 2 to evaluate the proposed architecture and development standards for the Trails at Valley Oak subdivision on Parcel CO-3 within the Hewlett Packard Campus Oaks Master Plan area.

Motion by Vice-Chair Martin, seconded by Commissioner Covington, to approve the Consent Calendar.

Roll call vote:
Ayes: Covington, Martin, Haggenjos, Caporusso, Jensen
Noes: None

The Motion passed.

6. REQUESTS/PRESENTATIONS

6.1. WRSP PCL W-60B – Westbrook Storage, 2300 Westbrook Bl, File # PL22-0019

REQUEST

The project is a self-storage facility with Recreational Vehicle (RV) storage on approximately 10 acres in the West Roseville Specific Plan. The project includes two phases. Phase 1 includes a 1,241-square-foot office, a 1,813-square-foot caretaker's unit, six (6) self-storage buildings totaling 131,972 square feet, and 279 RV storage spaces. Phase 2 of the project would eliminate some of the RV storage spaces in order to accommodate a seventh self-storage building for a total of 202,601 square feet and 173 RV spaces. The project entitlements include a Specific Plan Amendment to allow an on-site caretaker's unit with approval of an Administrative Permit, a Design Review Permit to review the site design, and an Administrative Permit for the proposed on-site caretaker's unit.

Senior Planner, Derek Ogden, presented the staff report.

Chair Jensen opened the Public Hearing and invited comments from the applicant and/or audience.

Applicant representative, Cole Herron, stated he had received a copy of the staff report and was in agreement with staff's recommendation.

Hearing none, Chair Jensen closed the public comment period and Public Hearing.

Motion by Commissioner Caporusso, seconded by Commissioner Haggenjos, to:

1. Adopt the Westbrook Storage Initial Study/Negative Declaration;
2. Recommend the City Council adopt a resolution approving the Specific Plan Amendment;
3. Adopt the four (4) findings of fact and approve the Design Review Permit subject to eighty-four (84) conditions of approval; and
4. Adopt the three (3) findings of fact and approve the Administrative Permit subject to four (4) conditions of approval.

Roll call vote:
Ayes: Martin, Covington, Caporusso, Haggenjos, Jensen
Noes: None

The Motion passed.

6.2. NERSP PCL 25 – Sutter Parking Garage Expansion, 12 Medical Plaza, File # PL22-0024

REQUEST

The applicant requests approval of a Design Review Permit (DRP) to allow construction of a six-story parking garage as an expansion to an existing five-story parking garage located on the Sutter Roseville Medical Center campus. The new 192,000 square foot, six-story parking garage would provide an additional 551 parking stalls to the campus.

Associate Planner, Escarlet Mar, presented the staff report.

Commissioner Discussion

- A Commissioner asked if Sutter administration reviewed the staff memo, supported staff's response and was in support of moving forward with the project. The staff memo was in regards to a letter submitted by Lozeau Drury, on behalf of the Laborer's International Union of North America, which alleged that the Negative Declaration, supporting the project included several flaws and called for the preparation of an Environmental Impact Report. Staff provided the Commission with a response memo addressing the comments, and concluding that with one minor correction, the Negative Declaration was an adequate environmental document and could be relied upon for compliance with CEQA. Staff noted that the memo had been provided to Sutter administration and Sutter agreed with the findings and were comfortable with moving forward with the project.

Chair Jensen opened the Public Hearing and invited comments from the applicant and/or audience.

Applicant representative, Dan Conwell, stated he had received a copy of the staff report and was in agreement with staff's recommendation.

Hearing none, Chair Jensen closed the public comment period and Public Hearing.

Commissioner Discussion

- A Commissioner asked staff if the documents referenced in the staff report were accessible to the public. Staff responded that documents are available for review on the City's website or may be reviewed at the City's public counter.
- A Commissioner expressed his thanks to Sutter for recognizing that there are parking issues.
- A Commissioner expressed his gratefulness for the medical services provided by Sutter.

Motion by Vice-Chair Martin, seconded by Commissioner Covington to:

1. Adopt the Sutter Parking Garage Expansion & Sutter MOB 7 Negative Declaration; and,
2. Adopt the four (4) findings of fact and approve the Design Review Permit subject to sixty-two (62) conditions of approval. Condition Number 3 was removed from the draft Conditions of Approval.

Roll call vote:
Ayes: Caporusso, Haggenjos, Martin, Covington, Jensen
Noes: None

The Motion passed.

6.3. Zoning Ordinance Updates 2022, File # PL21-0318

REQUEST

The request is to amend portions of Title 19 of the Roseville Municipal Code (Zoning Ordinance) to enhance the readability and clarity of the regulations and definitions, and make additional code changes to address new State laws. The changes include: adding required findings for disapproval of qualifying Housing Projects based on the California Government Code (Chapter 19.78); updating the Commercial Zone Districts to allow Small Community Care facilities (Chapter 19.10) and multi-family in the Neighborhood and Community Commercial zoning districts (Chapter 19.12); updating the Residential development standards to require an Administrative Permit for additions greater than 700 square feet on single-family or two-family dwelling units (Chapter 19.10); clarifying how the Professional Office parking requirement is calculated and, modifying the requirements for loading areas (Chapter 19.26); updating the Fast Food Restaurant outdoor parking requirement to be consistent with the indoor parking requirement (Chapter 19.52); updating the Veterinary Hospital definition (Chapter 19.08); clarifying that patio covers constructed concurrently with the main residence are considered part of the primary structure for setback purposes (19.22); updating the Design Review process for Compact Residential Development to allow existing residential properties to expand their building without having to procure a Design Review for Residential Subdivision (DRRS) permit (Chapter 19.10); updating the Project Expiration section to allow the Planning Manager to grant extensions that are longer than one (1) year (Chapter 19.76); adding the Tower Theater to the list of significant buildings in the City (Chapter 19.61); and revise any typos throughout Zoning Ordinance. In addition, staff proposes to update various code sections based on new State Legislation related to Emergency Shelters parking requirements (AB 139), Transitional and Supporting Housing (AB 2162), Low-Barrier Navigation Centers (AB 101), Small Congregate Living Health Facility (State of California Health and Safety Code Section 1267.16), Antennas and Communications Facilities (AB 57), and Small and Large Family Day Care Homes (SB 234). Lastly, staff proposes to update the Large Community Care Facilities and Caretaker/Employee Housing to comply with the Housing Element Program 28 and 31.

Associate Planners, Escarlet Mar, presented the staff report.

Chair Jensen opened the Public Hearing and invited public comments from the audience. Hearing none, Chair Jensen closed the public comment period and Public Hearing.

Motion by Commissioner Covington, seconded by Commissioner Caporusso, to:

1. Recommend the City Council adopt the two (2) findings of fact and approve the Ordinance Amendments to Title 19 of the Roseville Municipal Code.

Roll call vote:
Ayes: Haggenjos, Caporusso, Covington, Martin, Jensen
Noes: None

The Motion passed.

6.4. Housing Element Implementation – Land Use Policy, File # PL22-0037

REQUEST

The request is a policy entitled "Guidelines for Specific Plan Amendments Affecting or Proposing Residential Land Use." The proposed policy implements General Plan Housing Element Program 14 (Rezone Program for Adequate Sites), the Vacant Sites – Residential Intensification strategy. The policy would require Specific Plan Amendments of a certain size to also increase the density of any High Density Residential land which is within the Specific Plan and is owned or controlled by the applicant/owner. The purpose of the policy is to increase the citywide unit capacity of High Density Residential land, for the purpose of achieving and maintaining the City's lower income Regional Housing Needs Allocation (RHNA) obligation.

Senior Planner, Lauren Hocker, presented the staff report.

Commissioner Discussion

- A Commissioner asked what the Building Industry Association's response has been regarding the policy. Staff responded that the BIA is not enthusiastic about the policy, however they realized it was necessary to help implement the Housing Element and it is only one of the strategies needed to achieve the City's RHNA target.
- A Commissioner expressed concern with having to balance the adoption of policies that may not result in more affordable housing with actions that actually result in low income housing being built.

Chair Jensen opened the Public Hearing and invited comments from the audience. Hearing none, Chair Jensen closed the public comment period and Public Hearing.

Motion by Commissioner Caporusso, seconded by Commissioner Haggenjos, to:

1. Recommend City Council adopt a Resolution approving the policy document "Guidelines for Specific Plan Amendments Affecting or Proposing Residential Land Use."

Roll call vote:
Ayes: Covington, Haggenjos, Martin, Caporusso, Jensen
Noes: None

The Motion passed.

7. COMMISSIONER / STAFF REPORT

Staff Report

- The City Council approved the Bonny Knoll project at its May 11, 2022 meeting.
- There will not be a May 26, 2022 Planning Commission meeting.

8. ADJOURNMENT

Motion by Vice-Chair Martin, seconded by Commissioner Haggenjos, to adjourn the meeting. The Motion passed unanimously at 7:23 p.m. with a voice vote.

PLANNING COMMISSION COMMUNICATION

Title:	INFILL PCL 107 – Fourth Street DRRS, 330 Fourth St, File # PL22-0043
Contact:	Sean Morales, smorales@roseville.ca.us, (916) 774-5282

Meeting Date: 6/23/2022
Item #: 5.2.

ATTACHMENTS:

Description

Staff Report

Attachment 1 R2 Development Standards

Exhibit A Plans

CITY OF ROSEVILLE CALIFORNIA

Planning Division Staff Report
Planning Commission Meeting June 23, 2022

Prepared by: Sean Morales, Associate Planner

ITEM 5.2: Design Review for Residential Subdivision – INFILL PCL 107 – Fourth Street DRRS – File # PL22-0043

REQUEST

The applicant requests a Design Review Permit for a Residential Subdivision to allow the construction of a 1,195 square-foot second primary unit on the Medium-Density parcel.

Applicant – Joe Spencer, Laura Miller Design
Owner – Wes Cambron, Allstate Renovations

SUMMARY RECOMMENDATION

The Planning Division recommends that the Planning Commission take the following actions:

1. Adopt the two (2) findings of fact and approve the Design Review for Residential Subdivision subject to twenty-three (23) conditions of approval.

SUMMARY OF OUTSTANDING ISSUES

There are no outstanding issues associated with this request. The applicant has reviewed and is in agreement with the recommended conditions of approval.

BACKGROUND

The project site is located on parcel 107 within the City's Infill area, on the northeast corner of Fourth Street and D Street. The parcel has a land use designation of Medium-Density Residential at 8.1 units/acre (MDR-8.1) and a zoning designation of Two-Family Residential (R2). The property is lot 10 within the R.F. & E.A. Theiles subdivision, which was filed on May 5, 1906. County Assessor's parcel records show that lot 10 is made up of a portion of two former lots, which were once oriented toward D Street and were merged and resubdivided to front onto Fourth Street at some time prior to 1953. There is one existing single-family residence on the property, which was built in 1922. The applicant has also submitted plans for an Accessory Dwelling Unit on the southeast corner of the parcel, which is not subject to design review.

The current project request is for a Design Review Permit for a Residential Subdivision to allow the construction of a 1,195 square-foot second primary unit on the Medium-Density parcel. The applicant also proposes to remodel the exterior and expand the footprint by 141 sf for the existing home on-site.

SITE INFORMATION

Address: 330 Fourth Street

Total Size: .19 acres

Topography and Setting: The project site is developed with an existing single-family home and is generally flat. Surrounding land uses are Medium-Density Residential development. The Johnson Memorial Pool is across D Street to the west.

Figure 1: Project Location



EVALUATION

Section 19.10.045 of the Zoning Ordinance specifies that a Design Review Permit is required for all compact residential development (attached or detached single-family units on land with a General Plan land use designation of Medium Density Residential or higher). Compact residential development products are more dense and urban in nature than is typical of the suburban setting, and Design Review gives staff the opportunity to examine the proposed design to determine compatibility with the surrounding community, and compliance with the intent of the Community Design Guidelines and other applicable design standards. Pursuant to Zoning Ordinance Section 19.78.060(I), the required Findings for a Design Review Permit for a Residential Subdivision are as follows:

1. ***The residential design, including the height, bulk, size, and arrangement of buildings is harmonious with other buildings in the vicinity.***

2. ***The residential design is consistent with applicable design guidelines.***

Site Plan: This project is subject to the development standards of the City's Zoning Ordinance and the City's Community Design Guidelines (CDG). The project applies the R2 development standards and does not propose any modification to the existing standards. The standards are included for reference as Attachment 1 and used to evaluate the project in Table 1 below. The setback distances of the existing home on-site are not proposed to be changed with the project, so only the new primary unit was evaluated for consistency with the development standards and was found to be consistent.

Table 1: Applicable R2 Development Standards

Criteria	Zoning Ordinance Standard	Proposed
Height	35’ maximum	16’7”
Front Setback	15’	15’11”
Side Setback	5’	5’
Rear Setback	20’	20’
Parking	2 spaces for new primary unit	2 spaces
Lot Coverage	35%	27%

Utilities: The existing water and sewer connections to the site are routed from mains in the alley to the east and through the neighboring property at 320 Fourth Street. The service will need to be upsized in order to provide adequate utilities to the site. The current layout crossing a neighboring property without easement does not meet City standards. The City will therefore construct an extension of the sewer main and new lateral to serve the property from Fourth Street. The applicant will be required to construct the water and sewer service to the structures as stated in Conditions of Approval 11 and 12. The utility layout was not finalized before final submittal of Exhibit A, which incorrectly shows the lines crossing the neighboring property. This inconsistency will be corrected during building permit review.

Architecture, Color, and Materials: The applicant proposes home designs for the two units that are harmonious with one another as well as other buildings in the vicinity. The neighborhood is characterized by a mix of architectural styles. However, the most prominent style is the craftsman bungalow. The applicant proposes building elevations that include architectural details consistent with this style including horizontal lap siding, a low-pitch front-facing gable roof, window trim that matches the home trim, faux-cedar shake within the gable, and a front porch (Figure 2). Many of these same design elements are found in the two homes adjacent to the property to the north (107 D St.) and east (320 Fourth St.) as shown in Figure 3. The elevations also utilize colors consistent with the style and neighboring homes and durable materials.

Figure 2: Proposed Front Elevations 111 D St. (Left) and 330 Fourth St (Right)

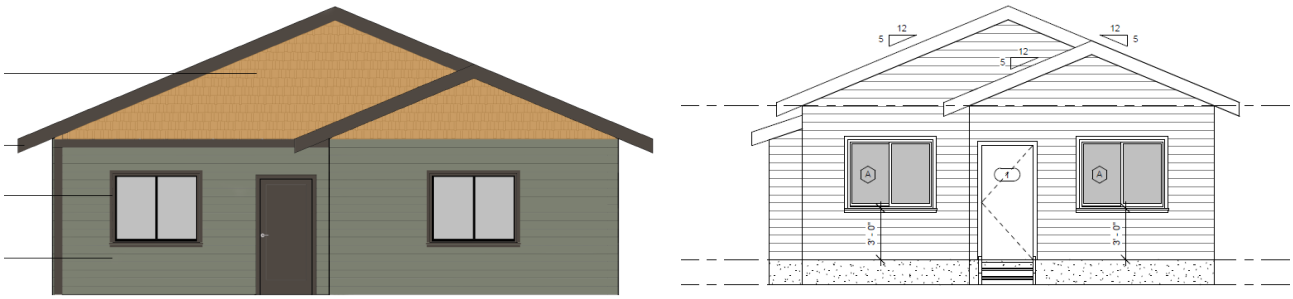


Figure 3: Surrounding Homes - 107 D St. (Left) and 320 Fourth St. (Right)




Landscape: The proposed landscape will include a mix of groundcovers, shrubs of varying heights, and shade and accent trees for the front, side, and rear yards. The selected landscape will provide a mix of colors and textures which will complement the streetscape and is consistent with the Community Design Guidelines and the City's Water Efficient Landscape Ordinance (WELO). The applicant proposes to retain one mature citrus tree on-site as well as the existing elm trees within the planter adjacent to the right of way.

PUBLIC OUTREACH

The proposed project was distributed to the various agencies and departments which have requested notice of City applications, and all comments were considered and incorporated into the Conditions of Approval, as appropriate. Notice of the application was also distributed to the Roseville Coalition of Neighborhood Associations. No comments were received. A public notice of the Planning Commission hearing was published on June 11th, and was distributed to all property owners within 300 feet of the project site. In response to the notice, a neighboring resident at 320 Fourth Street contacted staff concerning the existing utilities for 330 Fourth Street that run under the home at 320 Fourth Street and how those lines would be upgraded. Staff explained to the resident that a main extension will be constructed on Fourth Street and no work will need to be done on the neighboring property.

CONCLUSION

Staff has reviewed the development plans and found them to be consistent with the applicable standards and guidelines. In addition, the proposed designs are similar to other housing products located in the vicinity of the project. As discussed above and with the following conditions, staff supports approval of the proposed project.

ENVIRONMENTAL DETERMINATION

The project is categorically exempt from the environmental review requirements of the California Environmental Quality Act (CEQA) pursuant to Section 15303, Class 3 "New Construction or Conversion of Small Structures", Section 15332, "In-Fill Development Projects", and pursuant to Section 305 of the City of Roseville CEQA Implementing Procedures. The project involves construction of one additional primary dwelling unit on an infill property within city limits that is no more than five (5) acres in size and is surrounded

by urban uses, and can be adequately serviced by all required utilities and public services. As such, no additional environmental document is required.

RECOMMENDATION

The Planning Division recommends the Planning Commission take the following actions:

1. Adopt the findings of fact as stated in the staff report and approve the **DESIGN REVIEW FOR RESIDENTIAL SUBDIVISION – INFILL PCL 107 – FOURTH STREET DRRS – FILE # PL22-0043** subject to twenty-three (23) conditions of approval.

CONDITIONS OF APPROVAL FOR DESIGN REVIEW FOR RESIDENTIAL SUBDIVSION FILE # PL22-0043

1. The unit designs and landscape plans for **Fourth Street DRRS** are approved as described in **Exhibit A**, except as modified by these conditions of approval. (Planning)

2. This permit shall expire on **June 23, 2024**. Prior to said expiration date, the applicant may apply for an extension of time, provided this approval does not extend the expiration beyond **June 23, 2025**. Effectuation of this DRRS shall occur with the residential Building Permit. (Planning)

3. The landscape plan shall comply with the City of Roseville Water Efficient Landscape Ordinance. (Planning)

4. Accessory structures (patio covers, gazebos, etc.) shall be consistent with the development standards outlined in Zoning Ordinance Section 19.22.030 (C). This includes setback, height, and coverage restrictions for both enclosed and unenclosed structures. (Planning)

PRIOR TO ISSUANCE OF BUILDING PERMITS:

5. The project Landscape Plans shall comply with the following:

   a. The Landscape Plan shall indicate the location of, and be designed to avoid conflicts with, all pole-mounted light fixtures and utility equipment including (but not limited to) electric transformers, switchgear, and overhead lines, backflow preventers, fire department connections, and public water, sewer, and storm drain facilities. (Planning, Fire, EUD, Electric, Public Works)

   b. At a minimum, landscaped areas not covered with live material shall be covered with a rock, (3") bark (no shredded bark) or (3") mulch covering. (Planning)

6. All on-site external lighting shall be installed and directed to have no off-site glare. (Planning)

7. Building permit plans shall comply with all applicable code requirements (California Building Code – CBC – based on the International Building Code, California Residential Code- CRC- based on the International Residential Code, California Green Building Standards Code-CGBSC, California Mechanical Code – CMC – based on the Uniform Mechanical Code, California Plumbing Code – CPC – based on the Uniform Plumbing Code, California Fire Code – CFC – based on the International Fire Code – with City of Roseville Amendments – RFC, California Electrical Code – CEC – based on the National Electrical Code, and California Energy Standards – CEC T-24 Part 6), California Title 24 and the American with Disabilities Act - ADA requirements, and all State and Federally mandated requirements in effect at the time of submittal for building permits (contact the Building Division for applicable Code editions). (Building)

8. Prior to the issuance of building permits, the property owner shall pay into the following fee programs: Citywide Drainage Fee, Citywide Traffic Mitigation Fee (TMF), Highway 65 Joint Partners Association (JPA), South Placer Regional Transportation Authority (SPRTA), and City/County Fee. (Engineering)

9. Applicant to provide new driveway cut-out along D Street, remove and replace any sidewalk damaged during construction. (Engineering)

10. The applicant shall install new water service for the existing residence, new residence and the new ADU. The applicant will be responsible for the water install downstream of the meter box which will be installed in the planter strip. (Environmental Utilities)

11. The applicant shall install a new sewer service for the existing residence, new residence and new ADU, once the new sewer main, lateral and cleanout have been installed. (Environmental Utilities)

12. The design and installation of all fire protection equipment shall conform to the California Fire Code and the amendments adopted by the City of Roseville, along with all standards and policies implemented by the Roseville Fire Department. (Fire)

13. The applicable codes and standards adopted by the City shall be enforced at the time construction plans have been submitted to the City for permitting. (Fire)

14. It is the developer's responsibility to notify PG&E of any work required on PG&E facilities. (PG&E)

DURING CONSTRUCTION AND PRIOR TO ISSUANCE OF OCCUPANCY PERMITS:

15. All electric metering shall be directly outside accessible. (Electric)

16. It is the responsibility of the developer to ensure that all existing electric facilities remain free and clear of any obstruction during construction and when the project is complete. (Electric)

17. The new meters must be located in the existing location. The service drop must be located in the same area of the meters. (Electric)

OTHER CONDITIONS OF APPROVAL

18. The project is subject to the noise standards established in the City's Noise Ordinance. In accordance with the City's Noise Ordinance project construction is exempt between the hours of seven a.m. and seven p.m. Monday through Friday, and between the hours of eight a.m. and eight p.m. Saturday and Sunday. Provided, however, that all construction equipment shall be fitted with factory installed muffling devices and that all construction equipment shall be maintained in good working order. (Building)

19. The developer (or designated consultant) shall certify that the building foundation location has been placed according to all approved setback requirements shown on the approved site plan. The developer shall prepare a written statement confirming building placement and provide an original copy to the City Building Department Field Inspector at the time of or prior to the foundation inspection. (Building)

20. The address for this project shall be 330 Fourth St. The address for the proposed new residence shall be 111 D St. The address for the proposed ADU shall be 330 Fourth St. Unit A. (Business Services) (Business Services)

21. All alley loaded driveways shall have the address and street name of the designated unit as identified on the approved city lot maps. (Fire)

22. Fences and walls shall be consistent with the locations and treatments specified in the Zoning Ordinance. (Planning)

23. The location and design of the gas service shall be determined by PG&E. The design of the gas service for this project shall not begin until PG&E has received a full set of City approved improvement plans for the project. (PG&E)

Attachments

1. Two-Family Residential Development Standards

Exhibits

A. Plans

Note to Applicant and/or Developer: Please contact the Planning Division staff at (916) 774-5276 prior to the Commission meeting if you have any questions on any of the recommended conditions for your project. If you challenge the decision of the Commission in court, you may be limited to raising only those issues which you or someone else raised at the public hearing held for this project, or in written correspondence delivered to the Planning Manager at, or prior to, the public hearing.

(Ord. 6198 § 1, 2020; Ord. 5974 § 7, 2018; Ord. 5428 § 1, 2014.)

19.10.030 Residential zone general development standards.

⚠ **Alert:** This item has been affected by: Ordinance 6476. See the CodeAlert page for details on recent amendments and newly-added provisions.

A. Residential Development Standards. Permitted uses and associated structures shall comply with the following development standards, in addition to any other applicable requirements of this title:

RESIDENTIAL ZONE GENERAL DEVELOPMENT STANDARDS

	Requirement by Zoning District					
	R1	**RS** with attached sidewalk(10)	**RS** with separated sidewalk(8), (10)	**R2**	**R3(2)**	**RMU**
Area, interior lot	6,000 sq ft	4,500 sq ft	4,275 sq ft	6,000 sq ft	6,000 sq ft	None (7)
Area, corner lot	7,500 sq ft	5,500 sq ft	4,710 sq ft	7,500 sq ft	7,500 sq ft	
Width, interior	60 ft	45 ft	45 ft	60 ft	60 ft	
Width, corner	75 ft	55 ft	50 ft	75 ft	75 ft	
Residential Density						
Maximum number of primary dwelling units per lot	1 dwelling	1 dwelling	1 dwelling	2 dwellings(1)	As provided by General Plan, but a minimum of 3 dwellings	As provided by General Plan
Maximum number of accessory/junior dwelling units per lot(11)	Up to 2 dwellings	Up to 2 dwellings	Up to 2 dwellings	Up to 2 dwellings	Up to 2 dwellings	Up to 2 dwellings
See Chapter 19.22 for accessory structure development standards for the following standards						
Setbacks (minimum)						

Attachment 1

	Requirement by Zoning District					
	R1	**RS** with attached sidewalk[10]	**RS** with separated sidewalk[8], [10]	**R2**	**R3**[2]	**RMU**
Front[9]	20 ft for interior lots; 15 ft for corner lots; 20 ft minimum driveway depth	15 ft to living space or side wall of garage; 12.5 ft to porch; 18 ft minimum driveway depth[6]	10 ft to first floor living space or side wall of garage; 7.5 ft to porch, but in no case may encroach into a PUE; 15 ft to second floor living space; 18 ft minimum driveway depth[6]	20 ft for interior lots; 15 ft for corner lots; 20 ft minimum driveways depth	20 ft minimum on all street frontages	None[7]
Sides[9]	5 ft interior; 15 ft street side on corner	5 ft interior; 12.5 ft street side on first floor; 15 ft street side on second floor	5 ft interior; 10 ft street side on first floor; 13 ft street side on second floor	5 ft interior; 15 ft street side on corner	5 ft interior; 20 ft minimum on all street frontages	None[7]
Rear	20% of lot depth; need not exceed 20 ft; 10 ft minimum[3]	10 ft minimum with minimum useable open space of 700 sq ft or 500 sq ft where a usable front porch is provided[4]	10 ft minimum with minimum useable open space of 500 sq ft[4]	20% of lot depth; need not exceed 20 ft; 10 ft minimum	20 ft; 20 ft minimum on all street frontages	None[7]
Lot Coverage (primary buildings)	35% for 2 story; 45% for 1 story	None[4]	None[4]	40%	50%	None[7]
Height Limits	35 ft	35 ft	35 ft	35 ft	45 ft[5]	None[7]
Additions to the primary structure greater than 700 square feet in area[12]	May only be permitted upon approval of an Administrative Permit					

Notes:

(1) Attached or detached. Detached dwelling units must maintain a minimum 10-foot building separation.

(2) The general development standards for the R3 district may be modified through approval of a Design Review Permit.

(3) On corner lots, the minimum rear setback may be determined by using an average of three measurements taken at the ends of the structure and a point midway between the ends of the structure. The measurements shall be made perpendicular to the rear lot line.

(4) The rear and side yards may be utilized to meet the minimum usable open space provided the minimum dimension, measured perpendicular to the applicable rear or side yard is 10 feet. Maximum coverage is a function of lot size, required setbacks and usable open space. A minimum usable open space of 500 square feet may be applied where a front porch is provided with minimum dimensions of six feet by 10 feet exclusive of entry way.

(5) Except for units immediately adjacent to the R1 and RS zone districts, where the height limit shall be 35 feet.

(6) Minimum driveway depth of 18 feet requires a roll-up garage door.

(7) As provided in development standard overlay or special area overlay district.

(8) Sidewalk separated from back of curb by five-foot planter strip.

(9) Front setback (and side setback where adjacent to street) measured from back of walk. Fence side yard setback is five feet from back of walk where facing a street. In the absence of sidewalk, setbacks measured from the edge of right-of-way.

(10) Variations to the standards and other housing product types may be permitted subject to processing of a Design Review Permit for Residential Subdivision (DRRS) concurrent with the approval of a tentative subdivision map and review of product type.

(11) A combination of up to two accessory dwelling/junior accessory dwelling units are permitted within areas zoned to allow single-family, two-family or multi-family residential use provided the lot contains an existing or proposed single-family dwelling, two-family or multi-family unit as defined in Sections 19.08.080(F)(1) and (F)(2) (Residential Use Types) and the accessory dwelling/junior accessory dwelling unit complies with the standards identified in Chapter 19.60 (Accessory Dwelling Units). See Chapter 19.60 for the maximum number and combination of units allowed per lot. For purposes of density, accessory dwelling units shall be deemed to be an accessory use or an accessory building or structure and shall not be considered to exceed the allowable density for the lot upon which it is located.

(12) Additions (attached or detached) to primary structures that exceed 700 gross square feet in area may be permitted upon approval of an Administrative Permit, which may include a public hearing as provided in Sections 19.74.010 and 19.78.020. Excludes accessory dwelling units complying with the standards identified in Chapter 19.60 (Accessory Dwelling Units).

Exhibit A

A NEW RESIDENCE PROJECT FOR:

111 D STREET
ROSEVILLE, CA 95678

1

SCOPE OF WORK:

CONSTRUCT NEW 1,195 S.F. SINGLE FAMILY RESIDENCE.

- SLAB FOUNDATION
- 2X6 EXTERIOR WALLS W/ FIBER CEMENT LAP SIDING EXTERIOR FINISH
- TRUSS ROOF WITH ASPHALT SHINGLE ROOFING
- VINYL WINDOWS
- HYBRID ELECTRIC WATER HEATER
- (N) 125-AMP ELECTRICAL PANEL
- 2.56 KW ROOF MOUNTED PHOTOVOLTAIC SYSTEM

1

1

UTILITY NOTES:

- NO GAS TO BE INSTALLED IN S.F.R.
- (N) 1" WATER SERVICE TO SERVE PROPOSED S.F.R.
- PROPOSED S.F.R. PLUMBING TO TIE INTO (E) 4" SEWER SERVICE. PROPOSED S.F.R., PROPOSED ADU (UNDER SEPERATE PERMIT) AND MAIN RESIDENCE WILL SHARE SEWER SERVICE.
- (E) ELECTRIC SERVICE TO SERVE PROPOSED S.F.R. AND PROPOSED ADU (UNDER SEPERATE PERMIT) VIA (N) TRIPLE METER.

SHEET INDEX:

SHEET INDEX	
Sheet Number	Sheet Name
A - 0.0	TITLE SHEET
A - 0.1	CALGREEN CHECKLIST
A - 0.2	CALGREEN CHECKLIST CONT.
A - 1.0	PROPOSED FLOOR PLAN
A - 1.1	ROOF PLAN
A - 2.0	POWER PLAN
A-3.0	EXTERIOR ELEVATIONS
PV-0	PV COVER SHEET
PV-1	PV PLOT PLAN
PV-2	PV SINGLE LINE
PV-3	PV LABELS AND MARKINGS
PV-4	PV RACKING DATASHEETS
PV-5	PV RACKING ENGINEER STAMP
PV-6	PV MODULE DATA SHEET
PV-7	PV MICROINVERTER DATASHEET
PV-8	PVE COMBINER DATASHEET
PV-9	PV EQUIPMENT FIRE RATINGS
S1.0	FOUNDATION & SHEAR WALL PLAN
S2.0	SHEARWALL PLAN
S3.0	ROOF FRAMING PLAN
SD1	STRUCTURAL DETAILS
SD2	STRUCTURAL DETAILS
SD3	STRUCTURAL DETAILS
SN1	STRUCTURAL NOTES & SPECIFICATIONS
T24-1	2019 TITLE 24 PART 6 ENERGY CODE
T24-2	2019 TITLE 24 PART 6 ENERGY CODE
T24-3	2019 TITLE 24 PART 6 ENERGY CODE

GENERAL NOTES:

- THE INFORMATION ON THIS SET OF CONSTRUCTION DOCUMENTS IS RELATED TO THE BASIC DESIGN INTENT OF THE PROJECT. THEY ARE INTENDED AS A CONSTRUCTION AID, NOT A SUBSTITUTE FOR GENERALLY ACCEPTED GOOD BUILDING PRACTICES AND COMPLIANCE WITH CURRENT CALIFORNIA STATE BUILDING CODES. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING STANDARD CONSTRUCTION DETAILS AND PROCEDURES TO ENSURE A PROFESSIONALLY FINISHED, STRUCTURALLY SOUND, AND WEATHERPROOF COMPLETED PROJECT.

- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORK AND CONSTRUCTION MEETS ALL CURRENT FEDERAL, STATE, COUNTY, AND LOCAL CODES, ORDINANCES, REGULATIONS, ETC. THESE CODES ARE TO BE CONSIDERED PART OF THE SPECIFICATIONS FOR THIS BUILDING AND SHOULD BE ADHERED TO EVEN IF THEY ARE IN VARIANCE OF THE PLAN.

- DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE DRAWING (DO NOT SCALE DRAWING.)

-THE ARCHITECT HAS NOT BEEN ENGAGED FOR CONSTANT CONSTRUCTION SUPERVISION AND ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION COORDINATING WITH THESE PLANS, NOR RESPONSIBILITY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THERE ARE NO WARRANTIES FOR A SPECIFIC USE EXPRESSED OR IMPLIED IN THE USE OF THESE PLANS.

CALIFORNIA ENERGY STANDARDS COMMISSION NOTES:

1. A MIN. OF 50% OF THE TOTAL RATED WATTAGE OF PERMANENTLY INSTALLED LIGHTING IN KITCHENS SHALL BE HIGH EFFICACY.
- UP TO 50 WATTS FOR DWELLING UNITS LESS THAN OR EQUAL TO TO 2,500 S.F. OR 100 WATTS FOR DWELLING UNITS LARGER THAN 2,500 S.F. MAY BE EXEMPT FROM THE 50 PERCENT HIGH EFFICACY REQUIREMENTS WHEN THE FOLLOWING CONDITIONS ARE MET: ALL LOW EFFICACY LIGTHING IN THE KITCHEN ARE CONTROLLED BY A MANUAL-ON OCCUPANT SENSOR, DIMMER, ENERGY MANAGEMENT CONTROL SYSTEM, OR A MULTISCENCE PROGRAMMABLE CONTROL SYSTEM; AND ALL PERMANENTLY INSTALLED LIGHTING IN GARAGES, LAUNDRY ROOMS, CLOSETS GREATER THAN 70 S.F., AND UTILITY ROOMS ARE HIGH EFFICACY AND ARE CONTROLLED BY MANUAL-ON OCCUPANT SENSOR.

2. PERMANENTLY INSTALLED LIGHTING IN BATHROOMS, ATTACHED AND DETACHED GARAGES, LAUNDRY ROOMS, CLOSETS, AND UTILITY ROOMS SHALL BE HIGH EFFICACY LIGHTING. LOW EFFICACY LIGHTING SHALL BE ALLOWED PROVIDED THAT THEY ARE CONTROLLED BY A MANUAL ON OCCUPANY SENSOR TO COMPLY WITH SECTION 119 OF THE STANDARDS OR ARE WITHIN CLOSETS OF LESS THAN 70 S.F. PERMANENTLY INSTALLED LIGHTING LOCATED IN ROOMS OR AREAS OTHER THAN IN KITCHEN, BATHROOMS, GARAGES, LAUNDRY ROOMS, CLOSETS, AND UTILITY ROOMS SHALL BE HIGH EFFICACY LIGHTING. LOW EFFICACY LIGHTING SHALL BE ALLOWED PROVIDED THEY ARE CONTROLLED BY EITHER A COMPLYING DIMMER SWITCH OR MANUAL-ON OCCUPANT SENSOR. EXTERIOR LIGHTING SHALL BE HIGH EFFICACY OR BE CONTROLLED BY A MANUAL ON/OFF SWITCH, A MOTION SENSOR AND ONE OF THE FOLLOWING: PHOTO CONTROL, ASTRONOMICAL TIME CLOCK OR ENERY MANAGEMENT CONTROL SYSTEMS.

3. BATHROOMS, TOILET ROOMS, AND KITCHENS SHALL BE PROVIDED WITH LOCAL VENTILATION FANS.

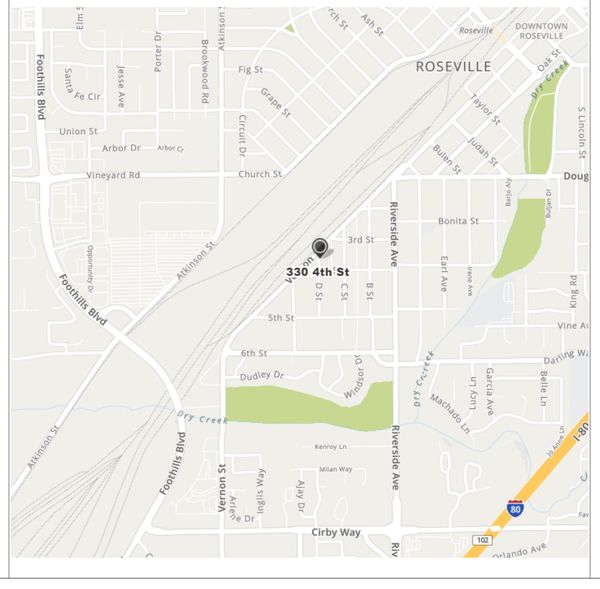
PROJECT DATA:

ADDRESS:	111 D STREET ROSEVILLE, CA 95678
APN:	014-022-012-000 1
JURISDICTION:	CITY OF ROSEVILLE
S.F. OF PROPOSED ADU:	1,195 S.F.
FIRE SPRINKLERS IN EXISTING RESIDENCE:	NO 1
FIRE SPRINKLERS:	YES
FOUNDATION:	1 SLAB
OCCUPANCY:	R-2
CONSTRUCTION:	TYPE V-B
CODES:	2019 CALIFORNIA RESIDENTIAL BUILDING CODE 2019 CALIFORNIA ELECTRICAL CODE 2019 CALIFORNIA MECHANICAL CODE 2019 CALIFORNIA PLUMBING CODE 2019 CALIFORNIA ENERGY CODE 2019 CALGREEN CODE

PROJECT CONTACTS:

OWNER/CONTRACTOR:	ALLSTATE RENOVATIONS INC
ARCHITECT:	LAURA MILLER DESIGN CONTACT: LAURA MILLER 889 EMBARCADERO DRIVE, STE 102 EL DORADO HILLS, CA 95762 916.607.3321
STRUCTURAL ENGINEER:	WCD ASSOCIATES CONTACT: WESLEY CULLUMBER 6930 DESTINY DRIVE, STE 300 ROCKLIN, CA 95677
PV CONTRACTOR:	LOTUS ENERGY PO BOX 15 COLOMA, CA 9561 530.490.8501

VICINITY MAP:



PLOT PLAN:

WHERE ADDITION IS LESS THAN 10' FROM PROEPRTY LINE GRADE TO BE SLOPED AT 2% SO THAT WATER IS DIRECTED AWAY FROM STRUCTURE AND TOWARDS THE ALLEY

(N) ELECTRICAL LINE

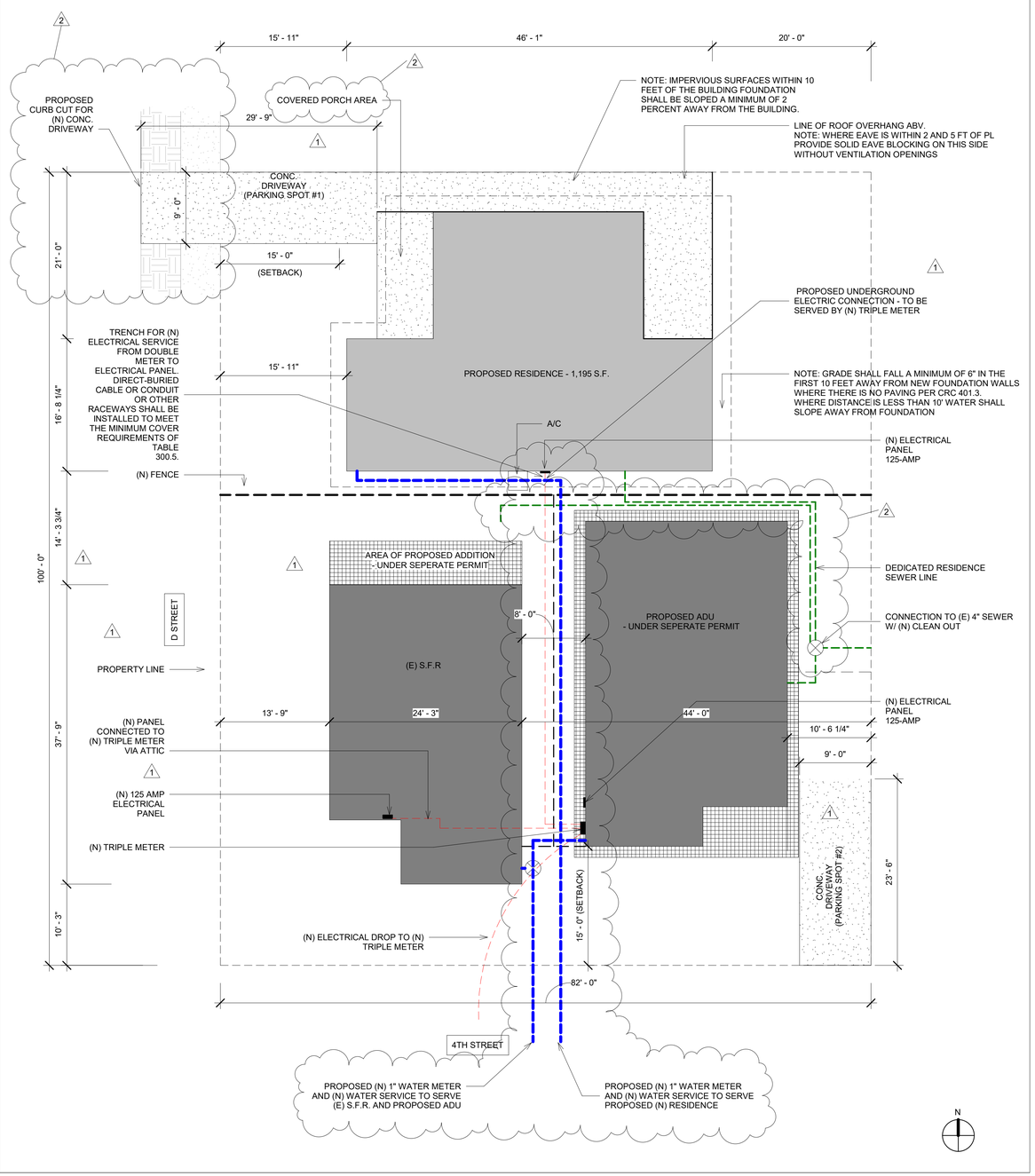
(N) PROPOSED WATER SERVICE

(E) 4" SEWER LINE

(N) S.F.R.

(N) CONCRETE

LANDSCAPE AREA



LAURA MILLER DESIGN
architecture + interiors
889 Embarcadero Drive, Suite 102
El Dorado Hills, Ca 95762
laura@lauramiller-design.com
lauramiller-design.com
916.607.3321

LICENSED ARCHITECT
LAURA A. MILLER
No. C-35317
REN. 4/30/23
STATE OF CALIFORNIA

NEW RESIDENCE
111 D STREET
ROSEVILLE, CA 95678

No.	Date	Description
1	APRIL '22	PLAN REVIEW 1
2	MAY '22	PLAN REVIEW 2

Sheet Name: TITLE SHEET

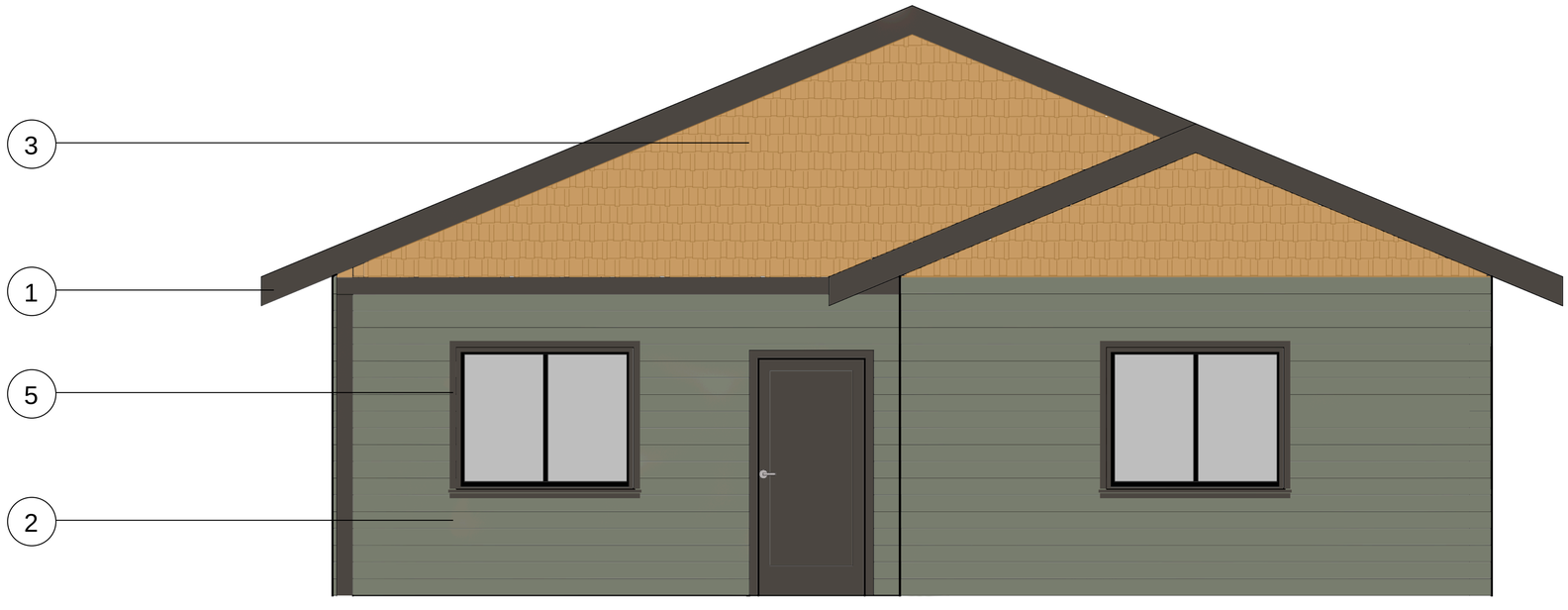
Scale: As indicated
Date: APRIL 2022
Drawn By: LM
Approved By: OWNERS
Sheet Number:

A - 0.0

5/17/2022 2:49:37 PM

Exhibit A

PROPOSED RESIDENCE
330 4TH STREET
CONCEPTUAL ELEVATIONS



WEST (FRONT) ELEVATION



NORTH ELEVATION

1 FASCIA - BLACK FOX (SW 7020)

2 HARDIE LAP SIDING
- DRIED THYME (SW 6186)

3 ALLURA FIBER CEMENT SHAKE - CEDAR

4 ASPHAULT SHINGLE ROOFING

5 FIBER CEMENT TRIM - BLACK FOX (SW 7020)

LAURA MILLER
DESIGN
architecture + interiors

Exhibit A

PROPOSED RESIDENCE
330 4TH STREET
CONCEPTUAL ELEVATIONS



EAST (REAR) ELEVATION



SOUTH ELEVATION

1 FASCIA - BLACK FOX (SW 7020)

2 HARDIE LAP SIDING
- DRIED THYME (SW 6186)

3 ALLURA FIBER CEMENT SHAKE - CEDAR

4 ASPHAULT SHINGLE ROOFING

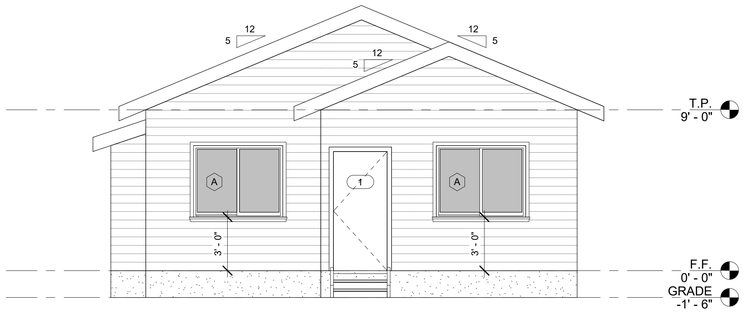
5 FIBER CEMENT TRIM - BLACK FOX (SW 7020)

LAURA MILLER
DESIGN
architecture + interiors

Exhibit A

LAP SIDING NOTES:

- FIBER-CEMENT LAP SIDING HAVING A MAXIMUM WIDTH OF 12 INCHES SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C1186, TYPE A, MINIMUM GRADE II OR ISO 8336, CATEGORY A, MINIMUM CLASS 2. LAP SIDING SHALL BE LAPPED A MINIMUM OF 11/4 INCHES (32 MM) AND LAP SIDING NOT HAVING TONGUE-AND-GROOVE END JOINTS SHALL HAVE THE ENDS PROTECTED WITH CAULKING, COVERED WITH AN H-SECTION JOINT COVER, LOCATED OVER A STRIP OF FLASHING, OR SHALL BE DESIGNED TO COMPLY WITH SECTION R703.1. LAP SIDING COURSES SHALL BE INSTALLED WITH THE FASTENER HEADS EXPOSED OR CONCEALED, IN ACCORDANCE WITH TABLE R703.3(1) OR APPROVED MANUFACTURER'S INSTRUCTIONS.

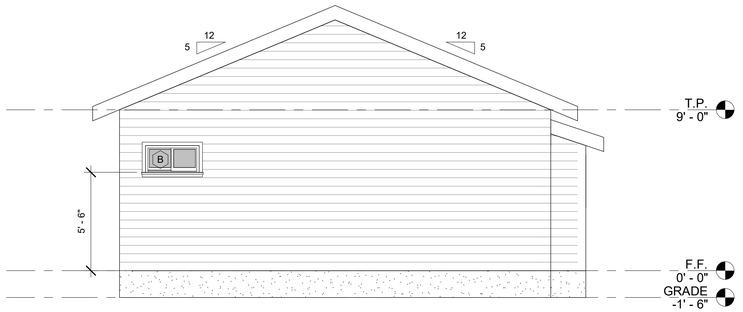


NOTE: GENERAL CONTRACTOR TO FIELD VERIFY ALL SLOPES AND OVERHANGS

1 SOUTH ELEVATION
1/4" = 1'-0"

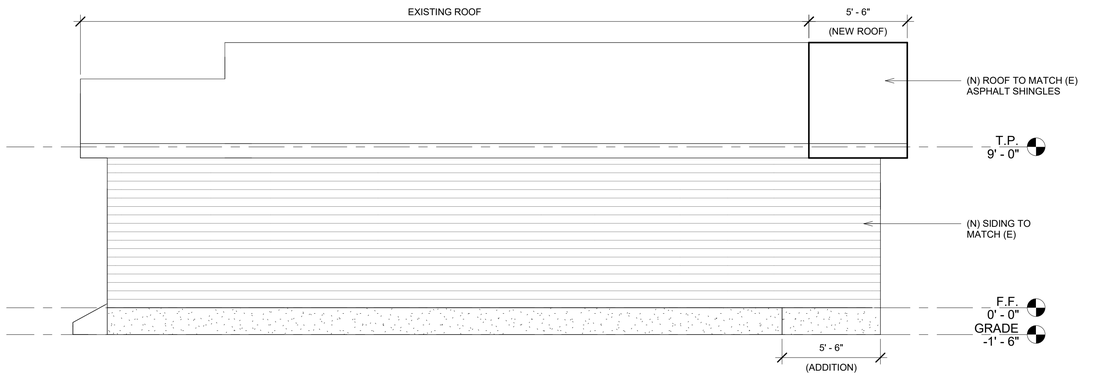
ADDRESS NOTES:

- APPROVED NUMBERS OR ADDRESSES SHALL BE PROVIDED FOR NEW BUILDINGS IN SUCH A POSITION AS TO BE CLEARLY VISIBLE AND LEGIBLE FROM THE STREET OR ROADWAY FRONTING THE PROPERTY. LETTERS OR NUMBERS SHALL BE A MINIMUM 4 INCHES IN HEIGHT AND STROKE OF MINIMUM 0.5 INCH OF A CONTRASTING COLOR TO THE BACKGROUND ITSELF. ADDRESSING SHALL BE ILLUMINATED AT NIGHT. REFERENCE CRC SEC. R319.1 AND THE CITY OF ROSEVILLE FIRE DEPARTMENT AMENDMENT 16.16.090.

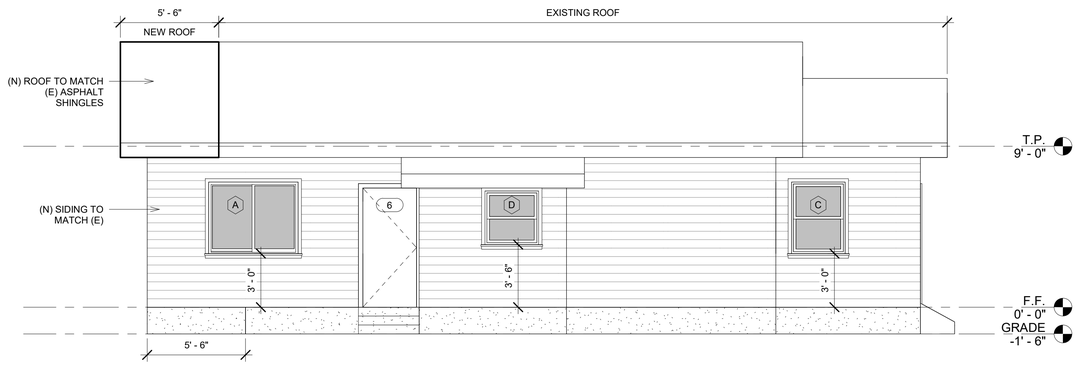


NOTE: GENERAL CONTRACTOR TO FIELD VERIFY ALL SLOPES AND OVERHANGS

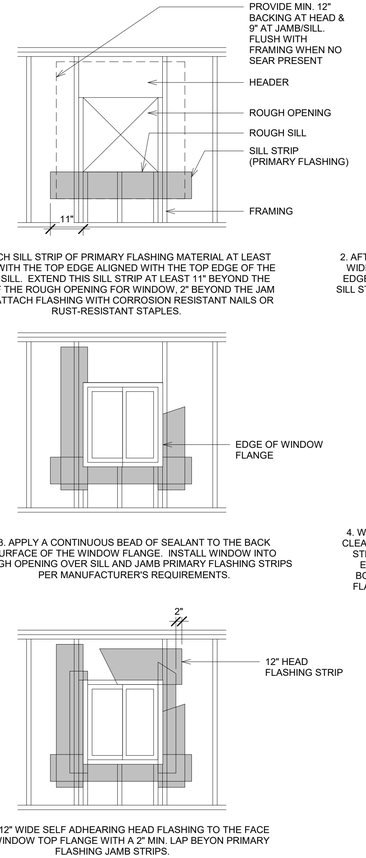
2 NORTH ELEVATION
1/4" = 1'-0"



3 EAST ELEVATION
1/4" = 1'-0"



4 WEST ELEVATION
1/4" = 1'-0"



1. ATTACH SILL STRIP OF PRIMARY FLASHING MATERIAL AT LEAST 9" WIDE WITH THE TOP EDGE ALIGNED WITH THE TOP EDGE OF THE ROUGH SILL. EXTEND THIS SILL STRIP AT LEAST 11" BEYOND THE EDGE OF THE ROUGH OPENING FOR WINDOW, 2" BEYOND THE JAM STRIP. ATTACH FLASHING WITH CORROSION RESISTANT NAILS OR RUST-RESISTANT STAPLES.

2. AFTER SILL STRIP IS IN PLACE, ATTACH JAMB STRIP AT LEAST 9" WIDE WITH INSIDE EDGE OF PRIMARY FLASHING ALIGNED WITH EDGE OF WINDOW OPENING. START JAMB STRIPS 2" BELOW THE SILL STRIP AND EXTEND JAMB STRIPS 12" ABOVE THE LOWER EDGE OF THE HEADER, TOP OF WINDOW OPENING.

3. APPLY A CONTINUOUS BEAD OF SEALANT TO THE BACK SURFACE OF THE WINDOW FLANGE. INSTALL WINDOW INTO ROUGH OPENING OVER SILL AND JAMB PRIMARY FLASHING STRIPS PER MANUFACTURER'S REQUIREMENTS.

4. WIPE THE WINDOW FLANGE AND PRIMARY FLASHING MATERIAL CLEAN BEFORE APPLYING SECONDARY FLASHING MATERIAL. CUT A STRIP OF SECONDARY FLASHING MATERIAL FOR THE WINDOW, EXTENDING BEYOND THE WINDOW FLANGE 3" MIN. TOP AND BOTTOM. PLACE SECONDARY FLASHING ON TOP OF WINDOW FLANGE AND SEAL BY APPLYING PRESSURE ALONG THE STRIP. REPEAT FOR OTHER JAMB.

5. APPLY 12" WIDE SELF ADHEARING HEAD FLASHING TO THE FACE OF THE WINDOW TOP FLANGE WITH A 2" MIN. LAP BEYON PRIMARY FLASHING JAMB STRIPS.

5 WINDOW FLASHING
1/2" = 1'-0"

LAURA MILLER DESIGN
architecture + interiors
Phone: 916.607.5321
Email: laura@lauramiller-design.com
Web: lauramiller-design.com
Mailing: PO Box 4576
El Dorado Hills, Ca 95762

LICENSED ARCHITECT
LAURA A. MILLER
No. C-35317
REN. 4/30/21
STATE OF CALIFORNIA

L Miller

REMODEL & ADDITION
330 4TH STREET
ROSEVILLE, CA 95678

No.	Date	Description

Sheet Name:
EXTERIOR ELEVATIONS

Scale:
As indicated

Date:
APR 2022

Drawn By:
LM

Approved By:
OWNERS

Sheet Number:
A - 3.0

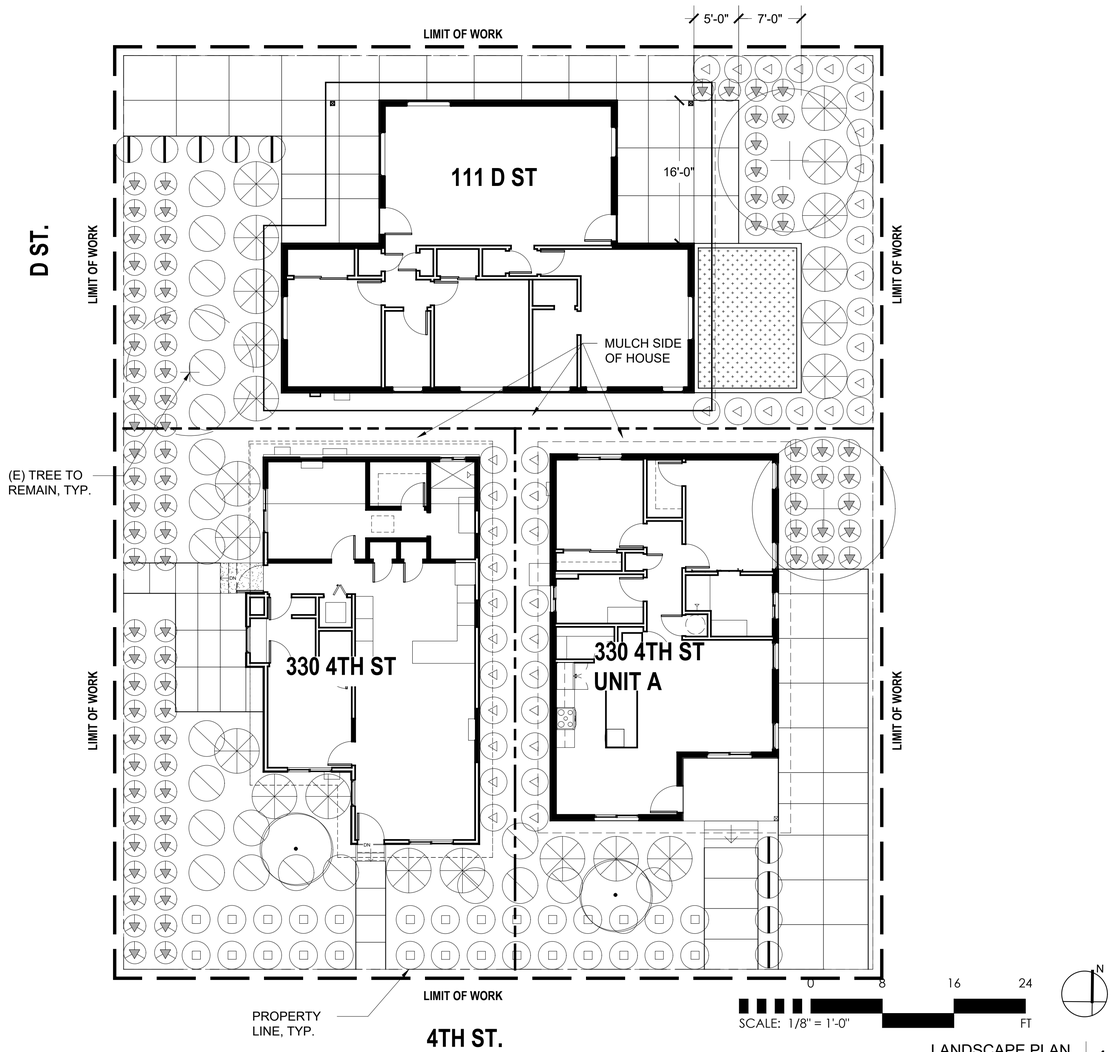
5/13/2022 11:18:38 AM

Exhibit A

PLANTING SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	UNITS	TOTAL QUANTITY	O.C. SPACING	WUCOLS REGION: 1	REMARKS
TREES								
·	CERCIS OCCIDENTALIS	WESTERN REDBUD	24" BOX	EA	5	AS SHOWN	L	MULTI
+	ZELCOVA SERRATA 'GREEN VASE'	GREEN VASE SAWLEAF ZELCOVA	24" BOX	EA	2	AS SHOWN	M	
SHRUBS AND GROUNDCOVERS								
	GALVEZIA SPECIOSA	ISLAND SNAPDRAGON	5 GAL.	EA	22	5'-0" O.C.	L	
|	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL.	EA	9	4'-0" O.C.	L	
▽	ILEX CRENATA 'SKY PENCIL'	SKY PENCIL JAPANESE HOLLY	5 GAL.	EA	42	4'-0" O.C.	M	
□	BULBINE FRUTESCENS 'HALLMARK ORANGE'	ORANGE STALKED BULBINE	5 GAL	EA	28	4'-0" O.C.	M	
	LOMONDRA LONGIFOLIA 'LITTLE LIME'	LITTLE LIME MAT RUSH	1 GAL.	EA	82	3'-6" O.C.	L	
	OLEA EUROPEA 'LITTLE OLLIE'	LITTLE OLLIE OLIVE	5 GAL.	EA	21	6'-0" O.C.	L	
SHRUBS AND GROUNDCOVERS								
	SYNTHETIC TURF	SYNTHETIC TURF	N/A	SF	170	N/A	N/A	
	MULCH		N/A	SF	3,600	MULCH 2" THICK MINIMUM - MEDIUM BARK (ALL PLANTING AREAS AND LOCATION(S) PER THE OWNER)		

PLANTING SCHEDULE 1



LANDSCAPE PLAN 4

1. ALL LANDSCAPE AREAS SHALL SHEET FLOW @ 2% MINIMUM OR DRAIN TO AREA DRAINS @ 1% MINIMUM.
2. FINAL TREE AND SHRUB PLACEMENT TO BE APPROVED BY OWNER/LANDSCAPE ARCHITECT PRIOR TO PLANTING.
3. ALL SHRUB PLANTING AREAS TO BE MULCHED WITH A TWO (2"-3") INCH LAYER OF MULCH.
4. ALL TREES THAT ARE CLOSER THAN FIVE FEET (5') TO HARDSCAPE ELEMENTS SHALL BE PLANTED WITH AN OWNER AND AGENCY APPROVED LINEAR ROOT BARRIER PER OWNER.
5. 'G' INDICATES TREES PLANTED WITH AN AGENCY APPROVED LINEAR ROOT BARRIER.
6. ALL PLANTS TO BE PLANTED IN TRIANGULAR SPACING.
7. ALL PLANTS TO BE PLANTED A MIN OF 3'-0" AWAY FROM UTILITIES (LOCATION PER PLAN).
8. EACH PLANT TO HAVE A PLANTING WELL OF 5"- 6" OFFSET FROM THE PLANT.
9. BEST-TABS 20-10-5 CONTROLLED RELEASE FERTILIZER PACKS TO BE USED.
   1 GAL. - 1 PACKET
   5 GAL. - 3 PACKETS
   15 GAL. - 9 PACKETS
   24 " - 15 PACKETS

PLANTING NOTES 2

1. ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
   TREES SHALL BE PROTECTED BY A 6' TALL CHAIN LINK FENCE MOUNTED ON STEEL POSTS, FIRMLY DRIVEN INTO GROUND OR STANCHIONS FASTENED SECURELY WITH REBAR STAPLES 12" DEEP.
   NATURAL AREAS SHALL BE PROTECTED BY A 6' TALL BRIGHT COLORED (USUALLY ORANGE), SYNTHETIC MESH MATERIAL FENCE OR CHAIN LINK FENCE.
2. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT AND REMOVED UPON COMPLETION OF CONSTRUCTION ACTIVITIES.
3. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.
4. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE). FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL), OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY ABORIST;
   C. WOUNDS TO TRUNK, LIMBS OR EXPOSED ROOTS BY MECHANICAL EQUIPMENT;
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
5. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIP LINES MAY BE PERMITTED IN THE FOLLOWING CASES:

A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 TO 4 FEET BEYOND THE AREA DISTURBED;
   B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN THE DRIP LINE OF A TREE, ERECT FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING) GRADE AREA SEPARATELY JUST PRIOR TO PAVING INSTALLATION TO MINIMIZE ROOT DAMAGE;
   C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING;
   D. WHERE SEVERE SPACE CONSTRAINTS EXIST DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE CITY ARBORIST OR LANDSCAPE ARCHITECT TO DISCUSS ALTERNATIVES.

SPECIAL NOTE: FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED.

6. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
7. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
8. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
9. UNDERGROUND FACILITES AND TRENCHES, (ELEC. UTILITIES SERVICE, SANITARY SEWER, STORM DRAINAGE LINES) SHALL BE CONSOLIDATED, TO THE EXTENT FEASIBLE, AND LOCATED TO MINIMIZE IMPACT UPON TREE ROOT SYSTEMS. ANY TRENCHING REQUIRED WITHIN THE TREE DRIPLINE SHALL BE AS FAR FROM THE TREE TRUNK AS POSSIBLE AND SHALL BE EXCAVATED BY HAND OR PNEUMATIC EXCAVATOR TO MINIMIZE IMPACT TO ROOTS.
10. ROOTS ¾" OR GREATER IN SIZE ENCOUNTERED DURING TRENCHING SHALL BE CLEANLY HAND PRUNED TO REDUCE LOSS OF MOISTURE TO THE TREE. ROOTS GREATER THAN 1-1/2" SHALL BE PRESERVED AND PROTECTED. CARE SHALL BE TAKEN TO MINIMIZE ABRASIONS TO ROOT BARK.
11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE DAMAGE MAY OCCUR (RIPPING OF BRANCHES, ETC.).
13. THE CODE ENFORCEMENT OFFICER, CITY ENGINEER OR CITY INSPECTOR HAS THE AUTHORITY TO REQUIRE ADDITIONAL TREE PROTECTION BEFORE OR DURING CONSTRUCTION.
14. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.
15. EXISTING TREES TO BE RETAINED AND PROTECTED AS INDICATED ON THE SITE PLAN.

TREE PROTECTION NOTES 3

MIQBEL DESIGNS

MIQBEL DEIGNS
SACRAMENTO, CA
614.598.8234

LANDSCAPE ENTITLEMENTS

111 D ST
ROSEVILLE, CA 95678

Rev. No.	Date	Description

Scale:

Date: MAY 11, 2022
Drawn By: SM
Approved By:

LANDSCAPE PLAN

L1.01

100% LANDSCAPE ENTAILMENTS

PLANNING COMMISSION COMMUNICATION

Title:	SVSP PCL JM-41 and JM-30 – General Plan Amendment, Specific Plan Amendment, Rezone, Development Agreement Amendment, and Tentative Subdivision Map, 4850 Upland Dr, File # PL21-0368
Contact:	Shelby Maples, smaples@roseville.ca.us, (916) 746-1347

Meeting Date: 6/23/2022
Item #: 6.1.

ATTACHMENTS:

Description

Staff Report

Attachment 1 JM-30 Conceptual Plan

Exhibit A Addendum to SVSP EIR

Exhibit B General Plan Amendment

Exhibit C Specific Plan Amendment

Exhibit D Rezone

Exhibit E SVSP Change Pages

Exhibit F Third Amendment to Mourier and Computer Deductions DA

Exhibit G Tentative Subdivision Map

Exhibit H Preliminary Utility Plan

CITY OF ROSEVILLE CALIFORNIA

Planning Division Staff Report
Planning Commission Meeting June 23, 2022

Prepared by: Shelby Maples, Associate Planner

ITEM 6.1: General Plan Amendment, Specific Plan Amendment, Rezone, Development Agreement Amendment, and Tentative Subdivision Map – 4850 Upland Dr. – SVSP PCL JM-41 and JM-30 – PL21-0368

REQUEST

The applicant requests approval of a General Plan Amendment, Specific Plan Amendment, and Rezone to adjust the boundary between Community Commercial (CC) Parcel JM-41 and High Density Residential (HDR) Parcel JM-30. The project will convert 0.44 acres from HDR to CC land use. The request also includes a Development Agreement Amendment to reflect the land use change and a Tentative Subdivision Map to subdivide Parcels JM-41 and JM-30 into 12 lots.

Applicant— David Cobbs, Baker Williams Engineering
Owner – Ryan Biziewski, Mourier Investments, LLC

SUMMARY RECOMMENDATION

The Planning Division recommends that the Planning Commission take the following actions:

1. Consider the Addendum to the Sierra Vista Specific Plan Environmental Impact Report;
2. Recommend that the City Council approve the General Plan Amendment;
3. Recommend that the City Council approve the Specific Plan Amendment;
4. Recommend that the City Council adopt the two (2) findings of fact and approve the Rezone;
5. Recommend that the City Council adopt the five (5) findings of fact and approve the third amendment to the Mourier and Computer Deductions Development Agreement; and
6. Adopt the three (3) findings of fact and approve the Tentative Subdivision Map subject to seventy-one (71) conditions of approval.

SUMMARY OF OUTSTANDING ISSUES

There are no outstanding issues associated with this request. The applicant has reviewed and is in agreement with the recommended conditions of approval.

BACKGROUND

The project site is within the Sierra Vista Specific Plan (SVSP) area. The SVSP was adopted on May 5, 2010 and includes 2,064 acres west of Fiddyment Road, north of Baseline Road. An Environmental Impact Report (EIR) was certified and a Mitigation Monitoring and Reporting Program was adopted with the SVSP. Additionally, the City entered into several Development Agreements with the property owners of the SVSP parcels to outline development obligations within the plan area.

The project site, Parcels JM-30 and JM-41, is located on approximately 21 acres at the southwest corner of the intersection of Pleasant Grove Bl. and Fiddyment Rd. in the SVSP. Large lot parcel JM-30 is approximately 7.51 acres, with a High Density Residential (HDR-23.5) land use designation and Multifamily Housing (R3) zoning designation. Parcel JM-41 is approximately 13.48 acres in size and has a land use and zoning designation of Community Commercial (CC).

The project request includes a General Plan Amendment, Specific Plan Amendment, and Rezone to adjust the boundary between HDR parcel JM-30 and CC parcel JM-41. This would convert 0.44 net acres from HDR land use to CC land use. The zoning designation would be modified to reflect the land use changes. The project also requests the third amendment of the Mourier and Computer Deductions Development Agreement (DA) to reflect the proposed changes. Finally, the project requests a Tentative

Subdivision Map to create 12 parcels, which would divide large lot parcel JM-41 into 11 commercial parcels and reconfigure parcel JM-30 to align with the proposed land use changes.

Figure 1 – Project Location



EVALUATION: GENERAL PLAN AMENDMENT, SPECIFIC PLAN AMENDMENT, AND REZONE

The proposed land use (General Plan and SVSP) and zoning designation amendments are shown in Exhibit B, C, and D. The proposed change pages to the SVSP are provided in Exhibit E.

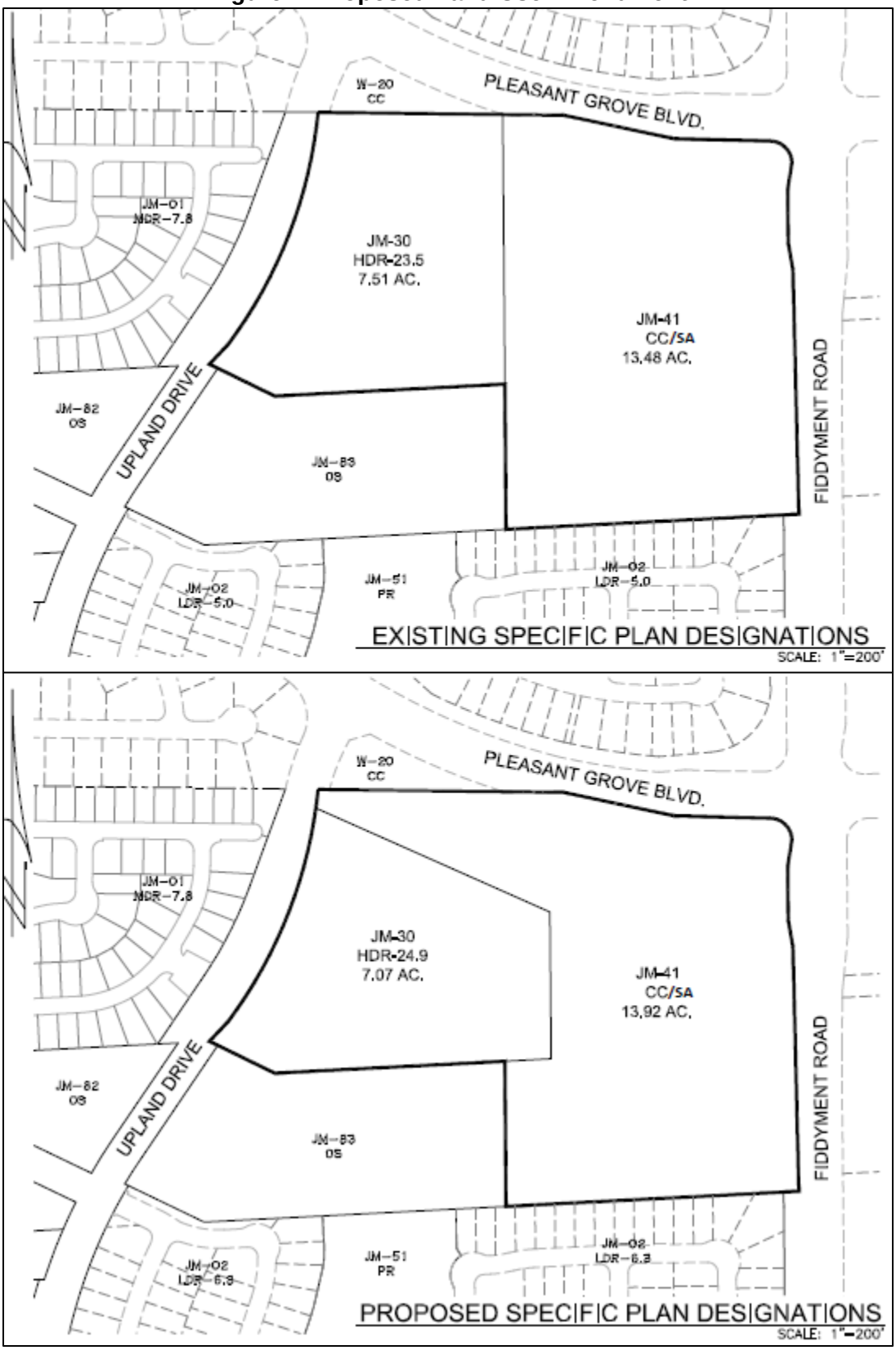
Proposed amendments to the General Plan and Specific Plan are analyzed for consistency with the goals and policies of the respective plans. The Zoning Ordinance Section 19.86.050 specifies that recommendations for approval or denial of a rezone shall include consideration of the proposed amendment's consistency with:

1. ***The public interest, health, safety, or welfare of the City, and***

2. ***The General Plan and any applicable Specific Plan.***

The project proposes the adjustment of parcels JM-30 and JM-41, resulting in a transfer of 0.44 acres from HDR land to CC land. The Rezone is requested to align with the proposed land use modification.

Figure 2: Proposed Land Use Amendment

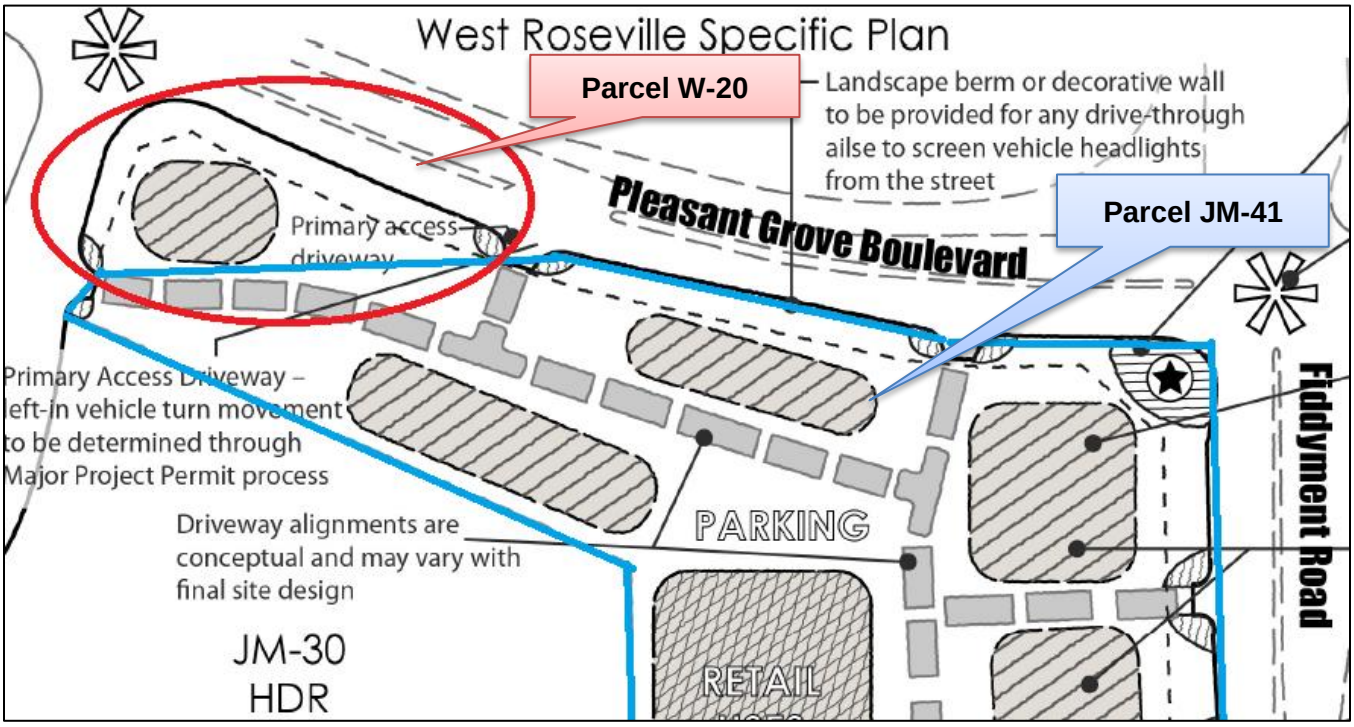


The project will reconfigure and reduce large lot parcel JM-30 from 7.51 acres to 7.07 acres. The number of units will remain the same at 176 units. Reducing the area of the parcel will increase the density of development from 23.4 dwelling units per acre (du/ac) to 24.9 du/ac. The density will remain similar to other High Density Residential parcels in the SVSP, which range from 20.0 du/ac to 30.0 du/ac. The proposed modification is consistent with the intent of the SVSP.

Parcel JM-41 has a CC/SA land use designation in the SVSP, and is one of two parcels in the Specific Plan identified for a combination of commercial and business professional uses. The SVSP anticipates that this site could develop with approximately 250,000 square feet of nonresidential uses with a Floor Area Ratio (FAR) of 0.4. The proposed modification will increase the area of the site to 13.92 acres from 13.48 acres, and at an FAR of 0.4 can accommodate approximately 243,000 square feet of development. The SVSP Design Guidelines include an illustrative concept plan for future development of parcel JM-41. The project proposes a revised Figure B-31 to accompany the land use amendment, showing a conceptual layout for the overall site. Based on the conceptual plan provided, future development of parcel JM-41 remains consistent with the intent of the Specific Plan. No development plans are proposed at this time.

It is also noted that the proposed land use adjustment will connect the commercial site with adjacent West Roseville Specific Plan (WRSP) parcel W-20. Parcel W-20 was modified from a Low Density Residential (LDR) parcel to a CC parcel as a part of the Coffee Shack project, approved by City Council in April of 2021 (File # PL20-0142). That approval allowed a future coffee kiosk with outdoor seating and a drive-through lane, and included a rezone with a Special Area overlay to ensure that only uses considered compatible with adjacent residential land uses would be permitted or conditionally permitted. As shown in the excerpt from the JM-41 conceptual plan (Figure 3), the land use boundary adjustment would allow parcels JM-41 and W-20 to function as one commercial center. Future development will be subject to be design review.

Figure 3 – Excerpt from JM-41 Conceptual Plan



The proposed land use amendment and rezone is consistent with the intent of the General Plan, SVSP, and the SVSP Design Guidelines, and will not be detrimental to the public interest, health, safety, or welfare of the City.

EVALUATION: DEVELOPMENT AGREEMENT AMENDMENT

Section 19.84.040 of the City of Roseville Zoning Ordinance specifies that recommendations for approval or denial of a Development Agreement (DA), including Amendments, shall include consideration of the following:

1. ***Consistency with the objectives, policies, general land uses and programs specified in the General Plan and the Amoruso Ranch Specific Plan;***

2. ***Consistency with the provisions of the City of Roseville Zoning Ordinance;***

3. ***Conformity with the public, health, safety, and general welfare;***

4. ***The effect on the orderly development of the property or the preservation of property values; and***

5. ***Whether the provisions of the Agreement shall provide sufficient benefit to the City to justify entering into the Agreement.***

Development Agreements (DA) are binding contracts that set the terms, rules, conditions, regulations, entitlements, obligations, and other provisions relating to the development of the covered properties. The SVSP is subject to ten development agreements, and the current project proposes the third amendment to the Mourier and Computer Deductions DA.

The requested DAA will be updated to reflect the change in land use acreages. No other changes are proposed. The Mourier and Computer Deductions DA was last updated in February of 2021 with the SVSP JM-40 Subdivision project (City File #PL20-0103), which included the transfer of five (5) units from Parcel JM-40 to JM-30, resulting in the present affordable housing allocation of 176 units (88 very low income and 88 low income rental units), as well as updates to the sections related to groundwater wells, water conservation goals, and recycled water facilities.

The proposed DAA to reflect the land use amendment is consistent with the General Plan, SVSP, and the Zoning Ordinance. The DAA is in conformance with the public health, safety, and welfare, and will not adversely affect the orderly development of the property or the preservation of property values. Therefore, the proposed DAA is consistent with findings 1-5 above.

EVALUATION: TENTATIVE SUBDIVISION MAP

Section 18.06.180 of the City of Roseville Subdivision Ordinance requires that three findings be made in order to approve or conditionally approve a Tentative Subdivision Map. The three findings are listed below in ***bold, italic text*** and are followed by an evaluation of the map in relation to each finding.

1. ***The size, design, character, grading, location, orientation, and configuration of lots, roads and all improvements for the tentative subdivision map are consistent with the density, uses, circulation and open space systems, applicable policies and standards of the General Plan and the Community Design Guidelines, and the design standards of Title 18 (Subdivision Ordinance) of the Roseville Municipal Code.***

2. ***The subdivision will result in lots which can be used or built upon. The subdivision will not create lots which are impractical for improvement or use due to: the steepness of terrain or location of watercourses in the area; the size or shape of the lots or inadequate building area; inadequate frontage or access; or, some other physical condition of the area.***

3. ***The design and density of the subdivision will not violate the existing requirements prescribed by the Regional Water Quality Control Board for the discharge of waste into the sewage system, pursuant to Division 7 of the Water Code.***

The proposed project includes a Tentative Subdivision Map to align with the proposed land use map for parcels JM-30 and JM-41, as well as divide JM-41 into 12 commercial parcels. As part of the review process, the applicant provided conceptual layouts for development on both JM-30 and JM-41 to ensure that future development of those sites is feasible in the proposed configuration (Attachment 1 for the JM-30 conceptual plan, and Exhibit E for the JM-41 conceptual plan).

Parcel 1 (JM-30) – While no development is proposed on parcel JM-30 at this time, a conceptual layout was provided with the current request to ensure that future development would be feasible on the modified parcel. The conceptual plan, which is included as Attachment 1 of this report, shows that there are layouts possible where all 176 units and required parking can be accommodated on the parcel. Per the SVSP and the Development Agreement, all 176 future units on parcel JM-30 are designated affordable, with 88 very low income and 88 low income rental units. Parcel JM-30 will be accessible from Upland Dr.

Parcels 2-12 (JM-41) – Parcels 2-12 on the Tentative Subdivision Map are part of commercial large lot JM-41. The tentative map will create parcels ranging in size from approximately 0.49 acres to 3.27 acres, as shown in Table 1 below. A 25-foot easement is proposed on the map to provide access to interior Parcels 2, 4, 5, 10, and 11. Future development of the commercial parcels will also be subject to additional design review.

Table 1 – Tentative Map Proposed Parcels

Parcel #	Land Use/Zoning Designation	Size (Acres)
Parcel 1	HDR/R3	7.07 ac
Parcel 2	CC/CC	1.12 ac
Parcel 3	CC/CC	0.49 ac
Parcel 4	CC/CC	0.55 ac
Parcel 5	CC/CC	1.09 ac
Parcel 6	CC/CC	0.48 ac
Parcel 7	CC/CC	1.52 ac
Parcel 8	CC/CC	0.88 ac
Parcel 9	CC/CC	1.43 ac

Parcel 10	CC/CC	3.27 ac
Parcel 11	CC/CC	0.80 ac
Parcel 12	CC/CC	2.30 ac
Total		20.99 ac

It is also noted that the southern portion of the project site, which includes a portion of Parcel 1, a portion of Parcel 10, and the entirety of Parcels 9, 11, and 12 are encumbered by electrical easements for overhead power lines, including a 125-foot SMUD easement, 250-foot PGE tower easement, and 35-foot additional electric easement. The conceptual plan for the site indicates that this area will be reserved for uses which are compatible with the overhead power lines, including screened storage and a parking area for the future apartments on Parcel 1.

The proposed parcels are of sufficient size and shape to accommodate development that is consistent with the applicable zoning and design requirements. The reconfiguration of the parcels will result in lots which can be used and built upon, and which are practical for improvement based on the existing topography. Additionally, the proposed parcel configurations do not change the location of watercourses or create a physical condition that would be impractical for the proposed improvements.

As part of the adoption for the SVSP, an assessment of wastewater demands was completed for the entire plan area. The proposed subdivision map is consistent with the total number of units anticipated within the Specific Plan, and therefore will not increase planned demand on sewage services. There will be no impacts to the existing requirements established by the Regional Water Quality Control Board.

PUBLIC OUTREACH

The proposed project was distributed to the various agencies and departments which have requested notice of City applications, and all comments were considered and incorporated into the Conditions of Approval, as appropriate. Notice of the application was also distributed to the Roseville Coalition of Neighborhood Associations (RCONA). No comments were received. A public notice of the Planning Commission hearing was published on June 10, 2022, and was distributed to all property owners within 300 feet of the project site and to the RCONA webpage. To date, no comments have been received.

CONCLUSION

As demonstrated by the analyses in the foregoing sections, the proposed project is consistent with the policies and intent of the General Plan and the SVSP. The project as proposed will not be detrimental to public health or safety, nor will it be detrimental to the public welfare. The findings for all requested entitlements can be made.

ENVIRONMENTAL DETERMINATION

Consistent with CEQA Guidelines Section 15164, regarding previously certified and adopted Environmental Impact Reports (EIR), an Addendum to the Sierra Vista Specific Plan EIR (SCH #2008032115, certified May 5, 2010) has been prepared to cover the minor technical changes and additions necessary to describe the impacts of the proposed project. The SVSP EIR Addendum is provided as Exhibit A. The proposed project does not change the area of disturbance beyond what was previously evaluated in the SVSP EIR, and no

new or substantially more severe impacts will occur with the development of the proposed project; therefore, no additional analysis is required.

RECOMMENDATION

The Planning Division recommends the Planning Commission take the following actions:

1. Consider the Addendum to the Sierra Vista Specific Plan Environmental Impact Report;
2. Recommend that the City Council approve the General Plan Amendment;
3. Recommend that the City Council approve the Specific Plan Amendment;
4. Recommend that the City Council adopt the two (2) findings of fact and approve the Rezone;
5. Recommend that the City Council adopt the five (5) findings of fact and approve the third amendment to the Mourier and Computer Deductions Development Agreement, and
6. Adopt the findings of fact as stated in the staff report and approve the **Tentative Subdivision Map – 4850 Upland Dr. –SVSP JM-41 and JM-30 – PL21-0368** subject to seventy-one (71) conditions of approval.

CONDITIONS OF APPROVAL FOR TENTATIVE SUBDIVISION MAP FILE # PL21-0368

1. The project is approved as shown in Exhibits G and H and as conditioned or modified below. (Planning)

3. The Tentative Subdivision Map shall be valid for a period of two (2) years from **June 23, 2022** and shall expire on **June 23, 2024**. Prior to said expiration date, the applicant may apply for an extension of time, provided that the approval shall be extended for no more than six (6) years from **June 23, 2022**.

4. The approval of a Tentative Map and/or tentative site plan does not constitute approval of proposed improvements as to size, design, materials, or location, unless specifically addressed in these conditions of approval. (Engineering)

5. The design and construction of all improvements shall conform to the Improvement Standards and Construction Standards of the City of Roseville, or as modified by these conditions of approval, or as directed by the City Engineer. (Engineering)

6. The developer shall not commence with any on-site improvements until such time as grading and/or improvement plans are approved and grading and/or encroachment permits are issued by the Department of Public Works. (Engineering)

7. The applicant shall pay City's actual costs for providing plan check, mapping, GIS, and inspection services. This may be a combination of staff costs and direct billing for contract professional services. (Engineering, Environmental Utilities, Finance)

8. The project shall comply with all required environmental mitigation identified in Sierra Vista Specific Plan Environmental Impact Report, and shall include all applicable mitigation measures as notes on the plans. (Planning)

PRIOR TO ISSUANCE OF A GRADING PERMIT AND/OR IMPROVEMENT PLANS

9. The applicant shall submit to the Planning and Engineering Departments the applicable Army Corps of Engineers permit or clearance, the California Department of Fish and Game Stream Bed Alteration Agreement, and/or the Regional Water Quality Control Board Water Quality Certificate. (Planning)

10. The grading and improvement plans shall be designed in accordance with the City's Improvement Standards and Construction Standards and shall reflect the following:

    a) Street improvements including, but not limited to, curb, gutter, sidewalk, pavement, drainage systems, traffic striping, signing, medians and markings, etc. along all existing and proposed City streets, as required by Engineering.

    b) Grading shall comply with the City grading ordinance. There shall be no cut and/or fill slopes steeper than a 4:1 ratio. Erosion control devices (sediment traps, ditches, straw bales, etc.) shall be shown on the grading plans and all erosion control shall be installed prior to the onset of wet weather. Erosion control is installed to minimize silt discharge from the project site; it is the applicant's responsibility to ensure that necessary measures are taken to minimize silt discharge from the site. Modification of the erosion control plan may be warranted during wet weather conditions.

    c) A rough grading permit may be approved by the Engineering Department prior to approval of the improvement plans.

    d) Access to the floodplain shall be provided as required by Engineering and the Streets Department.

    e) Standard accessible ramps shall be installed at all curb returns per City Standards. (Engineering)

11. For all work to be performed off-site, permission to enter and construct shall be obtained from the property owner, in the form of a notarized right-of-entry. Said notarized right-of-entry shall be provided to Engineering prior to approval of any plans. (Engineering)

12. The applicant shall apply for and obtain an encroachment permit from the Engineering Department prior to any work conducted within the City right-of-way and/or City easements. (Engineering)

13. The applicant shall remove and reconstruct any existing damaged curb, gutter, and sidewalk along the property frontage. During site inspection Engineering will designate the exact areas to be reconstructed. (Engineering)

14. All drainage facilities shall conform to natural drainage sheds. (Engineering)

15. The following note shall be added to the Grading and/or Improvement Plans:

To minimize dust/grading impacts during construction the applicant shall:

    a) Spray water on all exposed earth surfaces during clearing, grading, earth moving and other site preparation activities throughout the day.

    b) Use tarpaulins or other affective covers on all stockpiled earth material and on all haul trucks.

    c) Sweep the adjacent streets frontages at least once a day or as needed to remove silt and other dirt which is evident from construction activities.

    d) Ensure that construction vehicles are cleaned prior to leaving the construction site to prevent dust and dirt from being tracked off site.

e) *The City shall have the authority to stop all grading operations if, in the opinion of city staff, inadequate dust control measures are being practiced or excessive wind conditions contribute to fugitive dust emissions. (Engineering)*

16. A note shall be added to the grading plans that states: *"Prior to the commencement of grading operations, the contractor shall identify the site where the **excess/borrow** earthen material shall be imported/deposited. If the **borrow/deposit** site is within the City of Roseville, the contractor shall produce a report issued by a geotechnical engineer to verify that the exported materials are suitable for the intended fill, and shall show proof of all approved grading plans. Haul routes to be used shall be specified."* (Engineering)

17. The developer shall be responsible for the installation of a bus shelter and related improvements conforming to the City's current standards for the shelter pad located along southbound Fiddyment Road, south of Pleasant Grove Boulevard. Upon installation and final inspection by the City of Roseville, the bus shelter and related improvements shall become property of the City of Roseville. The Developer and City may enter into a construction fee agreement or other agreement based upon a construction cost of $10,000 per shelter for future construction of the Bus Shelter along southbound Fiddyment Road, south of Pleasant Grove Boulevard (shelter number #333). (Engineering, Alternative Transportation).

18. The applicant shall dedicate all necessary rights-of-way for the widening of any streets required with this entitlement. A separate document shall be drafted for approval and acceptance by the City of Roseville, and recorded at the County Recorder's Office. (Engineering)

19. The applicant shall dedicate a separate drainage easement to the City of Roseville for the storm drain facility required to transfer public storm waters through the site. The easement document shall be drafted for approval and acceptance by the City of Roseville, and recorded at the County Recorder's Office. (Engineering)

20. The grading plans for the site shall be accompanied with a shed map that defines that area tributary to this site. All drainage facilities shall be designed to accommodate the tributary flow. All on-site storm drainage shall be collected on-site and shall be routed to the nearest existing storm drain stub of the natural drainage course. (Engineering)

21. All storm drainage, including roof drains, shall be collected on site and shall be routed to the nearest storm drain system or natural drainage facility. Prior to discharge from the site, the storm water shall be treated with appropriate storm water pollution treatment device(s). Any drainage outfalls shall extend down to the receiving water and shall be constructed with adequate velocity attenuation devices. (Engineering)

22. The grading plans shall be accompanied with engineered structural calculations for all retaining walls greater than four (4) feet in height. All retaining walls shall be of either split-faced masonry units, keystone type construction, or cast in place concrete with fascia treatment. (Engineering)

23. The developer shall be responsible for any necessary relocation of signal interconnect cables that may require re-location as a result of the construction of turn lanes and/or driveways. (Engineering)

24. Prior to the submittal of design drawings for frontage improvements, to ensure the design for any necessary widening, construction, or modifications of Public Streets does not conflict with existing dry utilities generally located behind the curb and gutter, the project proponent shall have the existing dry utilities pot holed for verification of location and depth. (Engineering)

25. Sight distances for all driveways shall be clearly shown on the improvement plans to verify that minimum standards are achieved. It will be the responsibility of the project proponent to provide appropriate landscaping and improvement plans, and to relocate and/or modify existing facilities as needed to meet these design objectives. (Engineering)

26. Prior to construction within any phase of the project, high visibility temporary construction fencing shall be installed along the parcel adjacent to the Preserve. Fencing shall be maintained daily until permanent fencing is installed, at which time the temporary fencing shall be removed from the project site, along with all temporary erosion control measures (e.g., straw bales, straw waddles and stakes, silt fencing). (Engineering, Development Services, Planning)

27. Improvement plans shall show the Preserve boundary and label it as a protected area. The Pre-Construction meeting shall address the presence of the Preserve, the sensitive habitats present and minimization of disturbance to the Preserve. During grading and construction the preserve area shall be avoided and shall not be used for parking, storage, or project staging. The contractor shall remove all trash blown into the preserve from adjacent construction on a daily basis. (Engineering, Development Services, Planning)

28. With the exception of access required for maintenance and/or emergency vehicles, the project shall be designed to prevent vehicle access into the Preserve. Post and cable fencing or other improvements shall be utilized to meet this requirement. (Engineering, Development Services, Planning)

29. Landscaping adjacent to the Preserve shall be California native, drought-tolerant groundcover, shrubs, plants, and trees. (Development Services, Planning)

30. Prior to the approval of the improvement plans, it will be the project proponent's responsibility to pay the standard City Trench Cut Recovery Fee for any cuts within the City streets that are required for the installation of underground utilities. (Engineering)

31. Prior to the approval of the Improvement Plans, the project proponent shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to the City, as defined by the Regional Water Quality Control Board. The SWPPP shall be submitted in a single three ring binder. Upon approval, the SWPPP will be returned to the project proponent during the pre-construction meeting. (Engineering)

PRIOR TO ISSUANCE OF GRADING PERMIT OR IMPROVEMENT PLANS

32. Prior to the approval of Improvement Plans, the applicant shall submit to the Engineering Division of Public Works a paper copy and an electronic copy of the final set of Improvement Plans per the Division's "Digital Submission of Utility Composites" standards. Additionally, the applicant shall submit approved/proposed street names for the approved subdivision map. Final street names for the subdivision shall be approved by the Engineering Division prior to the approval of the Improvement Plans. The approved street names shall be included on the final set of Improvement Plans. (Engineering)

33. Water and sewer infrastructure shall be designed and constructed pursuant to the adopted City of Roseville Improvement Standards and Construction Standards and shall reflect the following:

    a) Sewer and water service laterals shall not be allowed off of water and sewer mains larger than 12 inches in diameter.

b) Utilities or permanent structures shall not be located within the area which would be disturbed by an open trench needed to expose sewer trunk mains deeper than 12 feet unless approved by Environmental Utilities in these conditions. The area needed to construct the trench is a sloped cone above the sewer main. The cone shall have 1:1 side slopes.

c) Water and sewer mains shall not exceed a depth of 12 feet below finished grade, unless authorized in these conditions

d) All sewer manholes shall have all-weather, 10-ton vehicular access unless authorized by these conditions. (Environmental Utilities)

34. Recycled water infrastructure shall be designed pursuant to the adopted City of Roseville Improvement Standards and the City of Roseville Construction Standards. The applicant shall pay all applicable recycled water fees. Easements shall be provided as necessary for recycled water infrastructure. (Environmental Utilities

35. Fire hydrants shall be located as required by the Fire Department. The maximum distance between fire hydrants shall not exceed 1,000 feet on center. (Fire)

36. Minimum fire flow is 1,500 gallons per minute with 20 pounds per square inch residual pressure. A change in any of the conditions may increase the required fire flow. (Fire)

37. There shall be two points of access for all phasing plans. (Fire)

38. Framing construction cannot commerce until access roads and public fire hydrants are approved by the Fire Department. (Fire)

39. If this project will be phased, the fire department requirements for access and circulation throughout shall be reviewed and approved by the Fire Department. Access roads shall comply with the California Fire Code and the City of Roseville's Amendments. (Fire)

40. Any facilities proposed for placement within public/electric utility easements shall be subject to review and approval by the Electric Department before any work commences in these areas. This includes, but is not limited to, landscaping, lighting, paving, signs, trees, walls, and structures of any type. (Electric)

41. The design for electrical service for this project will begin when the Electric Department has received a full set of improvement plans for the project. (Electric)

42. All landscaping in areas containing electrical service equipment shall conform to the "Electric Department Landscape Design Requirements" as outlined in Section 10.00 of the Electric Department's "Specifications for Commercial Construction." (Electric)

43. The Electric Department requires the submittal of the following information in order to complete the final electric design for the project:

a) one (1) set of improvement plans

b) load calculations

c) electrical panel one-line drawings

44. The location and design of the gas service shall be determined by PG&E. The design of gas service for this project shall not begin until PG&E has received a full set of City approved improvement plans for the project. (PG&E)

45. It is the developer's responsibility to notify PG&E of any work required on PG&E facilities. (PG&E)

PRIOR TO OR UPON RECORDATION OF FINAL MAP

46. The following easements shall be provided and shown on the Final/Parcel Map or by separate instrument, unless otherwise provided for in these conditions:

    a) Water, sewer, and reclaimed water easements;

    Easement widths shall comply with the City's Improvement Standards and Construction Standards. The easement documents shall be drafted for approval and acceptance by the City of Roseville and recorded at the Placer County Recorder's Office. (Alternative Transportation, Environmental Utilities, Electric, Engineering)

47. All existing easements shall be maintained, unless otherwise provided for in these conditions. (Environmental Utilities, Electric, Engineering)

48. Separate document easements required by the City shall be prepared in accordance with the City's "Policy for Dedication of Easements to the City of Roseville." All legal descriptions shall be prepared by a licensed Land Surveyor (Environmental Utilities, Electric, Engineering)

49. A declaration of Conditions, Covenants and Restrictions (CC&Rs), in a form approved by the City Attorney, shall be recorded on the entire property concurrently with the Final/Parcel Map. The CC&Rs shall include the following item(s):

    a) A clause stating that the property owners within this subdivision shall agree to participate in a Transportation Systems Management (TSM) Plan and shall agree to enter into a Transportation Management Agreement with the City of Roseville.

    b) A clause prohibiting the amendment, revision or deletion of any sections in the CC&Rs required by these conditions of approval without the prior written consent of the City Attorney.

    c) A clause excluding any property owned by the City from the terms of the CC&Rs. (Attorney)

50. The developer shall pay the WRSP Transit Shuttle Service Fee for Parcel W-20 per Section 3.15.13 of the WRSP Development Agreement. (Alternative Transportation).

51. Per Section 3.5.12 of the SVSP (Mourier Investment & Computer) Development Agreement, the developer shall pay, as its fair share on a city-wide basis, for the update of the City's Long Range Transit Master Plan, Short Range Master Plan Update, and Bikeway Master Plan Update, the amounts of $496.29, $595.55 and $496.29 prior to recordation of the Large Lot Tentative Map. (Alternative Transportation).

52. The City shall not approve the Final Map for recordation until either:

    a) A subdivision agreement is entered into along with the necessary bonds and insurance as required by the City. Said agreement shall be in a form acceptable to the City Attorney.

OR

b) The improvement plans are approved, and the improvements are constructed and accepted as complete. In this case, the subdivider shall enter into a one-year maintenance agreement concurrent with the recordation of the Final Map. (Engineering)

53. Street names shall be approved by the City of Roseville. (Engineering)

54. In the event that the Final (Parcel) Map will record prior to the completion of on-site construction, all utility and access easements shall be placed on the face of the Map to the satisfaction of the City Engineer. If all on-site improvements are complete prior to the recordation of the map, then a separate agreement allowing all parcels/lots the rights of reciprocal access, rights to construct, and parking shall be submitted to the City as a part of final/parcel map submittal. Said agreement shall be in a form acceptable to the City Attorney and referenced on the face of the recorded map. (Engineering)

55. City records show that the land being subdivided is within the Sierra Vista CFD 2, Public Services and Municipal Services CFD 3 districts as well as within the future annexation area of the Villages at Sierra Vista CFD No. 1. The parcel will need to be annexed into The Villages at Sierra Vista CFD No. 1.

56. The Final/Parcel Map shall include an irrevocable offer to dedicate public rights-of-way and public and/or private easements as required by the City. (Engineering)

57. The words "traffic control appurtenances" shall be included in the list of utilities allowed in public utilities easements (PUEs) located along public roadways. (Engineering)

58. The Final/Parcel Map shall be submitted per “The Digital Submittal of Cadastral Surveys.” A plot or print of the submittal shall accompany the electronic copy. The complete submittal shall occur after the Engineering Department approval but prior to City Council approval of the Final/Parcel Map. (Engineering)

59. The cost of any facilities, which are identified in the Capital Improvement Program and are beyond those needed for this project, may be reimbursed to the developer. In accordance with §66485 and §66486 of the Subdivision Map Act, for any improvements constructed by the subdivider which contain supplemental size, capacity, number, or length for the benefit of property not within the subdivision and which are to be dedicated to the public, the subdivider shall be entitled to reimbursement for that portion of the cost of the improvements which is in excess of the construction required for the subdivision. (Engineering)

60. Electric construction costs incurred by the City of Roseville Electric Department for this project shall be paid for by the developer per the applicable policy. (Electric)

61. Additional internal easements will be required to cover primary electrical facilities to the project when the final electrical design is completed. (Electric)

62. All Electric Department facilities, including streetlights where applicable, shall be designed and built to the “City of Roseville Specifications for Commercial Construction.” (Electric)

63. The City of Roseville Electric Department has electrical construction charges which are to be paid by the developer and which are explained in the City of Roseville “Specification for Commercial Construction.” These charges will be determined upon completion of the final electrical design. (Electric)

64. The Environmental Utilities Department shall make a determination that there is adequate conveyance and treatment capacity in the City sewer system to handle the newly created Lot/Parcels. (Environmental Utilities)

65. The applicant shall pay all applicable water and sewer fees. (Environmental Utilities)

OTHER CONDITIONS OF APPROVAL

66. Any relocation, rearrangement, or change to existing electric facilities due to this development shall be at the developer's expense. (Electric)

67. It is the responsibility of the developer to ensure all existing electric facilities remain free and clear of any obstructions during construction and when the project is complete. (Electric)

68. Existing public facilities damaged during the course of construction shall be repaired by the applicant, at the applicant's expense, to the satisfaction of the City. (Engineering)

69. The project is subject to the noise standards established in the City's Noise Ordinance. In accordance with the City's Noise Ordinance, provided all construction equipment is fitted with factory installed muffling devices and is maintained in good working order, project construction noise is exempt between the hours of seven a.m. and seven p.m. Monday through Friday, and between the hours of eight a.m. and eight p.m. Saturday and Sunday. (Engineering)

70. If site survey or earthmoving work results in the discovery of hazardous materials in containers or what appears to be hazardous wastes released into the ground, the contractor shall notify the Roseville Fire Department immediately. A representative from the Fire Department will make a determination as to whether the incident is reportable or not and if site remediation is required. Non-emergency releases or notifications about the presence of containers found shall be reported to the Fire Department. (Fire)

71. The Tentative Subdivision Map shall not be deemed approved until the actions on the Rezoning, Development Agreement and Specific Plan Amendment are approved and become effective. (Planning)

Attachments

1. JM-30 Conceptual Plan

Exhibits

A. Addendum to the Sierra Vista Specific Plan Environmental Impact Report
B. General Plan Amendment
C. Specific Plan Amendment
D. Rezone
E. SVSP Change Pages
F. Third Amendment to Mourier and Computer Deductions Development Agreement
G. Tentative Subdivision Map
H. Preliminary Utility Plan

Note to Applicant and/or Developer: Please contact the Planning Division staff at (916) 774-5276 prior to the Commission meeting if you have any questions on any of the recommended conditions for your project. If you challenge the decision of the Commission in court, you may be limited to raising only those issues which you or someone else raised at the public hearing held for this project, or in written correspondence delivered to the Planning Manager at, or prior to, the public hearing.

PC ATTACHMENT 1

Preliminary Site Statistics

BLDG.	STORIES	1BR	2BR	TOTAL
A1	3	24	36	60
A2	3	24	36	60
B	2	16	24	40
C	2	8	-	8
D	2	-	8	8
TOTAL		72	104	176
		41%	59%	100%

COMMUNITY BLDG. 3400 s.f.+/-
Parking Required 176 + 1/10 units = 194
Parking Provided 198



JMC-30 SITE STUDY for IONIC ENTERPRISES

CONCEPTUAL

1" = 30'

SAUSALITO
ART & ARCHITECTURE
Robert P. South, Architect

12/17/2021

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT–PLANNING DIVISION

311 Vernon St, Roseville, CA 95678 (916) 774-5276

9th ADDENDUM TO THE SIERRA VISTA SPECIFIC PLAN ENVIRONMENTAL IMPACT REPORT (SCH #2008032115, ADOPTED ON MAY 5, 2010)

Project Title/File Number:	SVSP JMC Parcels JM-30 and JM-41; File #PL21-0368
Project Location:	4850 Upland Dr., Roseville, Placer County, CA 95747; The project includes two large lot parcels within the Sierra Vista Specific Plan, which are located south of Pleasant Grove Bl., east of Upland Dr., and west of Fiddyment Rd.
Project Description:	The project request includes a General Plan Amendment, Specific Plan Amendment, and Rezone to adjust the boundary between Community Commercial (CC) Parcel JM-41 and High Density Residential (HDR) Parcel JM-30. The project will convert 0.44 acres from HDR to CC land use. The request also includes a Development Agreement Amendment to reflect the land use change and a Tentative Subdivision Map to subdivide Parcels JM-41 and JM-30 into 12 lots.
Project Applicant:	David Cobbs, Baker Williams Engineering Group
Property Owner:	Mourier Investments LLC
Lead Agency Contact:	Shelby Maples, Associate Planner; Phone (916) 746-1347

An Addendum to a previously certified and adopted negative declaration or environmental impact report may be prepared for a project if only minor technical changes or additions are necessary or none of the conditions calling for the preparation of a subsequent EIR or negative declaration have occurred (California Environmental Quality Act Guidelines [CEQA] Section 15164). Consistent with CEQA Guidelines Section 15164, the below analysis has been prepared in order to demonstrate that none of the conditions described in Section 15162 of the CEQA Guidelines calling for preparation of a subsequent EIR have occurred and that only minor technical changes or additions are necessary in order to deem the adopted negative declaration adequate to describe the impacts of the proposed project. CEQA Guidelines Section 15164 also states that an addendum need not be circulated for public review, but can be included in or attached to the adopted negative declaration for consideration by the hearing body. This Addendum focuses only on those aspects of the project or its impacts which require additional discussion.

Table of Contents

Project Description **3**

Purpose and Scope of Addendum **5**

Initial Study Checklist

I.	Aesthetics	**9**
II.	Agricultural & Forestry Resources	**11**
III.	Air Quality	**13**
IV.	Biological Resources	**14**
V.	Cultural Resources	**16**
VI.	Energy	**17**
VII.	Geology and Soils	**17**
VIII.	Greenhouse Gases	**21**
IX.	Hazards and Hazardous Materials	**22**
X.	Hydrology and Water Quality	**24**
XI.	Land Use and Planning	**26**
XII.	Mineral Resources	**28**
XIII.	Noise	**29**
XIV.	Population and Housing	**31**
XV.	Public Services	**32**
XVI.	Recreation	**34**
XVII.	Transportation	**35**
XVIII.	Tribal Cultural Resources	**37**
XIX.	Utilities and Service Systems	**39**
XX.	Wildfire	**41**
XXI.	Mandatory Findings of Significance	**43**

Environmental Determination **44**

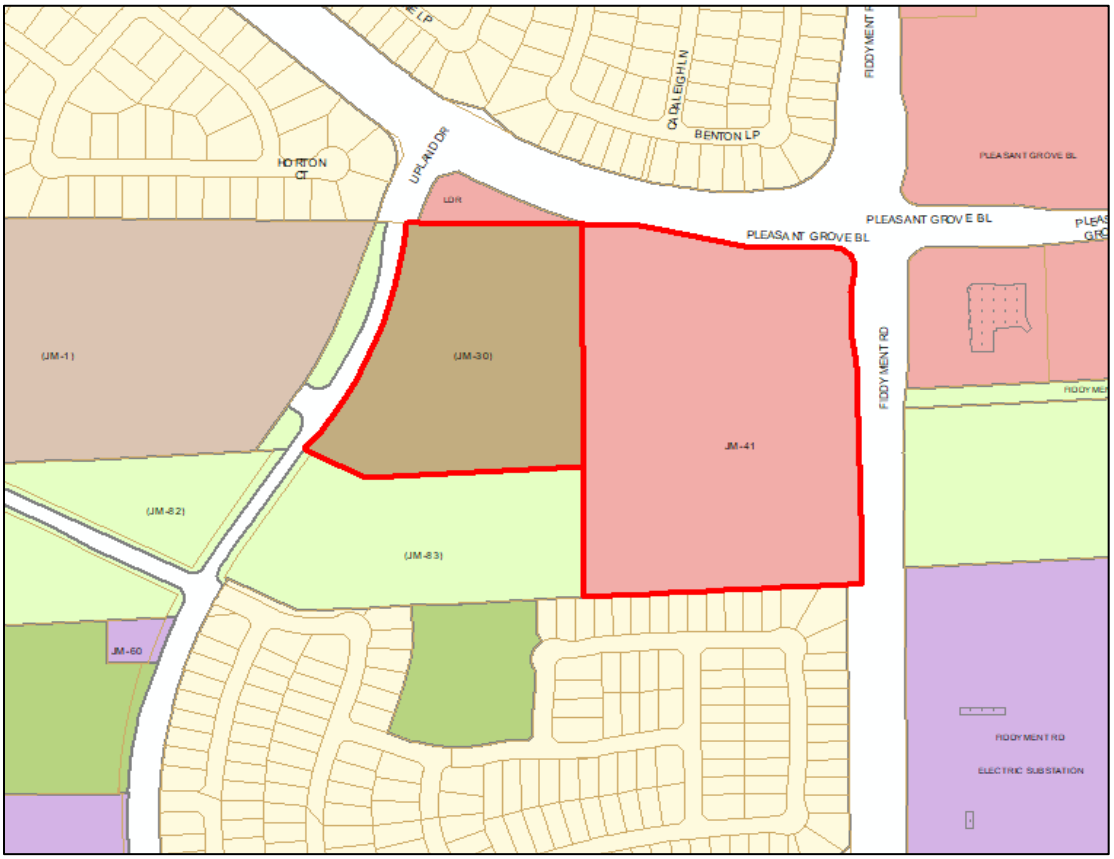
Attachments **44**

PROJECT DESCRIPTION

Project Location

The project address is 4850 Upland Dr. The project includes two large lot parcels within the Sierra Vista Specific Plan, which are located south of Pleasant Grove Bl., east of Upland Dr., and west of Fiddyment Rd. (see Figure 1).

Figure 1: Project Location (parcels bordered in red)



Background

The SVSP was approved on May 5, 2010 (file #2007PL-044). An Environmental Impact Report (EIR) was certified and a Mitigation Monitoring Program was adopted with the SVSP. The plan area includes 2,064 acres west of Fiddyment Road, north of Baseline Road. The SVSP at a program level anticipated development of the plan area with a mix of residential, commercial, parks and open space land uses. Additionally, Development

Agreements with the property owners of the SVSP parcels and the City were entered into to outline development obligations within the SVSP.

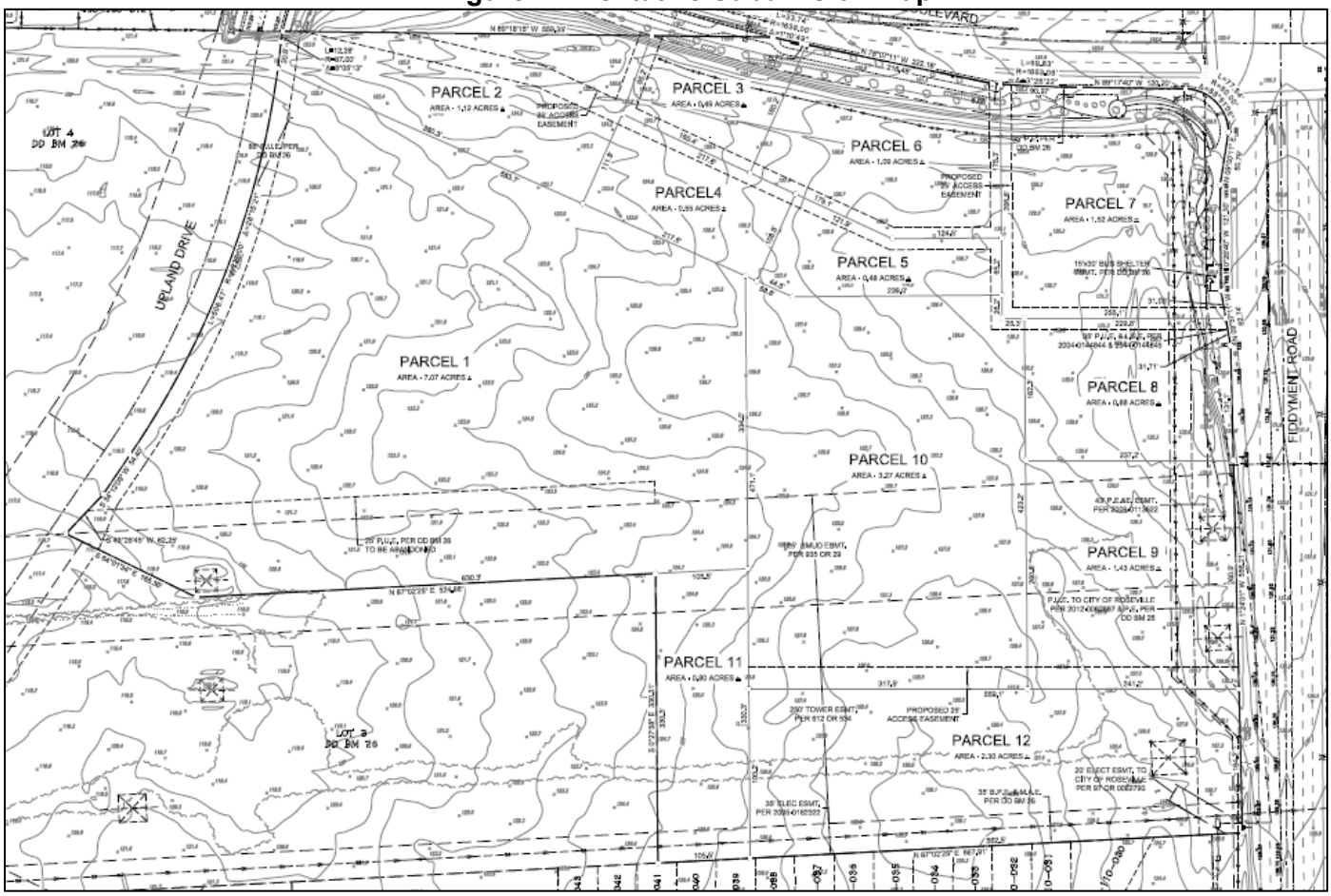
Environmental Setting

The project site is undeveloped, and is dominated by relatively flat topography supporting annual grasslands. There are no structures on the properties. No native oak trees or other trees are present on the subject parcels, as the area has historically been grazed and maintained. A power line corridor, including approximately 375 feet of easements, is located along the southern portion of the project site, traveling east to west. Existing and new subdivisions under development are located in the vicinity of the project area. The project parcels are generally located adjacent to residential land uses, as well as Open Space primarily for the purpose of power line easements.

Proposed Project

The project request includes a General Plan Amendment, Specific Plan Amendment, and Rezone to adjust the boundary between HDR parcel JM-30 and CC parcel JM-41. This would convert 0.44 net acres from HDR land use to CC land use. The zoning designation would be modified to reflect the land use changes. The project also requests the third amendment of the Mourier and Computer Deductions Development Agreement (DA) to reflect the proposed changes. Finally, the project requests a Tentative Subdivision Map to create 12 parcels, which would divide large lot parcel JM-41 into 11 commercial parcels and reconfigure parcel JM-30 to align with the proposed land use changes.

Figure 2 – Tentative Subdivision Map



PURPOSE AND SCOPE OF ADDENDUM

This Addendum has been prepared to identify and assess the anticipated environmental impacts of the above-described project. The document relies on previous environmental documents and site-specific studies prepared to address in detail the effects or impacts associated with the project as well as updated technical analyses, prepared by qualified consultants. This document has been prepared to satisfy the California Environmental Quality Act (CEQA), (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

Where, as here, an EIR addressing an earlier version of the project has been previously prepared and certified, the lead agency considers the relevance of that prior EIR in light of the current modified version of the project and changed circumstances since the time of the preparation of the prior EIR. Pursuant to CEQA Guidelines §15162-15163, if the lead agency determines, based on substantial evidence, that new information of substantial importance, or changes to the project or surrounding circumstances will require major revisions to the previous EIR due either to a new significant effect or a substantial increase in the severity of a previously identified significant effect on the environment, the lead agency is required to prepare a Subsequent EIR or an EIR Supplement to analyze the project at hand. Pursuant to CEQA Guidelines §15164, if the agency finds no basis for requiring the preparation of either a Subsequent EIR or an EIR Supplement, but some changes or additions are necessary, an Addendum shall be prepared.

The Sierra Vista Specific Plan EIR was adopted by City Council on May 5, 2010. The document analyzed the impacts that would occur as a result of development of the SVSP area. A copy of the SVSP EIR is available for review online at www.roseville.ca.us/planning under Specific Plans and then the Sierra Vista Specific Plan page. The City Council adopted a Statement of Overriding Considerations when it certified the SVSP EIR. The EIR identified the following impacts associated with development of the SVSP area, including the buildout of the project area, as significant and unavoidable:

- Conversion of agricultural land to developed uses
- Inducement of substantial population growth
- Increased traffic on City of Roseville roadways
- Increased traffic on State Highways, including Interstate 80
- Increased traffic on Placer County roadways
- Increased emissions of fugitive dust and PM10 from grading and trenching activities (short term)
- Increased emissions of ozone precursors during construction (short-term)
- Increased emissions of air pollutants during operation
- Loss of oak trees of greater than 6 inches diameter breast height (dbh) (short-term)
- Removal of historically significant properties and/or loss of historic integrity of such resources
- Increased demand for solid waste services at the Western Regional Sanitary Landfill
- Increased demand for solid waste services at the Materials Recovery Facility (MRF)
- Construction debris demand for solid waste services
- Alteration of the visual character of the site and vicinity
- New sources of light and glare

For build out of the SVSP project area, the SVSP EIR also identified the following cumulative impacts as significant and unavoidable:

- Agricultural land conversion
- Air pollutant emissions from construction
- Air pollutant emissions from operation
- Contribution to greenhouse gas emissions/global warming
- On-site noise levels that exceed City standards
- Off-site noise levels that exceed City standards

- Traffic impacts to Roseville, Placer County, Sacramento County, Sutter County and State facilities
- Increased demand for water
- Increased demand for recycled water distribution system
- Increased generation of solid waste
- Change in visual character

The analyses below rely on the EIR analysis with minor supplements or technical updates where appropriate. Most of the project impacts remain identical to the impacts of the SVSP EIR, because the proposed project is consistent with the land uses anticipated for the site and does not change the development footprint or anticipated grading for the site. Impacts to physical resources (such as agricultural land, biological resources, etc.) are based on the grading and development of an area, not on the land use designation of the property. For other types of impacts which are affected by land use type, the project uses reduce or maintain the same level of potential impacts.

ENVIRONMENTAL CHECKLIST FOR ADDENDUM ENVIRONMENTAL REVIEW

The purpose of this checklist is to evaluate the categories in terms of any "changed condition" (i.e. changed circumstances, project changes, or new information of substantial importance) that may result in a changed environmental result. A "no" answer does not necessarily mean there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact since it was analyzed and addressed in prior environmental documents.

EXPLANATION OF CHECKLIST EVALUATION CATEGORIES

Where Impact was Analyzed
This column provides a cross-reference to the pages of the prior environmental documents where information and analysis may be found relative to the environmental issue listed under each topic.

Do Proposed Changes Involve New Significant Impacts?
Pursuant to Section 15162(a)(1) of the CEQA Guidelines, this column indicates whether the changes represented by the current project will result in new significant impacts that have not already been considered and mitigated by the prior environmental review documents and related approvals, or will result in a substantial increase in the severity of a previously identified impact.

Any new Circumstances Involving New Impacts?
Pursuant to Section 15162(a)(2) of the CEQA Guidelines, this column indicates whether there have been changes to the project site or the vicinity (circumstances under which the project is undertaken) which have occurred subsequent to the certification or adoption of prior environmental documents, which would result in the current project having new significant environmental impacts that were not considered in the prior environmental documents or that substantially increase the severity of a previously identified impact.

Any new Information Requiring New Analysis or Verification?
Pursuant to Section 15162(a)(3)(A–D) of the CEQA Guidelines, this column indicates whether new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental documents were certified or adopted is available requiring an update to the analysis of the previous environmental documents to verify that the environmental conclusions and mitigation measures remain valid. Either "yes" or "no" will be answered to indicate whether there is new information showing that: (A) the project will have one or more significant effects not discussed in the prior environmental documents; (B) that significant effects previously examined will be substantially more severe than shown in the prior environmental documents; (C) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) that mitigation

measures or alternatives which are considerably different from those analyzed in the prior environmental documents would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. If "no," then no additional environmental documentation (supplemental or subsequent EIR) is required.

Mitigation Measures Implemented or Addressing Impacts
Pursuant to Section 15162(a)(3) of the CEQA Guidelines, this column indicates whether the prior environmental documents provide mitigation measures to address effects in the related impact category. In some cases, the mitigation measures have already been implemented. A "yes" response will be provided in any instance where mitigation was included, regardless of whether the mitigation has been completed at this time. If "none" is indicated, this environmental analysis concludes a significant impact does not occur with this project, no mitigation was previously included, and no mitigation is needed.

DISCUSSION AND MITIGATION SECTIONS

Discussion
A discussion of the elements of the checklist is provided under each environmental category in order to clarify the answers. The discussion provides information about the particular environmental issue, how the project relates to the issue and the status of any mitigation that may be required or has already been implemented.

Mitigation Measures
Applicable mitigation measures from the prior environmental review that apply to the project are listed under each environmental category.

Conclusions
A discussion of the conclusion relating to the analysis contained in each section.

OHER CONSIDERATIONS

Since certification of the SVSP EIR, the Office of Planning and Research (OPR) has updated CEQA Guidelines Appendix G (Environmental Checklist Form), effective early 2019[1]. These updates address legislative changes to CEQA, clarify language, and update language consistent with case law. None of the changes to the checklist require new analysis related to impacts which were not known or which could not have been known at the time the SVSP EIR was prepared. The majority of the checklist changes clarify language, reorganize existing language, or eliminate analysis requirements. For analysis requirements which have been eliminated, this is in response to case law affirming that analysis must focus on impacts caused by the project, not impacts to the project. An example of each of these types of changes is included below:

- Cultural Resources (a): Cause a substantial adverse change in the significance of an historic resource ~~as defined in~~ pursuant to Section 15064.5?

  The replacement of "as defined in" with "pursuant to" is a phrasing change which has no impact on required analysis.

- Cultural Resources (c) has been moved to Geology and Soils (f).

  Moving the topical section of this analysis requirement (which is related to paleontological resources) from Cultural Resources to Geology and Soils has no impact on required analysis.

- Noise (b): ~~Exposure of persons to or~~ Generation of excessive ground borne vibration of ground borne noise levels?

  The above changes redirect the analysis from considering overall exposure of persons to ground borne vibration, and focus the analysis on any ground borne vibration generated by a project. This same change is reflected in all other checklist questions related to noise. Therefore, the EIR included more analysis than is currently required, because they included analysis related to exposing neighboring areas to noise, but also analyzed the effect of noise on the proposed uses; the latter analysis is no longer required.

The updated CEQA Guidelines Appendix G also includes three new sections (Tribal Cultural Resources, Energy, and Wildfire) and includes new and modified requirements as part of the Transportation/Traffic section. Although the Tribal Cultural Resources section is new, the analysis of this impact area was included in the SVSP EIR as part of the Cultural Resources section. The new Energy section was formerly included in CEQA Guidelines Appendix F, but has been moved into the Appendix G, so while it is new to the checklist it is not new to the CEQA Guidelines. The changes to the Transportation/Traffic section—which is now called simply Transportation—refocuses the analysis on vehicle miles traveled (VMT).

As evaluated below, none of the modifications to CEQA Guidelines Appendix G require new analysis related to impacts which were not known or which could not have been known at the time the SVSP EIR was prepared. Therefore, an Addendum is the appropriate environmental document to describe the impacts of the proposed project.

[1]Although the older checklist could be used for this Addendum because of the date of publication of the original EIR, the updated checklist is used instead as part of a good-faith effort to provide the most up-to-date information to decision-makers and the public (Public Resources Code Section 21002.1(e); CEQA Guidelines Sections 15002(a)(1), 15003(c)).

CHECKLIST

I. Aesthetics

	Where Impact Was Analyzed in Prior Environmental Documents	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a. Have a substantial adverse effect on a scenic vista?	SVSP EIR Section 4.14	No	No	No	None
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Same	No	No	No	None
c. In non-urbanized area, 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?	Same	No	No	No	None
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	Same	No	No	No	SVSP EIR MM 4.13-1

Discussion: Impacts to visual and aesthetic resources were adequately addressed in the SVSP EIR as it relates to the proposed project, and were previously identified as significant and unavoidable. There is no significant change in the proposed project that would change the environmental impact for this section. The proposed project does not introduce development to properties not already planned for development. The proposed uses are substantially consistent with the build out assumptions and would not increase the severity of already identified significant impacts.

The project has been evaluated for compliance with the City's Community Design Guidelines (CDG) and the design guidelines established in the SVSP. The CDG establishes common design elements and expectations for development within the City. The CDG includes provisions related to architectural design, site design and landscape design, to enhance the visual character of the urban environment. It is noted that no architecture, site plan, or landscaping is proposed with the current request. The CDG recommends preserving, to the extent feasible, visual resources such as native oak trees and creek or wetland resources. The site does not contain any creek or wetland resources, nor does it contain any protected oak trees. The project has been reviewed by City staff and was found to be consistent with the goals and policies of the CDG, the SVSP, and applicable zoning regulations.

As it relates to light and glare, Mitigation Measure (MM) 4.13-1 requires all light fixtures for commercial and office uses to have glare shields and all new buildings to be constructed with low-glare materials. While the project does not involve development of the commercial parcel (Parcel JM-41) at this time, MM 4.13-1 is still applicable. In addition, lighting is conditioned to comply with City standards (i.e., CDG) to limit the height of light standards and also require cut-off lenses and glare shields to minimize light and glare impacts. Based on the reasons listed in this section, there would be no new significant impacts not previously identified in the SVSP EIR. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred" relative to aesthetic resources.

Mitigation Measures: SVSP EIR Mitigation Measures 4.13-1 (use low-glare materials) remains applicable to the proposed project. This mitigation measure can be found in the table of applicable mitigation measures included with this Addendum (see Attachment 1).

II. Agricultural & Forestry Resources

	Where Impact Was Analyzed in Prior Environmental Documents	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
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?	SVSP EIR Section 4.1	No	No	No	SVSP EIR MM 4.1-2
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Same	No	No	No	None
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))?	Same	No	No	No	None
d) Result in the loss of forest land or conversion of forest land to non-forest use?	Same	No	No	No	None
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?	Same	No	No	No	None

Discussion: Agricultural resources were adequately addressed in the SVSP EIR as it relates to the proposed project. There is no significant change in the proposed project that would change the environmental impact for this section. The SVSP EIR concluded development of the project area would convert fallow grazing land to urbanized development. The proposed project will result in the same impact, as it falls within the planned development footprint of the SVSP. The project site is not used for agricultural purposes, does not include agricultural zoning, and is not considered

forest land. None of the parcels within the project area is restricted to agricultural uses under the Williamson Act. For these reasons, no subsequent or supplemental EIR is required for the project with respect to agricultural and forestry resources.

Mitigation Measures: SVSP EIR Mitigation Measure (MM) 4.1-2 required preservation of open space within Placer County in order to mitigate for the loss of open space in the SVSP. Though this measure remains applicable to the project, the measure has been completed via an established fee program that directs funds to the Placer Land Trust, which then sets aside land.

III. Air Quality

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Conflict with or obstruct implementation of the applicable air quality plan?	SVSP EIR Section 4.4	No	No	No	None
b) Result in a cumulatively considerable net increase of any criteria for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Same	No	No	No	SVSP EIR MM 4.4-1, MM 4.5-1, and MM 4.5-2
c) Expose sensitive receptors to substantial pollutant concentrations?	Same	No	No	No	None
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Same	No	No	No	None

Discussion: The SVSP EIR concluded that standard dust control and other construction measures would be sufficient to avoid particulate matter and ozone precursor construction impacts, but that reactive organic gases would remain significant. Construction activity associated with the proposed project remains consistent with the scale of activity and resulting scope of impacts anticipated in the SVSP EIR. For operational impacts, the proposed project changes the balance of land uses in the area, but not in a manner that would increase emissions. No development plan has been proposed for the residential or commercial sites. There has been no change to the number of residential units that will be evaluated. The commercial site has increased from 13.48 to 13.92 acres, and per the SVSP is expected to develop approximately 250,000 square feet of commercial uses. The Specific Plan also indicates that there is a Floor Area Ratio (FAR) of 0.4 for the project site. Therefore, at 13.92 acres and a FAR of 0.4, the site can be expected to accommodate 242,542.08 square feet of commercial. This is less than what was previously evaluated for the project site by the Specific Plan. Therefore, the impacts of the project fall within the scope of the impacts and mitigation already established in the SVSP EIR.

Mitigation Measures: Mitigation Measures 4.4-1 (construction emissions), 4.5-1 (operational emissions), 4.5-2 (greenhouse gas emissions) from the SVSP EIR remain applicable to the proposed project, and have been incorporated into the design of the project as appropriate.

IV. Biological Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
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?	SVSP EIR Section 4.8	No	No	No	SVSP EIR MM 4.8-1 to 4.8-7
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Same	No	No	No	SVSP EIR MM 4.8-4 to 4.8-7
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?	Same	No	No	No	SVSP EIR MM 4.8-1 to 4.8-7
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?	Same	No	No	No	SVSP EIR MM 4.8-4 to 4.8-7
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Same	No	No	No	None

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?	Same	No	No	No	None

Discussion: Biological Resources were adequately addressed in the SVSP EIR as it relates to the proposed project. Mitigation measures were adopted to reduce impacts to wetlands, vernal pool species, Swainson's hawk, burrowing owl, and other protected raptors nesting and foraging habitat to less-than-significant levels. There is no significant change in the proposed project that would change the environmental impact for this section and the proposed project is located on properties already anticipated for development.

The proposed project would not result in any new or modified impacts to biological resources beyond what was previously analyzed in the SVSP EIR. In addition, it should be noted that there are no natural features present onsite. The project site is devoid of trees, vernal pools, and other water features. The site is primarily populated by non-native annual grasses and aerial photography shows evidence of previous ground disturbance on portions of the project site due to construction of the adjacent roadways. The mitigation measures adopted with certification of the SVSP EIR remain applicable and no additional impacts will occur. Impacts remain less than significant upon compliance with the applicable mitigation measures.

Based on the reasons listed in this section, there would be no new significant impacts not previously identified in the SVSP EIR. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred" relative to impacts to biological resources.

Mitigation Measures: Mitigation Measure MM 4.8-1 (wetland permits and no net loss), 4.8-2 (relocate western spadefoot), 4.8-3 (protection for nesting birds), 4.8-4 (preservation of grassland habitat), 4.8-5 (wildlife movement protection), 4.8-6 (habitat restoration), 4.8-7 (off-site surveys for infrastructure), and 4.14-3 (avoid light spill into Curry Creek open space) were identified to reduce the impacts to biological resources to less than significant. Not all of these measures are applicable to the currently proposed project, as the proposed development covers a smaller area within the SVSP project area. The Curry Creek open space is not within or adjacent to the proposed project, so none of the measures specific to the Curry Creek area apply to the current project. This includes portions of MM 4.8-3 dealing with bird species which nest in Curry Creek marsh habitat, and MM 4.14-3 to avoid light spillage into Curry Creek. The remaining adopted measures are applicable to the proposed project.

V. Cultural Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Cause a substantial adverse change in the significance of an historic resource pursuant to in Section 15064.5?	SVSP EIR Section 4.9	No	No	No	None
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Same	No	No	No	SVSP EIR MM 4.9-1 to 4.9-3
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Same	No	No	No	SVSP EIR MM 4.9-1 to 4.9-3

Discussion: The SVSP EIR discussed the potential for subsurface remains or deposits to be found on the site, and included a mitigation measure requiring a cessation of work should any item of cultural interest be found. The mitigation was found to render potential impacts less than significant. The project will result in the same impact, and the mitigation remains applicable to the proposed project.

Mitigation Measures: Mitigation Measure 4.9-1 (cease work and consult with archeologist), 4.9-2 (cease work and consult with paleontologist), and 4.9-3 (conduct appropriate studies) remain applicable to the proposed project.

VI. Energy

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	SVSP EIR Section 4.12.5	No	No	No	None
b) Conflict with or obstruct a state or local plan for renewable energy or energy inefficiency?	SVSP EIR Section 4.12.5	No	No	No	None

Discussion: The SVSP EIR concluded that development and implementation of the SVSP would add land uses that would increase the demand for electrical services. However, Roseville Electric determined there were no constraints to providing a reliable energy source to serve the development proposed in the SVSP area. Electricity in the area is provided by Roseville Electric and natural gas is provided by Pacific Gas & Electric (PG&E). Impacts 4.12-5.1 and 4.12-5-2 in the SVSP EIR evaluated the potential for development of the SVSP to increase demands for electricity and natural gas and found these impacts to be less than significant.

The project will allow for the future development of 176 high density residential units and approximately 13.92 acres of commercial development; however, no construction is proposed with the current request. The current project does not propose a change to the number of residential units allocated to parcel JM-30, and no change to the number of units in the Specific Plan overall. The project would consume energy both during project construction and during project operation. During construction, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. However, the energy consumed during construction would be temporary, and would not represent a significant demand on available resources. There are no unusual project characteristics that would necessitate the use of construction equipment or methods that would be less energy-efficient or which would be wasteful.

The completed project would consume energy related to building operation, exterior lighting, landscape irrigation and maintenance, and vehicle trips to and from the use. In accordance with California Energy Code Title 24, the Project would be required to meet the Building Energy Efficiency Standards. This includes standards for water and space heating and cooling equipment; insulation for doors, pipes, walls, and ceilings; and appliances, to name a few. The project would also be eligible for rebates and other financial incentives from both the electric and gas providers for the purchase of energy-efficient appliances and systems, which would further reduce the operational energy demand of the project. The project was distributed to both PG&E and Roseville Electric for comments, and was found to conform to the standards of both providers; energy supplies are available to serve the project.

The SVSP EIR included an assessment of energy impacts for the entire plan area. The analysis included consideration of transportation energy, and evaluated walkability, alternative transportation modes, and the degree to which the mix and location of uses would reduce vehicle miles traveled in the plan area. The EIR also included a citywide assessment of energy demand based on the existing and proposed land uses within the City and Specific Plan. Impacts related to energy consumption were found to be less than significant. The proposed project is consistent with the existing land use designation, and therefore is consistent with the current citywide assessment of energy demand, and will not result in substantial unplanned, inefficient, wasteful, or unnecessary consumption of energy; impacts are less than significant.

Based on the reasons listed in this section, there would be no new significant impacts not previously identified in the SVSP EIR. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred" relative to energy impacts.

Mitigation Measures: None required for this Project.

VII. Geology and Soils

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	SVSP EIR Section 4.7	No	No	No	None
i) Ruptures 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.)	Same	No	No	No	None
ii) Strong seismic ground shaking?	Same	No	No	No	None
iii) Seismic-related ground failure, including liquefaction?	Same	No	No	No	None
iv) Landslides?	Same	No	No	No	None
b) Result in substantial soil erosion or the loss of topsoil?	Same	No	No	No	None
c) Be located in a geological 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?	Same	No	No	No	None
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Same	No	No	No	None

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Same	No	No	No	None
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	SVSP EIR Section 4.7 and Section 4.9	No	No	No	SVSP EIR MM 4.9-2 to MM 4.9-3

Discussion: The project is not expected to expose people or structures to potential substantial adverse effects involving seismic shaking, ground failure or landslides. The project site is located in Roseville, which is in Placer County. The California Department of Mines and Geology classifies the South Placer area as a low severity earthquake zone. No active faults are known to exist within the County. The project site is considered to have low seismic risk with respect to faulting, ground shaking, seismically related ground failure and liquefaction.

The SVSP EIR indicated that compliance with existing regulations and permit requirements would be sufficient to avoid impacts related to these issues. This conclusion remains appropriate for the proposed project because there is no new information indicating that geologic conditions are different than previously understood. The SVSP EIR discussed the potential for paleontological resources to be found on the site, and included a mitigation measure requiring a cessation of work should any be found on site. The mitigation was found to render potential impacts less than significant. The project will result in the same impact, and the mitigation remains applicable to the proposed project.

Based on the reasons listed in this section, there would be no new significant impacts not previously identified in the SVSP EIR. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred” relative to geology and soil impacts.

Mitigation Measures: Mitigation Measure 4.9-2 (cease work and consult with paleontologist) and 4.9-3 (conduct appropriate studies) remain applicable to the proposed project.

VIII. Greenhouse Gases

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	SVSP EIR Section 4.4	No	No	No	SVSP EIR MM 4.4-1, 4.5-1 and 4.5-2
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Same	No	No	No	None

Discussion: The SVSP EIR concluded that buildout of the project area would cause significant and unavoidable impacts with respect to greenhouse gases (GHG) emissions and mitigation measures were adopted to reduce the project's GHG emissions and resultant impacts. Construction activity associated with the proposed project remains consistent with the scale of activity and resulting scope of impacts anticipated in the SVSP EIR. For operational impacts, the proposed project changes the balance of land uses in the area, but not in a manner that would increase emissions. Greenhouse gas emissions, from both the construction and operational phases, will result in impacts consistent with those analyzed in the SVSP EIR. The project will comply with the required mitigation in the SVSP EIR. Thus, pursuant to CEQA Guidelines Section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred" relative to GHG emissions.

Mitigation Measures: Mitigation Measures 4.4-1 (construction emissions), 4.5-1 (operational emissions), and 4.5-2 (greenhouse gas emissions) from the SVSP EIR remain applicable to the proposed project, and have been incorporated into the design of the project as appropriate.

IX. Hazards and Hazardous Materials

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	SVSP EIR Section 4.10	No	No	No	None
b) Create a significant hazard to the public or the environment though reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Same	No	No	No	SVSP EIR MM 4.10-1
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Same	No	No	No	None
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?	Same	No	No	No	None
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Same	No	No	No	None
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Same	No	No	No	None

g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	Same	No	No	No	None

Discussion: The SVSP EIR includes a brief overview for each impact topic, concluding that compliance with existing federal, state, and local regulations regarding the use, transport and disposal of hazardous materials would ensure most impacts will be less than significant. The exception was for unknown soil contamination, as land which was used for agricultural purposes may include undiscovered, underground storage tanks or other contamination issues; mitigation for this was included. The project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The SVSP EIR analysis also found that there would be sufficient emergency services and facilities and that the area was not located within an airport land use plan or other aviation hazard area. These conclusions still fit for the proposed project, which is within the same development footprint.

Standard construction activities would require the use of hazardous materials such as fuels, oils, lubricants, glues, paints and paint thinners, soaps, bleach, and solvents. These are common household and commercial materials routinely used by both businesses and average members of the public. The materials only pose a hazard if they are improperly used, stored, or transported either through upset conditions (e.g. a vehicle accident) or mishandling. In addition to construction use, the operational project would result in the use of common hazardous materials as well, including bleach, solvents, and herbicides. Regulations pertaining to the transport of materials are codified in 49 Code of Federal Regulations 171–180, and transport regulations are enforced and monitored by the California Department of Transportation and by the California Highway Patrol. Specifications for storage on a construction site are contained in various regulations and codes, including the California Code of Regulations, the Uniform Fire Code, and the California Health and Safety Code. These same codes require that all hazardous materials be used and stored in the manner specified on the material packaging. Existing regulations and programs are sufficient to ensure that potential impacts as a result of the use or storage of hazardous materials are reduced to less than significant levels.

The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local responsibility. The project site is in an urban area, and therefore would not expose people to any risk from wildland fire.

The proposed uses are substantially consistent with the build out assumptions and would not increase the severity of already identified significant impacts; therefore, there would be no new significant impacts not previously identified in the SVSP EIR regarding hazardous materials. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred” relative to hazards and hazardous materials.

Mitigation Measures: The SVSP EIR included a mitigation measure to address the low possibility that some contamination of soils still lingered due to past use of the land for agricultural purposes. The measure, Mitigation Measure 4.10-1, indicates that if evidence of contamination is observed (stained soils, unearthing of a tank, etc.) then proper testing and remediation is required, in coordination with the appropriate City Departments. This measure remains applicable to the project.

X. Hydrology and Water Quality

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	SVSP EIR Section 4.13	No	No	No	None
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Same	No	No	No	None
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:	Same	No	No	No	None
i) result in substantial erosion or siltation on or off-site;	Same	No	No	No	None
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	Same	No	No	No	None
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater systems or provide substantial additional sources of polluted runoff; or	Same	No	No	No	None
iv) impede or redirect flood flows?	Same	No	No	No	None

d) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Same	No	No	No	None
e) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Same	No	No	No	None
f) In flood hazard, tsunami, or seiches zones, risk release of pollutants due to project inundation?	Same	No	No	No	None

Discussion: A Drainage and Storm water Master Plan was prepared and approved by the City as part of the SVSP EIR. As noted in the EIR, the Drainage and Storm water Master Plan demonstrated that the increases in impervious surfaces being caused by buildout of the SVSP would be offset by proposed drainage facilities and storm water improvements. The project would offset increases in peak flow, no development would occur within the 100-year floodplain area, and consistency with existing City regulations would ensure that all homes would be elevated at least two feet above the 100-year water surface elevation. With regard to storm water quality, the EIR notes that there are existing programs, regulations, and permits in place to ensure that the project would not have significant effects related to water pollution from construction or operation, though a mitigation measure is included to require compliance with this regulations.

The project is in an area of flat topography and is not near any large water bodies or dams/levees, so would not be subject to losses due to dam/levee failure, seiche, tsunami, or mudflow. The project falls within the development footprint of the SVSP, and does not result in any changes to the scope or scale of impacts, and the prior conclusions remain appropriate. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred” relative to hydrology and water quality.

Mitigation Measures: Mitigation Measure 4.13-1 was included to require compliance with the City’s stormwater quality standards, including preparation of a Storm Water Pollution Prevention Plan (SWPPP). This measure remains applicable to the proposed project.

XI. Land Use and Planning

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Physically divide an established community?	SVSP EIR Section 4.1	No	No	No	None
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect?	Same	No	No	No	SVSP EIR MM 4.1-3, 4.6-1 and 4.6-2

Discussion: The SVSP EIR concluded that there were some potential land use incompatibilities, but that these could be addressed by a mix of mitigation and compliance with the City Noise Ordinance and Grading Ordinance. Land use issues discussed and addressed included noise from McClellan overflights, agricultural uses in Placer County next to urban uses in the SVSP, construction noise, and commercial land use noise. The overflight noise is a potential nuisance discussion requiring disclosure to future purchasers within the Project area; noise volumes do not exceed standards. It was concluded that the project would not physically divide an established community and that the project did not conflict with any land use policies or regulations, or with a Habitat Conservation Plan (or similar). The EIR concluded that all impacts of the SVSP could be reduced to less than significant levels with mitigation. The project involves the same use types within the same development footprint, and therefore the conclusions of SVSP EIR remain applicable to the proposed project. In addition, the project is consistent with the policies of the Zoning Ordinance, SVSP, and the General Plan which are adopted for the purpose of avoiding environmental effects.

The project area has been planned for development, including adequate roads, pedestrian paths, and bicycle paths to provide connections within the community. The project involves frontage improvements including new driveways, sidewalks, and pedestrian connections. As such, the project will not physically divide an established community.

As described above, changes introduced by the project and/or new circumstances relevant to the project would not, as compared to the SVSP EIR, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred" relative to land use and planning.

Mitigation Measures: Mitigation Measure 4.1-3 (McClellan overflight disclosure), 4.6-1 (construction noise) and 4.6-2 (commercial noise controls). The measure regarding disclosure ensure that people purchasing property within the project area which could be affected by overflight noise are aware of this potential affects. The disclosure measure is implemented by including a Condition of Approval requiring that the deed

disclosures are a component of the Covenants, Conditions, and Restrictions for all affected properties. The condition has been addressed in the Development Agreement for the project area, so the measures are already complete. The construction noise and commercial noise control measures are applied during construction, so remain applicable to the proposed project.

XII. Mineral Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
c) 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?	SVSP EIR Section 4.7	No	No	No	None
d) 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?	Same	No	No	No	None

Discussion: The SVSP EIR indicated that there were no significant mineral resources in the area. Therefore, the project is not considered to have any impacts on mineral resources. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred" relative to mineral resources.

Mitigation Measures: None required for this Project.

XIII. Noise

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
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?	SVSP EIR Section 4.6	No	No	No	SVSP EIR MM 4.1-3, 4.6-1 and 4.6-4
b) Generation of excessive ground borne vibration of ground borne noise levels?	Same	No	No	No	SVSP EIR MM 4.6-1 and 4.6-4
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Same	No	No	No	None

Discussion: The SVSP EIR addressed construction noise, roadway noise, noise from non-residential land uses, and aircraft overflight noise. Overflight noise has already been addressed in the Land Use section of this Addendum. Construction noise in general was discussed, and addressed via mitigation. Noise was determined to be an issue for all of the major roadways in the SVSP area. Mitigation was found to reduce noise volumes to levels within General Plan standards, and so impacts were found to be less than significant. Given the proposed project does not expand the limits of the development footprint or the project's physical impact boundary, no additional noise analysis is required. The mitigation measures adopted with the SVSP EIR remain applicable and no additional impacts will occur.

The SVSP EIR also analyzed noise impacts related to placing residential uses within proximity to noise generating uses such as roadways. Though the previous document analyzed the effects of transportation noise on the proposed residential uses, the CEQA checklist items related to noise impacts have been updated and that analysis in no longer required. No additional analyses of the impact from existing and future noise sources on residential properties is required.

Based on the foregoing, the project would not result in new or more severe impacts than described in the SVSP EIR, and the impact conclusions of the EIR are unchanged. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred" relative to noise.

Mitigation Measures: Mitigation Measures 4.1-3 (McClellan overflight disclosure), 4.6-1 (construction noise), and 4.6-4 (traffic noise attenuation) were applied in the SVSP EIR. Construction noise controls in the mitigation includes located fixed equipment away from noise sensitive uses and having a construction disturbance coordinator to address noise concerns. Traffic noise attenuation also calls for the use of masonry walls along major roadways. These mitigation measures remain applicable to the proposed project.

XIV. Population and Housing

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, though extension of roads or other infrastructure)?	SVSP EIR Section 4.2	No	No	No	None
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Same	No	No	No	None

Discussion: The SVSP EIR indicated the SVSP would increase the number of housing units above those which had been anticipated in the General Plan, and analysis the effect on supporting services, infrastructure, and other issues related to environmental impacts. It was concluded that impacts would be significant and unavoidable. The proposed project involves the same number of housing units as analyzed in the SVSP EIR, therefore the project will not have a new or more severe impact on the population growth rate of the area. No existing buildings or residents are present on the project site; therefore, no residences or communities would be displaced.

Mitigation Measures: None required for this Project.

XV. Public Services

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any the public services:					
a) Fire protection?	SVSP EIR Section 4.11	No	No	No	None
b) Police protection?	Same	No	No	No	None
c) Schools?	Same	No	No	No	SVSP EIR MM 4.11-3
d) Parks?	Same	No	No	No	None
e) Other public facilities?	Same	No	No	No	None

Discussion: The SVSP EIR concluded that fire and police protection services, and other public services would not be negatively affected by the project. Existing City codes and regulations require adequate water pressure in the water lines, and construction must comply with the Uniform Fire and Building Codes used by the City of Roseville. Additionally, the applicant is required to pay a fire service construction tax, which is used for purchasing capital facilities for the Fire Department. Sales taxes and property taxes resulting from development will add revenue to the General Fund, which provides funding for police services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

An analysis of impacts to schools was included in the SVSP EIR, which concluded that two new elementary schools and one new intermediate school would be required in the project area. The high school students generated from the SVSP were assumed in the nearby high schools located outside the plan area. A portion of the SVSP is located within the Center School District and a portion is located within the Roseville City School District, though the current project area is entirely within the Center School District. The project will not change the overall number of housing units in the SVSP; therefore, the conclusions of SVSP EIR remain applicable to the proposed project.

The project was routed to the School District for review, and no issues were identified. The project will be required to pay per-unit school fees to mitigate any impacts. Under state law, such payments are deemed to constitute "*full and complete mitigation*" of impacts to school facilities (Gov. Code, § 65995, subd. (h)). In addition, the developer is required to work with the School District to identify a Safe Routes to School program. Impacts to public services were determined to be less than significant, with mitigation.

The developer will be required to pay fees into a Community Facilities District, which provides funding for park services. Future park and recreation sites and facilities have already been identified as part of the Specific Plan process. The City charges fees for end-users for other services, such as garbage and greenwaste collection, in order to fund those services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

Based on the evaluation above, the project would not result in new or more severe impacts than described in the SVSP EIR, and the impact conclusions of the EIR are unchanged. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred" relative to public services.

Mitigation Measures: Mitigation Measure 4.11-3 requires a Safe Routes to School program, which would be implemented at the time of school construction, and remains applicable to the proposed project.

XVI. Recreation

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?	SVSP EIR Section 4.11	No	No	No	None
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?	Same	No	No	No	None

Discussion: The SVSP indicates that the required parkland dedication was met by dedication of parkland and through payment of park dedication in-lieu fees. As noted in the EIR, the payment of Citywide and neighborhood park fees will be required, and the payment of fees combined with the dedication of parkland will ensure that impacts to park services are less than significant. As there are no unit transfers proposed with the project, the project will not increase the number of residents anticipated for the SVSP nor decrease the amount of area dedicated to park and recreation uses; therefore, this conclusion remains applicable to the proposed project. Given the foregoing, the project would not result in new or more severe impacts than described in the SVSP EIR, and the impact conclusions of the EIR are unchanged. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred” relative to recreation impacts.

Mitigation Measures: None required for this Project.

XVII. Transportation

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	SVSP EIR Section 4.3	No	No	No	SVSP EIR MM 4.3-1 to 4.3-5
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	n/a	No	No	No	None
c) Substantially increase hazards due to a geometric design feature(s) (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	SVSP EIR Section 4.3	No	No	No	None
d) Result in inadequate emergency access?	Same	No	No	No	None

Discussion: The SVSP EIR evaluated the traffic impacts to existing and future roadways from traffic being generated by the anticipated uses within the plan area. The EIR concluded that with mitigation, impacts to City roadways would be less than significant. Impacts to adjacent agency roadways was identified as a significant and unavoidable impact, and mitigation to lessen the impact was accepted. For the proposed project, the City's Engineering Division reviewed the scope of changes and concluded that an updated traffic study was not required. There is no change in the proposed number or type of residential units on parcel JM-30. Therefore, the project would not cause new or more severe impacts than already described in the SVSP EIR.

Checklist item b) focuses on Vehicle Miles Traveled (VMT). This was added to the checklist after publication of the SVSP EIR. However, the General Plan Update (GPU) EIR[2] used the Roseville travel forecasting model to estimate VMT for the City. The VMT data was then normalized to residents as a "per capita" rate. As described in the GPU EIR, and consistent with the VMT reductions in OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, the City has adopted a VMT significance threshold of 12.8 VMT/capita. This threshold represents a 15 percent reduction to baseline per capita VMT. The GPU EIR concluded that buildout of the remaining undeveloped areas of the City, consistent with existing land use designations and existing development agreements, would exceed the City's adopted threshold resulting in a

[2] General Plan Update EIR: www.roseville.ca.us/GeneralPlan

Significant Impact in both the constrained and unconstrained buildout scenarios; and that mitigation requiring land use changes was not feasible because of existing development agreements in place for the undeveloped areas of the City.

As stated in the GPU EIR and pursuant to the tiering provisions of CEQA, projects that are consistent with the General Plan do not require further VMT analysis. Quantitative analyses are not required if it can be demonstrated that a project would generate VMT which is equivalent to or less than what was assumed in the GPU EIR. The GPU EIR assumed a rate of 2.7 persons per unit when calculating VMT per capita. The proposed project does not include any changes to the number or type of units anticipated for buildout of the SVSP or analyzed in the GPU EIR; therefore, it can be concluded that the project is consistent with GPU EIR analysis as it relates to VMT, and the project does not require further VMT analysis.

The proposed project has no impact on air traffic patterns, and does not present substantial safety risks. The project design does not introduce hazards such as sharp curves or dangerous intersections. The project has been reviewed by the City Engineering Division and City Fire Department staff, and has been found to be consistent with the City's Design Standards. Furthermore, standard conditions of approval added to all City project require compliance with Fire Codes and other design standards. Compliance with existing regulations ensure that impacts are less than significant.

The proposed uses are substantially consistent with the build out assumptions and would not increase the severity of already identified significant impacts; therefore, there would be no new significant impacts not previously identified in the SVSP EIR relative to transportation. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred" relative to transportation.

Mitigation Measures: Mitigation was included for each impacted facility (see SVSP EIR MM 4.3-1 to 4.3-5), but these measures have already been incorporated into the City's Capital Improvement Program and fee programs. The measures are no longer necessary to impose on individual projects, as a mechanism for their funding and construction is already implemented.

XVIII. Tribal Cultural Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	SVSP EIR Section 4.9	No	No	No	None
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 the lead agency shall consider the significance of the resource to a California Native American tribe.	Same	No	No	No	None

Discussion: In addition to archeological resources, tribal cultural resources are also given particular treatment. Tribal cultural resources are defined in Public Resources Code Section 21074, as either 1) a site, feature, place, geographically-defined cultural landscape, sacred place, or object with cultural value to a California Native American Tribe, that is listed or eligible for listing on the California Register or Historical Resources, or on a local register of historical resources or as 2) a resource determined by the lead agency, supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code section 5024.1(c), and considering the significance of the resource to a California Native American Tribe. This section was added to the CEQA Guidelines after the publication of the prior environmental document to which this Addendum is attached, but cultural resources were addressed in that document. The only item not completed was the required notice to tribes which have requested such notice pursuant to the Public Resources Code. Previously applied mitigation should be adequate to address potential impacts of the project, which require cessation of work should any item of cultural interest be found, to ensure the project will have a less than significant impact on cultural resources. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred" relative to Tribal Cultural Resources.

Mitigation Measures: Mitigation Measure 4.9-1 (cease work and consult with archeologist) and 4.9-2 (cease work and consult with paleontologist) remain applicable to the proposed project.

XIX. Utilities and Service Systems

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	SVS EIR Section 4.12.1 & 4.12.3	No	No	No	None
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	SVSP EIR Section 4.12.1	No	No	No	None
c) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?	SVSP EIR Section 4.12.3	No	No	No	None
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?	SVSP EIR Section 4.12.4	No	No	No	None
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Same	No	No	No	None

Discussion: The SVSP EIR addressed water demand for the plan area and determined there was adequate supply to meet the anticipated water demands from development of the plan area. The City's Environmental Utilities Department staff reviewed the proposed project and concluded there is sufficient water supply to meet the demands of the project. Therefore, the impact conclusions of the SVSP EIR with respect to water supply are still applicable to this project.

Development of the project area will require the construction of water lines and sewer lines and facilities, but these were previously identified through the infrastructure master plans developed for the SVSP. The project land use changes do not require any major changes or need for expanded facilities. Additionally, the project will have no effect on wastewater generation beyond that previously analyzed in the SVSP EIR. Environmental Utilities determined that the proposed project changes fell within the scope of the prior assessment. The SVSP EIR concluded that the Pleasant Grove Wastewater Treatment Plan was sized to accommodate flow from the plan area and that impacts would be less than significant. This conclusion remains applicable to the proposed project.

The SVSP EIR indicated that the Western Placer Waste Management Authority facilities would be used to dispose of solid waste, and that there was sufficient capacity to accept solid waste from the SVSP. Solid waste generation is based on population, and as the project will not change the estimated population for the plan area, the project falls within the scope of the prior analysis, and does not result in any new or expanded impacts to this previously-identified significant and unavoidable impact.

As described above, changes introduced by the project and/or new circumstances relevant to the project would not, as compared to the SVSP EIR, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR or negative declaration have occurred."

Mitigation Measures: Mitigation Measures 4.12.4-1 (expand the landfill) and 4.12.4-2 (diversion of construction debris) were included to require payment of fees to be used for landfill expansion and to require a 50% reduction in the construction waste stream. The landfill expansion measure has already been implemented, as fees are already in place that will apply to the proposed project. The remaining measure regarding diversion of construction debris remains applicable, as it is a project-level measure that applies during construction.

XX. Wildfire

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
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?	n/a	No	No	No	None
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?	n/a	No	No	No	None
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?	n/a	No	No	No	None
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?	n/a	No	No	No	None

Discussion: The Wildfire section was added to the CEQA Guidelines after the publication of the prior environmental document to which this Addendum is attached. The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local

responsibility. Checklist questions a—d above do not apply, because the project site is not within a Very High Fire Hazard Severity Zone and is not in a CAL FIRE responsibility area. Therefore, there would be no impact to this criteria.

Mitigation Measures: None required for this Project.

XXI. Mandatory Findings of Significance

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, threatened or rare species, or eliminate important examples of the major periods of California history or prehistory?	SVSP EIR	No	No	No	None
b) Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	SVSP EIR	No	No	No	None
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	SVSP EIR	No	No	No	None

Discussion: Long term environmental goals are not impacted by the proposed project. The cumulative impacts do not deviate beyond what was contemplated in the SVSP EIR, and mitigation measures have already been incorporated. With implementation of the City's Mitigating Ordinances, Guidelines, and Standards and best management practices, mitigation measures described in this chapter, and permit conditions, the proposed project will not have a significant impact on the habitat of any plant or animal species. Based on the foregoing, the project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of any wildlife species, or create adverse effects on human beings. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred" relative to the mandatory findings of significance.

ENVIRONMENTAL DETERMINATION:

In reviewing the site specific information provided for this project and acting as Lead Agency, the City of Roseville, Development Services Department, Planning Division has analyzed the potential environmental impacts created by this project and determined that the findings of CEQA Section 15162 concerning the decision not to prepare a subsequent EIR or negative declaration and the findings of CEQA Section 15164 concerning the decision to prepare an Addendum can be made. As supported by substantial evidence within the Addendum to the Sierra Vista Specific Plan EIR (2008032115, adopted on May 5, 2010), the Lead Agency makes the following findings:

[**X**] No substantial changes are proposed in the project which would require major revisions of the previous EIR or Mitigated Negative Declaration.

[**X**] No substantial changes have occurred with respect to the circumstances under which the project is undertaken.

[**X**] There is no new information of substantial importance which was not known and could not have been known with the exercise of due diligence at the time the previous EIR was certified as complete or the Mitigated Negative Declaration was adopted.

[**X**] Only minor technical changes or additions are necessary in order to deem the adopted environmental document adequate.

Addendum Prepared by:

_____

Shelby Maples, Associate Planner
City of Roseville, Development Services–Planning Division

Attachments:

1. SVSP Applicable Mitigation Measures

TABLE OF APPLICABLE MITIGATION MEASURES

Mitigation Measure	Implementation	Timing	Reviewing Party	Documents to be Submitted to City	Staff Use Only
MM 4.1-3b Condition of Approval for Deed Disclosure of Overflights McClellan Airport is located approximately four miles from the southern boundary of the project area. In order to notify residents or other sensitive uses, that aircraft on approach or departure under 3,000 feet could occur over the project area, a deed disclosure or similar notice approved by the City Attorney regarding the proximity and nature of aircraft in the vicinity shall be provided.	The applicants shall be responsible for ensuring that future residents or other sensitive uses are given notice regarding proximity to McClellan. This disclosure shall be applied at the tentative map stage.	Prior to issuance of an occupancy permit of any residence or sensitive use.	City Attorney; The Public Works Department and the Building Official shall ensure that construction measures meet City noise standards.	Deed Disclosure or similar notice	
MM 4.4-1 Dust and Construction Control Measures In accordance with the PCAPCD, the applicant shall comply with all applicable rules and regulations as listed above (e.g., Rule 202, 218 and 228). In addition, at the time of tentative map the applicant(s) shall implement a minimum of five (5) of the following measures unless superseded by state or other more stringent standards: The following mitigation measures shall be implemented to reduce short-term construction-related air quality impacts. In addition, dust control measures are required to be implemented by all projects in accordance with the City of Roseville Grading Ordinance, and the PCAPCD Fugitive Dust Rule 228. • Applicant shall submit to PCAPCD a Construction Emission / Dust Control Plan within 30 days prior to groundbreaking. If the PCAPCD does not respond within 20 days, the plan shall be considered approved. The plan must address the minimum requirements found in section 300 and 400 of District Rule 228, Fugitive Dust (www.placer.ca.gov/airpollution/airpolut.htm). The applicant shall keep a hard or electronic copy of Rule 228, Fugitive Dust on-site for reference. • The Construction Emission/Dust Control Plan shall include a comprehensive inventory (i.e. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower (HP) of greater) that will be used an aggregate of 40 or more hours for the construction project. If any new equipment is added after submission of the inventory, the prime contractor shall the prime contractor shall contact the APCD prior to the new equipment being utilized. The project representative shall provide PCAPCD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The plan shall demonstrate that the heavy-duty (> 50 HP) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent ARB fleet average. PCAPCD shall be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. Contractors can access the Sacramento Metropolitan Air Quality Management District's web site to determine if their off-road fleet meets the requirements listed in this measure (http://www.airquality.org/ceqa/Construction_Mitigation_Calculator.xls). The following measures are also included to reduce construction-related ROG, NOx, PM10 and PM2.5 emissions: • All construction equipment shall be maintained in good operating condition. Contractor shall ensure that all construction equipment is being properly serviced and maintained as per the manufacturer's specifications. Maintenance records shall be available at the construction site for verification. This measure will reduce combustion emissions of all criteria air pollutants. • Prior to the issuance of any grading permits, all applicants shall submit construction plans denoting the proposed schedule and projected equipment use. Construction contractors shall provide evidence that low emission mobile construction will be used, or that their use was investigated and found to be infeasible for the project. Low emission equipment is defined as meeting the California Air Resources Board's Tier III standards. Contractors shall also conform to any construction measures imposed by the PCAPCD as well as City Planning Staff. This measure will primarily reduce ROG, NOx, PM10, and PM2.5 exhaust emissions.	The applicants shall submit construction management plans as part of the Grading Permit application. Engineering will review plans for inclusion of these measures prior to issuance of permits or approval of plans.	*Pre-Construction*: Prior to issuance of Grading Permits or Improvement Plans. Add as note on Improvement Plans.	Engineering	Dust Control Plan and proof of submittal to PCAPCD	

• Paints and coating shall be applied either by hand or by high volume, low-pressure spray. This measure will reduce evaporative ROG emissions.
• All construction shall comply with the following measures to reduce fugitive dust related emissions of PM10 and PM2.5:
  ○ Maintain a minimum 24-inch freeboard on soil haul trucks or cover payloads using tarps or other suitable means.
  ○ Suspend grading operations during high winds (greater than 15 mph).
  ○ Sweep streets as necessary if silt is carried off-site to adjacent public thoroughfares or occurs as a result of hauling.
  ○ Dispose of surplus excavated material in accordance with local ordinances and use sound engineering practices.
  ○ Schedule activities to minimize the amounts of exposed excavated soil during and after the end of work periods.
  ○ Phase grading into smaller areas to prevent the susceptibility of larger areas to erosion over extended periods of time.
  ○ Pave or apply gravel to any on-site haul roads.
  ○ Reestablish ground cover on the construction site through seeding and water.
  ○ Clean earth moving construction equipment with water or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with National Pollutant Discharge Elimination System Best Management Practices and the Roseville Grading Ordinance. Water shall be applied to control dust as needed to prevent dust impacts offsite. Operational water truck(s), shall be on-site, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned, as needed, to prevent dust, silt, mud, and dirt from being released or tracked off-site.
  ○ Spread soil binders on unpaved roads and employee/equipment parking areas. Soil binders shall be non-toxic in accordance with state and local regulations. Apply approved chemical soil stabilizers, or vegetated mats, etc. according to manufacturers' specifications, to all-inactive construction areas (previously graded areas which remain inactive for 96 hours).
  ○ Minimize diesel idling time to a maximum of five minutes.
  ○ Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible.
  ○ An applicant representative, ARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely (i.e., once per week) evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement for projects grading more than 20 acres in size, regardless of how many acres are to be disturbed daily.
  ○ Construction equipment exhaust emissions shall not exceed the PCAPCD Visible Emissions Rule 202. Fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified and the equipment must be repaired within 72 hours.
The following measures will be required:
1. Include the following standard note on the Improvement/Grading Plan: *If required by the Public Works Department, the contractor shall hold a pre-construction meeting prior to grading activities. The contractor shall invite the Placer County APCD to the pre-construction meeting in order to discuss the construction emission/dust control plan with employees and/or contractors.*
2. Prior to building permit approval, the applicant shall show, on the plans submitted to the Building Department, that electrical outlets shall be installed on the exterior walls of both the front and back of all residences or all commercial buildings to promote the use of electric landscape maintenance equipment.
3. Prior to building permit approval, the applicant shall show, on the plans submitted to the Building Department, provisions for construction of new residences, and where natural gas is available, the installation of a gas outlet for use with outdoor cooking appliances, such as a gas barbecue or outdoor recreational fire pits.
4. Prior to building permit approval, in accordance with District Rule 225, only U.S. EPA Phase II certified wood burning devices shall be allowed in single-family residences. The emission potential from each residence shall not exceed a cumulative total of 7.5 grams per hour for					

all devices. Masonry fireplaces shall have either an EPA certified Phase II wood burning device or shall be a U.L. Listed Decorative Gas Appliance. (Rule 225) 5. Wood burning or Pellet appliances shall not be permitted in multi-family developments. Only natural gas or propane fired fireplace appliances are permitted. These appliances shall be clearly delineated on the Floor Plans submitted in conjunction with the Building Permit application. (Rule 225 / section 302.2) 6. Prior to the issuance of a Building Permit, the applicant shall show that all flat roofs with parapets shall include a white or silver cap sheet to reduce energy demands. 7. Diesel trucks shall be prohibited from idling more than five minutes. Prior to the issuance of a Building Permit, the applicant shall show that all truck loading and unloading docks shall be equipped with one 110/208 volt power outlet for every two dock doors. Diesel Trucks idling for more than five minutes shall be required to connect to the 110/208 volt power to run any auxiliary equipment. 2'x3' signage which indicates "Diesel engine Idling Limited to a Maximum of 5 Minutes" shall be shown on the building elevations and shall be submitted to the Placer County APCD prior to the issuance of Building Permits for the project. 8. Prior to approval of Improvement Plans, an enforcement plan shall be established, and submitted to the APCD for review, in order to evaluate project-related on-and-off- road heavy-duty vehicle engine emission opacities on a weekly basis, using standards as defined in California Code of Regulations, Title 13, Sections 2180 – 2194. An Environmental Coordinator, hired by the prime contractor or property owner, and who is CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project related off-road and heavy duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified by APCD and the equipment must be repaired within 72 hours. (California Code of Regulations, Title 13, Sections 2180 – 2194) *The project shall comply with all applicable Placer County Air Pollution Control District rules and regulations, and shall obtain applicable permits and/or clearances from the District prior to the start of construction.* • The contractor shall use CARB ultra-low sulfur diesel fuel for all diesel–powered equipment. In addition, low sulfur fuel shall be utilized for all stationary equipment. (California Standards for Motor Vehicle Diesel Fuel, title 13, article 4.8, chapter 9, California Code of Regulations). • Processes that discharge 2 pounds per day or more of air contaminants, as defined by Health and Safety Code Section 39013, to the atmosphere may require a permit. Permits are required for both construction and operation. Developers/contractors should contact the District prior to construction and obtain any necessary permits prior to the issuance of a Building Permit. (Rule 501) • Pursuant to the Placer County Air Pollution Control District Rule 501, General Permit Requirements, the proposed project may need a permit from the District prior to construction. In general, any engine greater than 50 brake horsepower or any boiler with heat greater than 1,000,000 Btu per hour shall require a permit issued by the District. (Rule 501) • All on-site stationary equipment which is classified as 50 hp or greater shall either obtain a state issued portable equipment permit or a Placer County APCD issued portable equipment permit. (California Portable Equipment Registration Program, Section 2452). • The contractor shall utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators if feasible. • During construction, the contractor shall minimize idling time to a maximum of 5 minutes for all diesel powered equipment. • During construction, traffic speeds on all unpaved surfaces shall be limited to 15 miles per hour or less. **(**Rule 228 / section 401.2)					
MM 4.5-1 Air Quality Measures Implementation of the Air Quality Mitigation Measures listed in Section 4.3 Air Quality would reduce operational and construction-related emissions of criteria air pollutants and precursors, and would also act to reduce GHG emissions associated with project construction and operation. Mitigation Measure 4.4-1 found in the Air Quality section of this EIR, is relevant to impact 4.5-1 because both criteria air pollutant and GHG emissions are frequently associated with combustion byproducts. In addition, the City shall implement the following measures to reduce direct and indirect GHG	The applicants shall submit construction management plans as part of the Grading Permit application. The Public Works Director shall review grading plans for inclusion of these measures prior to issuance of grading permits. The City Code	*Pre-Construction:* Prior to issuance of Grading Permits. Add as note on Improvement Plans and Building Plans	Director of Public Works shall ensure that dust and construction-control measures are implemented.		

emissions associated with the proposed project. Certain measures would already be components of the project (i.e., Specific Plan policies, design guidelines and standards), and/or would be applied consistent with the City's General Plan Policies, addressing GHG emissions and climate change, but are provided here for purposes of completeness. **MM 4.5-2 Additional Measures to Reduce GHG Emissions** For each new development within the project site requiring a discretionary approval (e.g., tentative subdivision map, conditional use permit), the City shall impose mitigation measures that reduce GHG emissions to the extent feasible and to the extent appropriate with respect to the state's progress at the time toward meeting GHG emissions reductions required by the California Global Warming Solutions Act of 2006 (AB 32). The City shall require feasible reduction measures that, in combination with existing and future regulatory measures developed under AB 32, will reduce GHG emissions associated with the operation of developments and supporting infrastructure that are part of the proposed project by 30% from business-as-usual emissions levels projected for 2025, if feasible.	Enforcement Officer shall respond to complaints. In addition, plans will be reviewed by the Placer County Air Pollution Control District for compliance with their rules and regulations.				
MM 4.6- 4: Traffic Noise Attenuation **MM 4.6-4(a):** Masonry walls and/or landscaped berms shall be constructed along the major project-area roadways adjacent to proposed residential uses if acoustical studies warrant sound attenuation, otherwise standard wood fencing is acceptable. Draft EIR Table 4.6-10 data shall be consulted to determine appropriate barrier heights. If the assumptions shown in Table 4.6-10 vary considerably, a detailed analysis of exterior and interior mitigation measures should be conducted when tentative maps become available. **MM 4.6-4(b):** In areas requiring sound attenuation, noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials. Wood is not recommended for construction due to eventual warping and degradation of acoustical performance. **MM 4.6-4c:** Tentative map applications for residential uses located along Fiddyment Road would be required to include an analysis of interior noise levels. The report shall be conducted by a qualified acoustical engineer and shall specify the measures required to achieve compliance with the City of Roseville 45 dB Ldn interior noise level standard.	The developer shall construct walls in locations consistent with the walls exhibit of the Specific Plan, which shall be a minimum of six feet tall per the Draft EIR. The developer shall include wall and/or landscaped berm details as part of Improvement Plans which demonstrate consistency with the design requirements of the measure.	*Pre-Construction:* Prior to issuance of Improvement Plans. Add as note on Improvement Plans and Building Plans	Engineering to review plans for consistency with measure.	An acoustical Study, if conditions or plans deviate from Specific Plan or EIR.	
WMM 4.7-13 Riparian Habitat Policies To protect riparian vegetation within the SOI Amendment Area SVSP and Urban Reserve areas, the following policies shall be implemented: a) The project applicant shall provide for temporary fencing along the top of the bank during construction of those areas of the proposed project adjacent to riparian habitat to discourage access to the riparian habitat by humans and pets. b) The project applicant shall provide for permanent fencing and/or a landscape barrier to discourage access to the riparian habitat by humans and pets. The fencing and/or landscape barrier shall be placed at the top of the bank of the creeks along those portions of the site adjacent to riparian habitat. The proposed recreation trail shall be on the project site side of the fence/landscape barrier. The fencing and/or landscape barrier shall be constructed of wood or other natural materials and shall allow for the viewing of the riparian habitat while discouraging access. c) Interpretive signs and displays shall be posted along the border of the riparian area to educate the public and route access away from sensitive areas. These informative signs will be posted at intervals determined appropriate by the City of Roseville Parks and Recreation Director along the border with information regarding the objectives of creek and riparian habitat protection. Signs should also include information regarding the importance of restricting access to the riparian area by household pets. Such signs will be made of wood or similar natural material, and be maintained by the Applicant. d) Lighting adjacent to riparian buffers should be shielded away from the riparian areas.	The applicants shall design the project to avoid and preserve riparian vegetation.	*Pre-Construction*: Temporary fencing shall be installed prior to construction. Permanent measures shall be shown on Improvement Plans. Add as note on Improvement Plans.	Engineering and Parks	None	
Use Low-Glare Materials for New Development In order to reduce the effects of daytime glare from development of commercial or office uses within the SVSP Area, building developers should make use, when feasible, of low-glare materials. **MM 4.14-3 Avoid Light Spill Over into Curry Creek and Open Space Areas**	Comply with the measure	*Pre-Construction:* Ensure fixtures shown on Improvement Plans and Building Plans comply with the measure.	Engineering and Building	None	

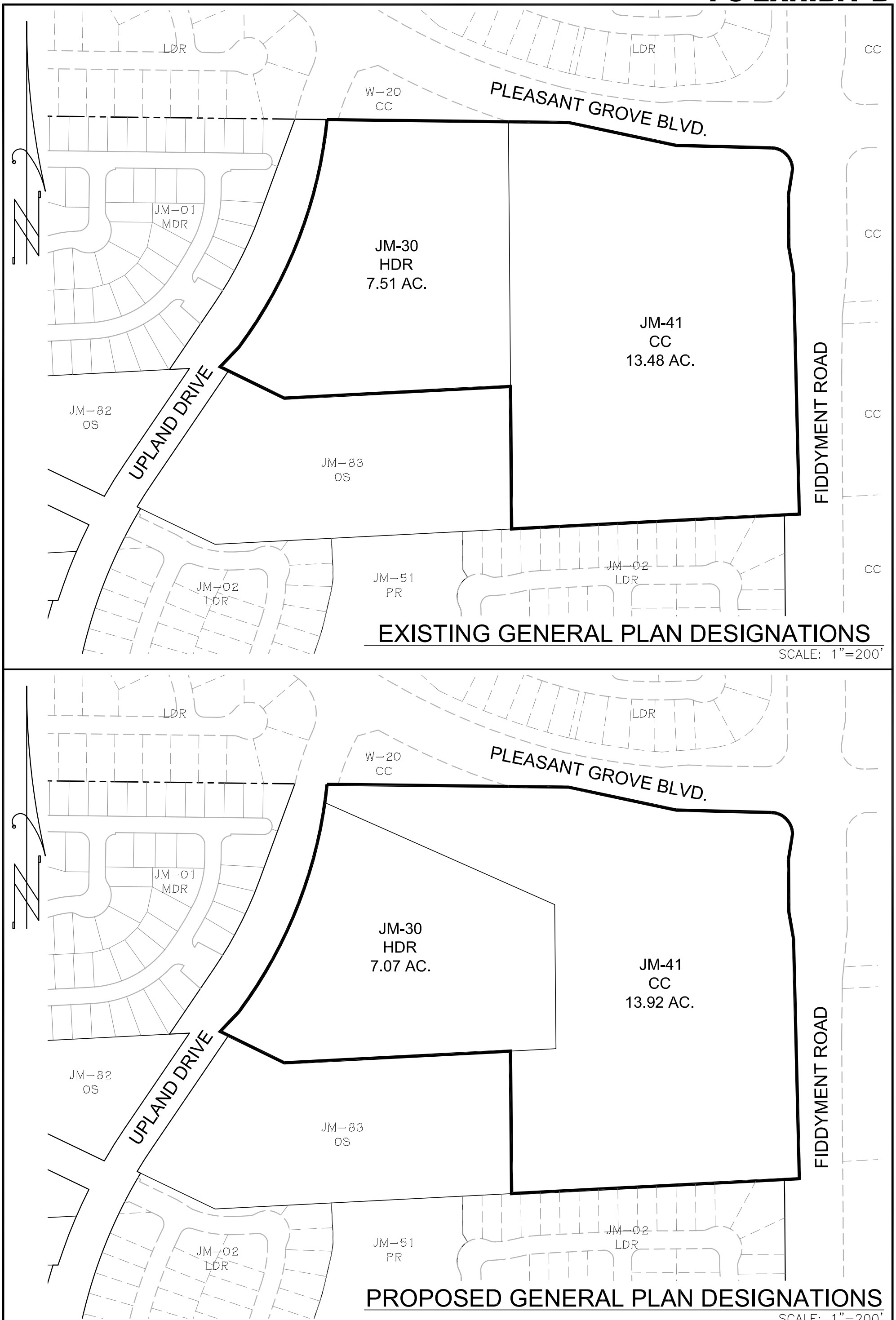
Outdoor lighting shall be placed, designed and directed so as to avoid light spillover into the habitat of Curry Creek and the Open Space Preserve areas located immediately adjacent to the open space, as shown on the Land Use Map as parcels KT-1, KT-40, KT-30, KT-41, DF-1, DF-2, DF-40, CG-1, CG-82m JM-21, JM-3, and JM-4.		Add as note on Improvement Plans and Building Plans			
MM 4.6-1 Construction Noise Reduction **MM 4.6-1(a):** Construction activities shall comply with the requirements of the City of Roseville Noise Ordinance. **MM4.6-1(b):** Locate fixed construction equipment such as compressors and generators as far as possible from sensitive receptors. Shroud or shield all impact tools, and muffle or shield all in-take and exhaust ports on power construction equipment. **MM 4.6-1(c):** Designate a construction disturbance coordinator and conspicuously post the Coordinator's contact information around the project site and in adjacent public spaces. The disturbance coordinator will receive all public complaints about construction noise disturbances, and will be responsible for determining the cause of the complaint, and implementing any feasible measures to be taken to alleviate the problem. **MM 4.6-1(d):** Well drilling shall occur prior to construction of the adjacent subdivision, to the extent feasible. If construction timing for the wells occurs after subdivision construction, then measures to reduce noise shall include; hanging flexible sound control curtains around the drilling apparatus, and the drill rig, to the degree feasible, as determined by the Environmental Utilities Director, if located within 1,000-feet of an occupied residence.	Discuss during pre-construction meeting and comply with the measure.	*Pre-Construction and Construction*: During construction for MM 4.6-1(d), and prior to issuance of Improvement Plans and/or Building Permits for all others. Add as note on Improvement Plans and Building Plans	Engineering staff to discuss this measure during pre-construction meeting and ensure posting has occurred. Environmental Utilities to address well drilling.	None	
MM 4.8-3 Avoid Nesting Sites To ensure that fully protected bird and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat, the project applicant shall implement the following measures: *Raptors* a) When feasible, all tree removal shall occur between August 30th and February 15th to avoid the breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area. b) For Swainson's hawk, if avoidance of tree removal outside the breeding season is not feasible, and a nest is present, the applicants would be required to obtain a 2081 permit from CDFG to mitigate for potential "take" under CESA. If no nesting is occurring, a take permit would not be required. c) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between February 15th and August 30th, all trees and potential burrowing owl habitat within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests or burrows by a qualified biologist no more than 30-days prior to disturbance. If active raptor nests or burrows are found, and the site is within 350-feet of potential construction activity, a highly visible temporary fence shall be erected around the tree or burrow(s) at a distance of up to 350-feet, depending on the species, from the edge of the canopy to prevent construction disturbance and intrusions on the nest area. d) Preconstruction and non-breeding season exclusion measures shall be developed in consultation with CDFG, and shall preclude burrowing owl occupation of the portions of the project site subject to disturbance such as grading. Burrowing owls may be passively excluded from burrows in construction areas by placing one-way doors in the burrows according to CDFG protocol. The one-way doors must be in place for a minimum of three days. All burrows that may be occupied by burrowing owls regardless of whether they exhibit signs of occupation must be cleared with the one way doors. Burrows that have been cleared through the use of the one-way doors shall then be closed or backfilled to prevent owls from entering the burrow. e) No construction vehicles shall be permitted within restricted areas (i.e., raptor protection zones) unless directly related to the management or protection of the legally protected species. f) If a legally protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30th or until the adults and young of the year are no longer dependent on the nest site as determined by a qualified biologist. *Black Rails and Tri-colored Blackbirds* Prior to earth moving that would disturb marsh habitat, a qualified biologist shall conduct surveys to determine the presence of the California black rail. If either of these species is found, all earth moving within 250 feet shall stop and measures, including establishing nest protection buffers along both sides of Curry Creek during the nesting season (generally February 1 through August 31st) shall	Results of preconstruction surveys shall be submitted prior to the issuance of a grading permit or Improvement Plans. Applicable construction restrictions shall be reflected within plans. The applicants shall prepare annual reports on the status and success of mitigation and shall submit these reports to USFWS and CDFG. The applicants shall coordinate with USFWS and CDFG to modify as necessary any mitigation plans in an effort to attain mitigation success.	*Pre-Construction and Construction*: Surveys required prior to construction. If surveys are positive for birds, then remainder of mitigation steps are required prior to construction. Add as note on Improvement Plans.	Engineering	Nesting bird surveys	

be implemented. *Rookeries* No heron rookeries are present within the plan area. Prior to earthmoving that would disturb marsh habitat or tree removal of the eucalyptus grove, pre-construction surveys should be conducted to verify that no rookeries have been established. If rookeries are present all earth moving within 250-feet shall stop, during the breeding season.					
MM 4.13-1 Implementation of construction activity stormwater protection standards Prior to the issuance of a City grading permit and the commencement of construction activities, compliance with the State's General Construction permit, the City of Roseville's Construction Standards, and the City's Stormwater BMP Guidance Manual will be met. This includes the creation of a Storm Water Pollution Prevention Plan (SWPPP) that will identify the site, the location of sensitive habitats or watercourses, drainage areas, discharge locations, soil disturbance areas, and the locations of all runoff, erosion control, and sediment control Best Management Practices (BMPs). On-going monitoring and adjustments to the SWPPP will occur when needed to address changes in the field as construction activities evolve.	The developer shall create a SWPPP, submit it to the City, and comply with its provisions.	*Pre-Construction and Construction*: Submit SWPPP and ensure that BMPs remain in place during construction. Add as note on Improvement Plans and Building Plans.	Engineering	SWPPP	
MM 4.9-1 Cease Work and Consult with Qualified Archaeologist Should any cultural resources, such as structural features, any amount of bone or shell, artifacts, human remains, or architectural remains, be encountered during any subsurface development activities, work shall be suspended within 100-feet of the find. The City of Roseville Planning and Public Works Staff shall be immediately notified. At that time, the City of Roseville shall coordinate any necessary investigation of the site with qualified archaeologists as needed, to assess the resource (i.e., whether it is an "historical resource" or a "unique archaeological resource") and provide proper management recommendations should potential impacts to the resources be found to be significant. Possible management recommendations for important resources could include resource avoidance or, where avoidance is infeasible in light of project design or layout or is unnecessary to avoid significant effects, data recovery excavations. The contractor shall implement any measures deemed feasible and necessary by City staff, in consultation with the archaeologists, to be to avoid or minimize significant effects to the cultural resources. In addition, pursuant to Section 5097.98 or the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.	This condition shall be reflected in all construction and building plans, and construction site workers shall be advised by the site manager of this measure.	*Construction*: Measure applies if resources are discovered during construction. Add as note on Improvement Plans and Building Plans.	Engineering and Building	None	
Mitigation Measure 4.9-3 Cease Work and Consult with Qualified Paleontologist Should any evidence of paleontological resources (e.g. fossils) be encountered during grading or excavation, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with a qualified paleontologist to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance, if feasible in light of project design or layout, or data recovery excavations. The contractor shall implement any measures deemed feasible and necessary by City staff in consultation with the paleontologist for the protection of the paleontological resources.	This condition shall be reflected in all construction and building plans, and construction site workers shall be advised by the site manager of this measure.	*Construction*: Measure applies if resources are discovered during construction. Add as note on Improvement Plans and Building Plans.	Engineering and Building	None	
MM 4.10-1 Identify Potential Hazardous Materials (soil contamination, tank or well sites, lead based paint and/or asbestos) Prior to site development in the SVSP, recommended testing and remediation, if needed shall occur. Groundwater wells shall be properly closed. If evidence of soil contamination, septic tanks, or other underground storage tanks are encountered in previously unidentified locations in the SVSP area, work shall cease until the area can be tested, and if necessary remediated and/or properly removed or closed. Remediation activities could include removal of contaminated soil, and/or onsite treatment. As part of the process, the City shall ensure that any necessary investigation and/or remediation activities are coordinated with the Roseville Fire Department, Placer County Division of Environmental Health, and if needed, other appropriate federal, state and local agencies. Once a site is remediated, construction can continue.	The applicants shall be responsible for conducting soil testing and/or recommendation of the Phase I environmental site assessments, if conditions are encountered which warrant such studies.	*Construction*: Applies if conditions found which warrant assessment (e.g. stained soils, underground tanks). Add as note on Improvement Plans.	Engineering and Fire	Phase I environmental assessment, if conditions warrant	
MM 4.12.4-2 Divert Construction Debris The applicants shall ensure a 50% reduction in the construction waste stream generated from development within the SVSP. In Developer contracts with construction contractors and their sub-contractors, the Developer shall require that construction waste be reduced by 50%. The Developer shall further require that contractors and sub-contractors submit records of diversion and disposal to	Comply with the measure	*Construction:* Contractor to ensure diversion occurs during construction. Add as note on Improvement Plans and Building Plans.	Environmental Utilities	Records of diversion	

the City's Environmental Utilities Department in order to verify compliance with this requirement.					

NOTE: This table is provided as a courtesy to the developer, to highlight the text of measures which are required to be placed on Improvement Plans and/or Building Plans. Refer to the applicable environmental document (e.g. Environmental Impact Report) for a full list of measures, and for context. Other measures may be applicable, but are not included here because they have already been completed or they are addressed via other mechanisms (e.g. development fees).

PC EXHIBIT B



BAKER-WILLIAMS ENGINEERING GROUP
Engineering / Surveying / Land Planning / Entitlement Processing / GPS Services
6020 Rutland Drive, Suite 19 ~ Carmichael CA 95608
(916) 331-4336 ~ fax (916) 331-4430 ~ office@bwengineers.com

SCALE: 1"=200'

JOB #: 21-06-017

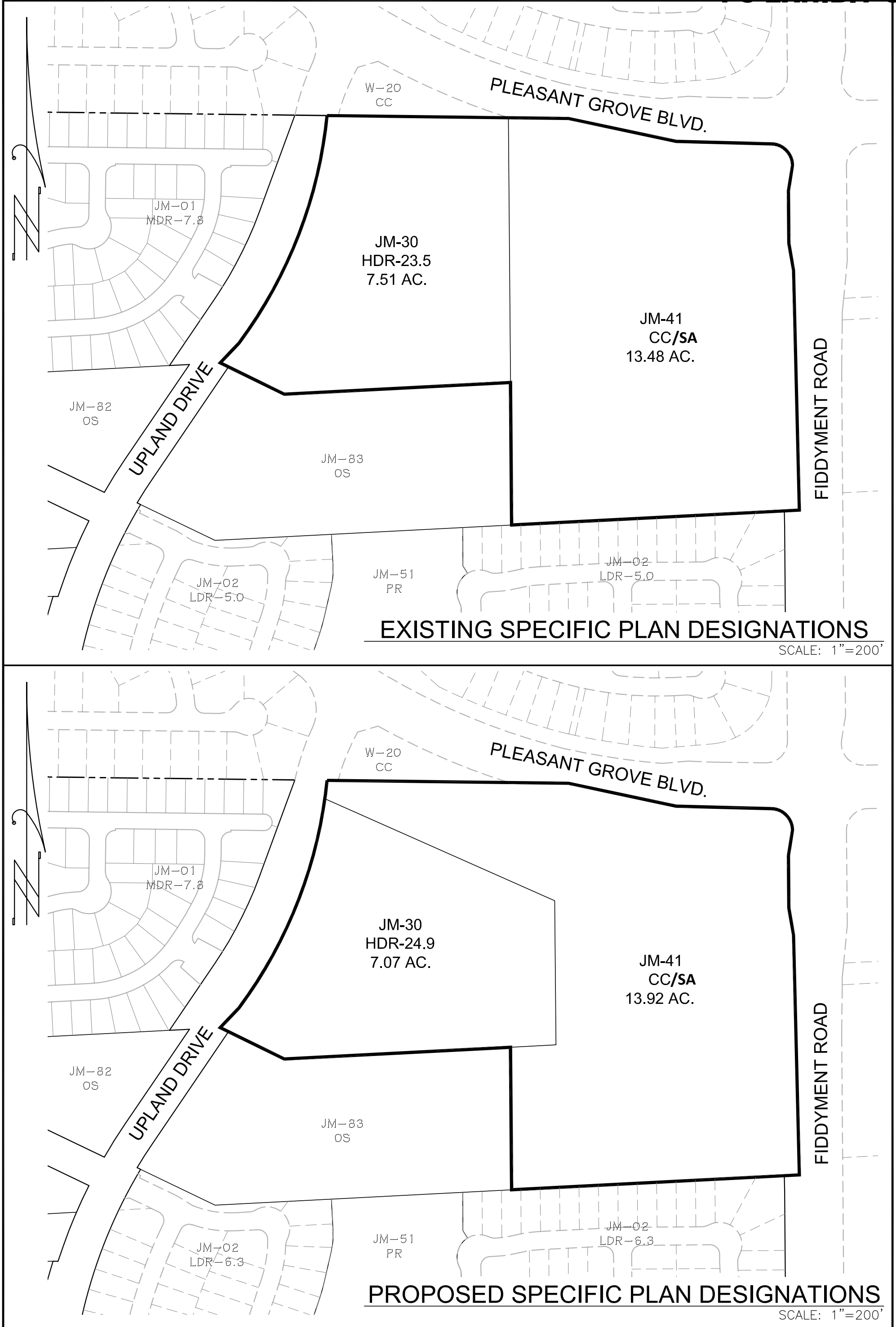
DATE: FEB., 2022

GENERAL PLAN AMENDMENT EXHIBIT

SVSP PARCELS JM-30 & JM-41

CITY of ROSEVILLE, CALIFORNIA

PC EXHIBIT C



EXISTING SPECIFIC PLAN DESIGNATIONS

SCALE: 1"=200'

PROPOSED SPECIFIC PLAN DESIGNATIONS

SCALE: 1"=200'

BAKER-WILLIAMS ENGINEERING GROUP
Engineering / Surveying / Land Planning / Entitlement Processing / GPS Services
6020 Rutland Drive, Suite 19 ~ Carmichael CA 95608
(916) 331-4336 ~ fax (916) 331-4430 ~ office@bwengineers.com

SCALE: 1"=200'

JOB #: 21-06-017

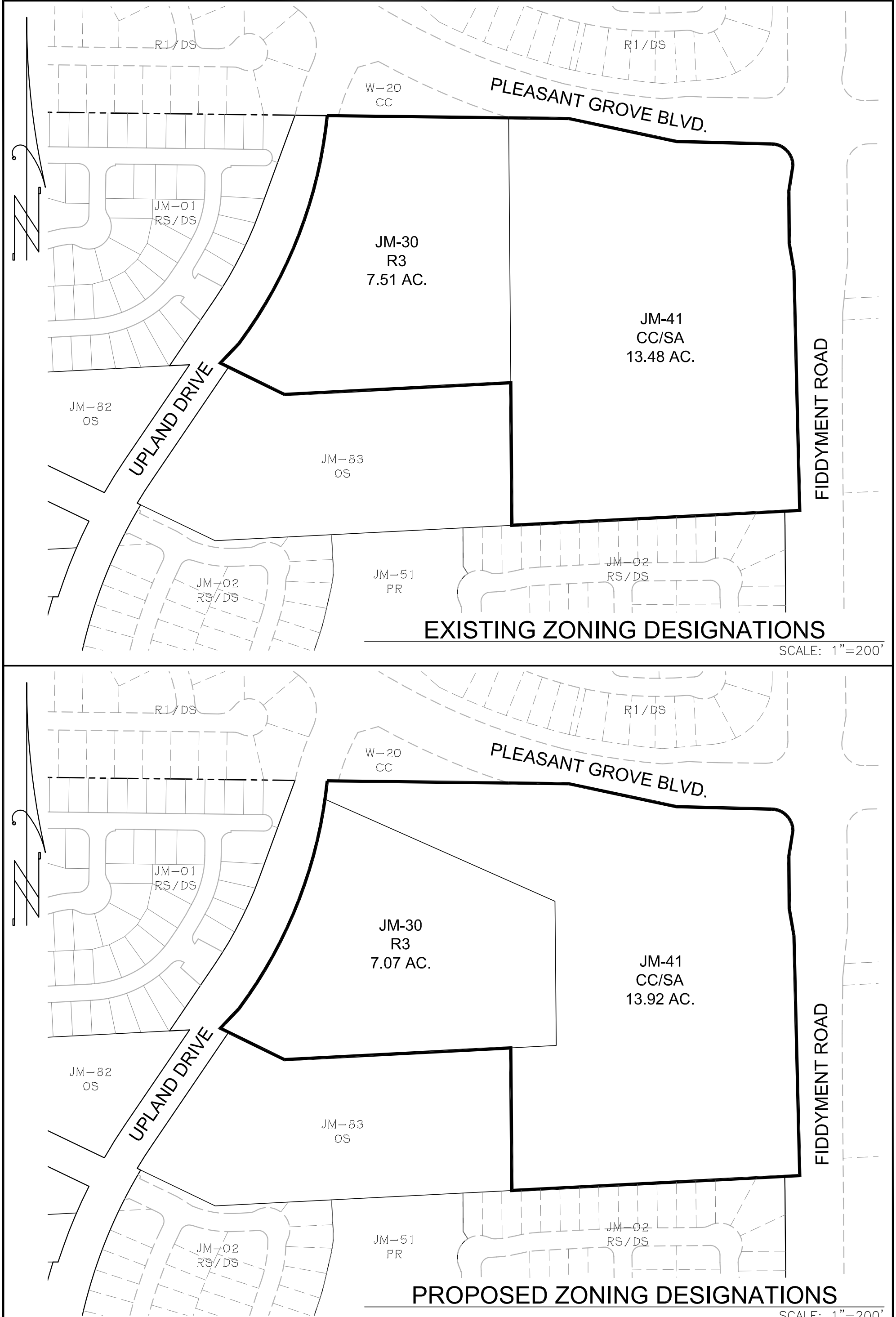
DATE: FEB., 2022

SPECIFIC PLAN AMENDMENT EXHIBIT

SVSP PARCELS JM-30 & JM-41

CITY of ROSEVILLE, CALIFORNIA

PC EXHIBIT D



EXISTING ZONING DESIGNATIONS

SCALE: 1"=200'

PROPOSED ZONING DESIGNATIONS

SCALE: 1"=200'

BAKER-WILLIAMS ENGINEERING GROUP
Engineering / Surveying / Land Planning / Entitlement Processing / GPS Services
6020 Rutland Drive, Suite 19 ~ Carmichael CA 95608
(916) 331-4336 ~ fax (916) 331-4430 ~ office@bwengineers.com

SCALE: 1"=200'

JOB #: 21-06-017

DATE: FEB., 2022

REZONE EXHIBIT

SVSP PARCELS JM-30 & JM-41

CITY of ROSEVILLE, CALIFORNIA

SIERRA VISTA LAND USE PLAN

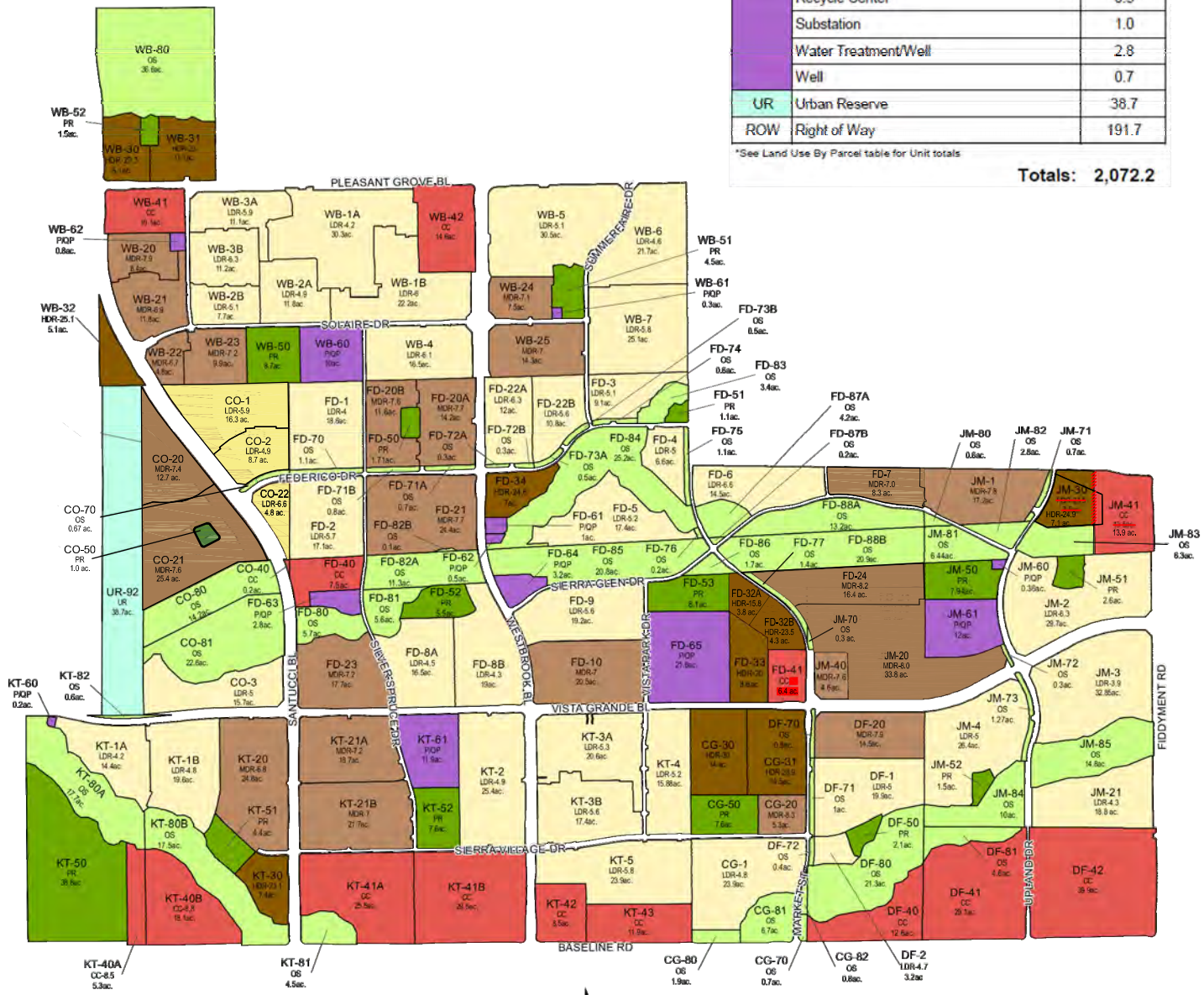
PC EXHIBIT E

Figure 4-1

	Land Use Designation	Acres	
LDR	Residential	590.2	
	Residential - Age Restricted	94.3	
MDR	Residential	348.6	
HDR	Residential	~~91.3~~	90.9
CC	Business Professional and Commercial	25.4	
	Commercial	~~183.9~~	184.3
	Commercial Mixed Use	23.4	
OS	Open Space	302.0	
	Open Space/Paseo	13.4	
PR	Park	104.6	
P/QP	Elementary School	33.9	
	Fire Station	3.2	
	Lift Station	1.0	
	Middle School	21.6	
	Recycle Center	0.5	
	Substation	1.0	
	Water Treatment/Well	2.8	
	Well	0.7	
UR	Urban Reserve	38.7	
ROW	Right of Way	191.7	

*See Land Use By Parcel table for Unit totals

Totals: 2,072.2



Last Updated: ~~April 13, 2022~~
MAY 13, 2022

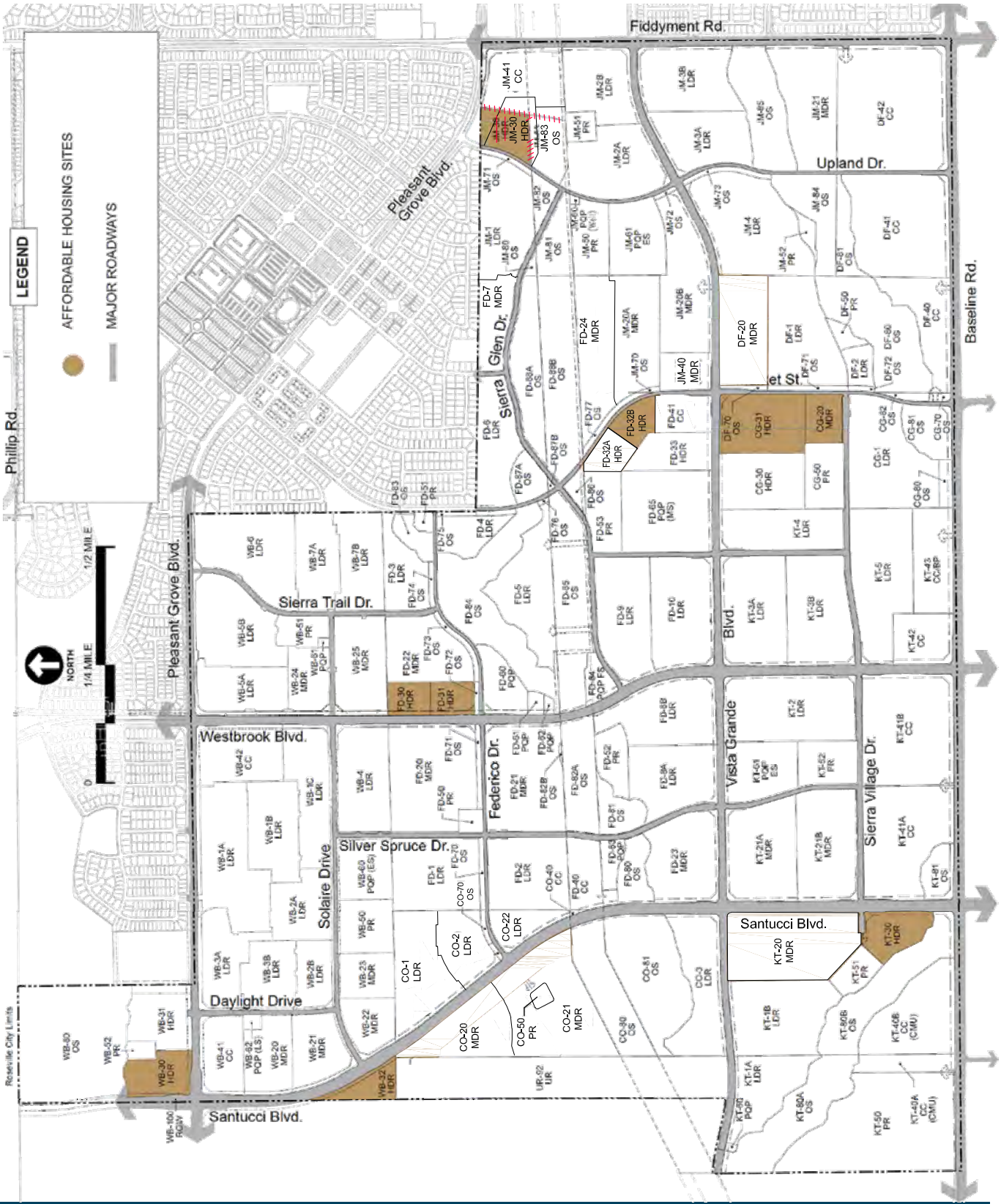


Figure 5-1: Affordable Housing Sites

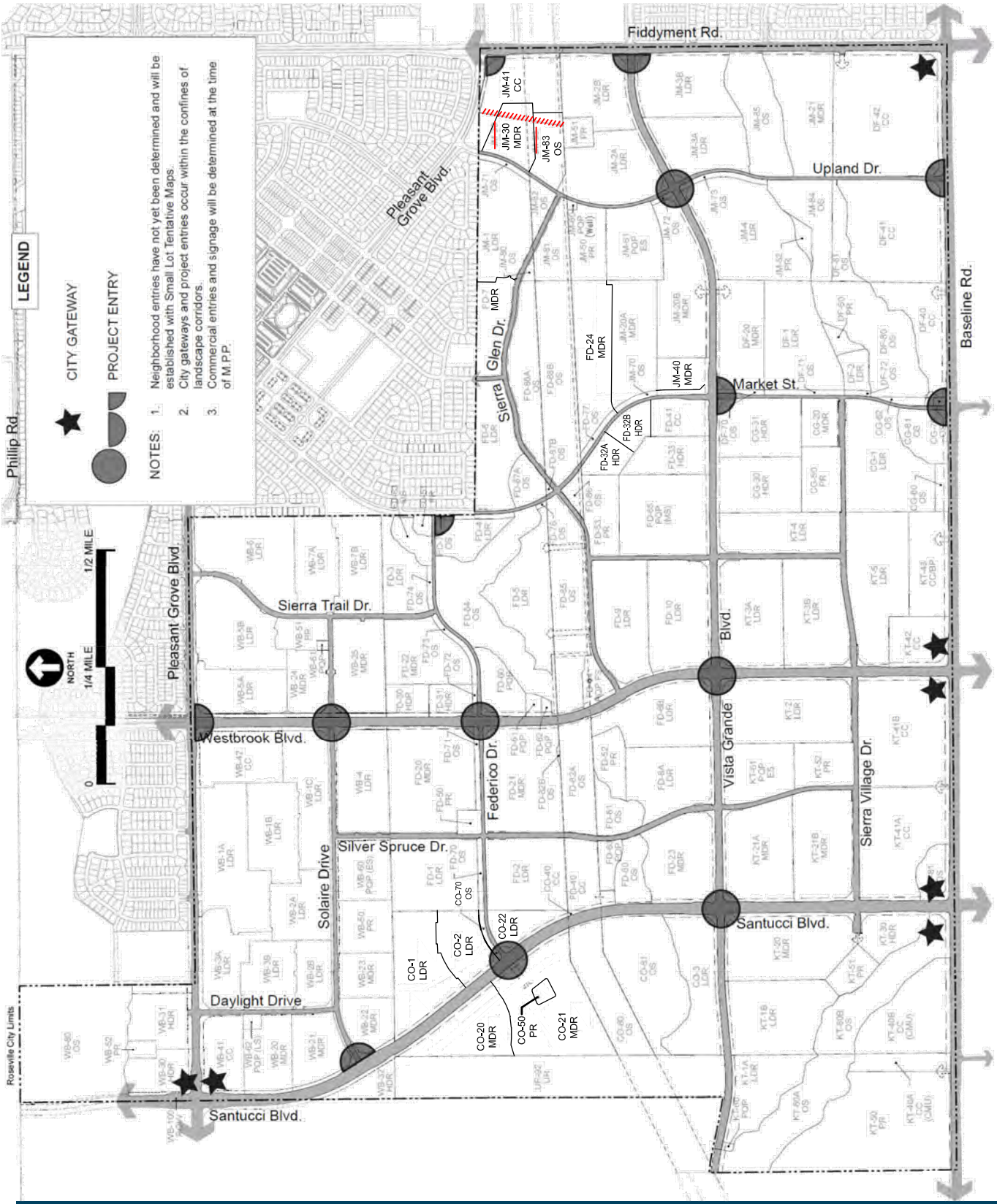


Figure B-2: Entry Feature Locations

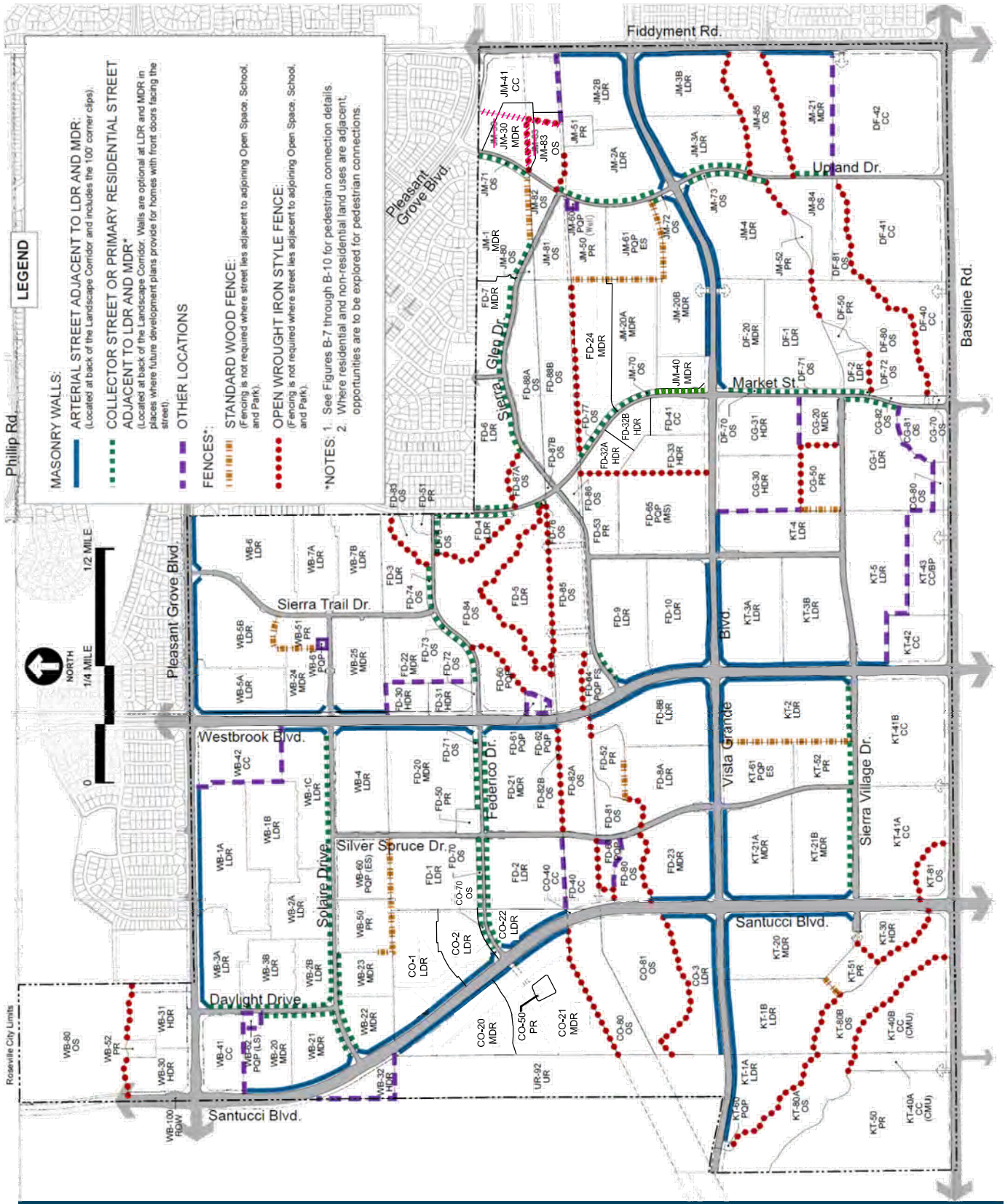
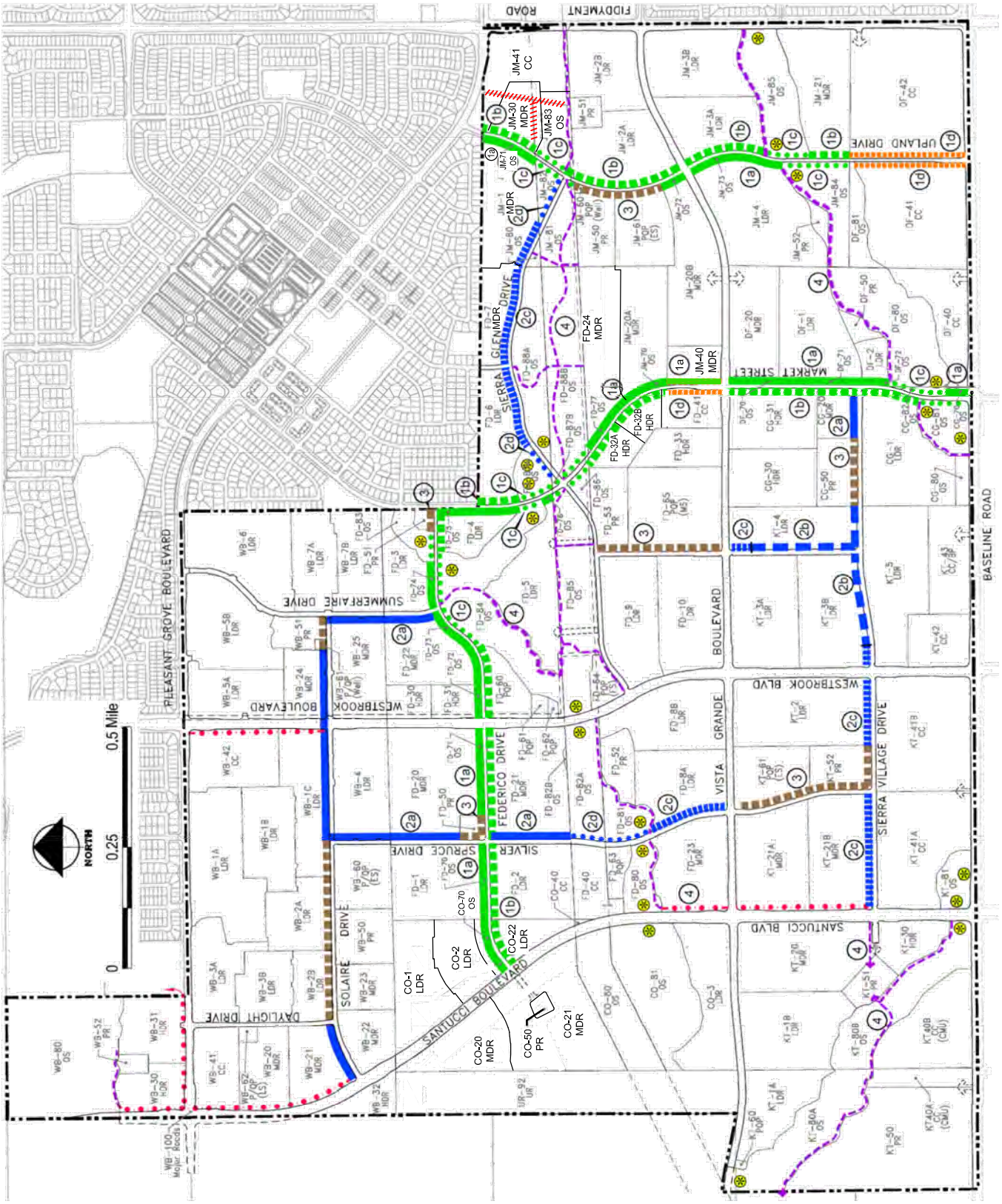


Figure B-3: Wall and Fence Locations



Note: Bikeway alignments in open space areas are conceptual and may be refined as detention facilities are designed.

Figure B-5: Paseo Plan

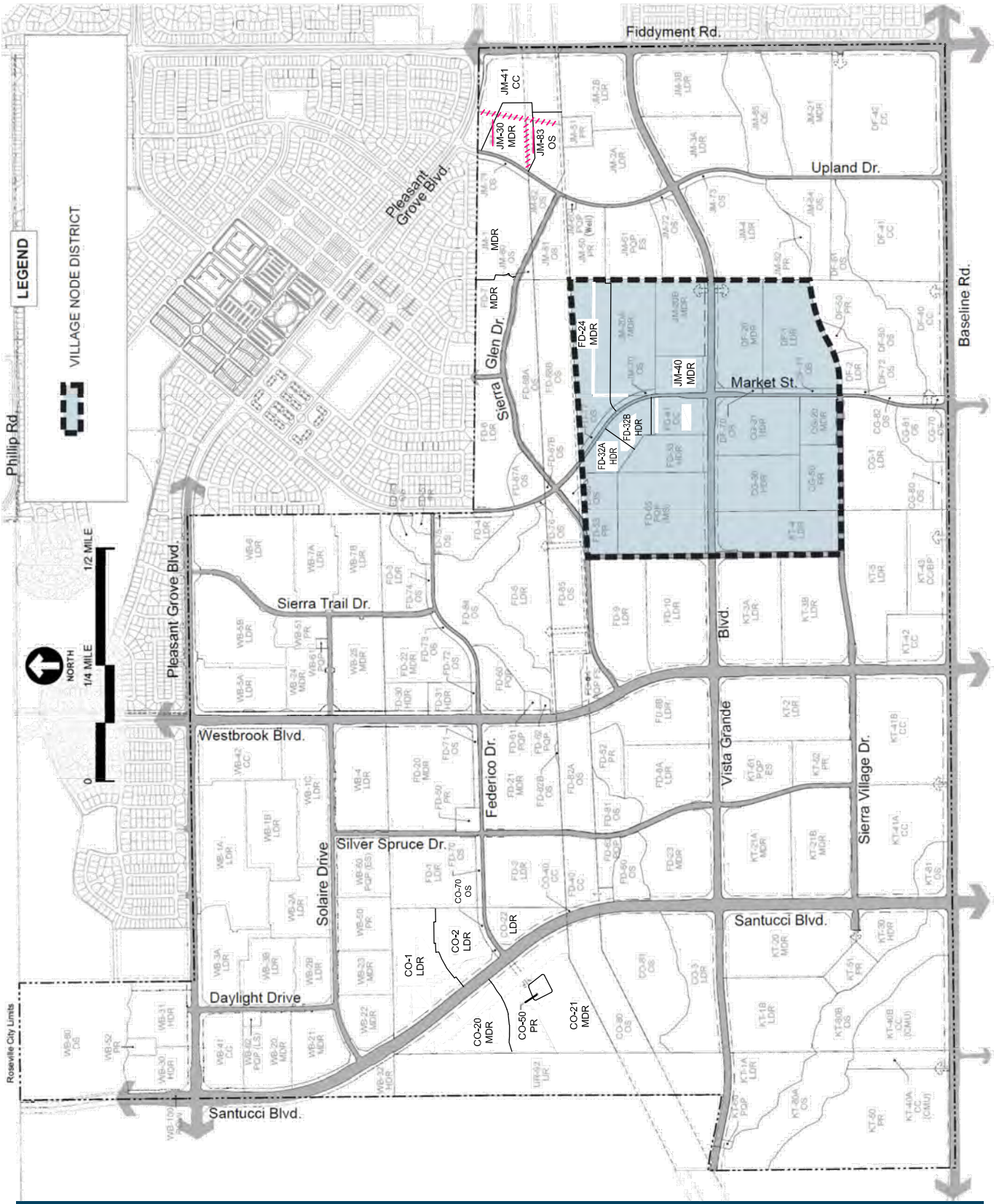


Figure B-22: Village Node District

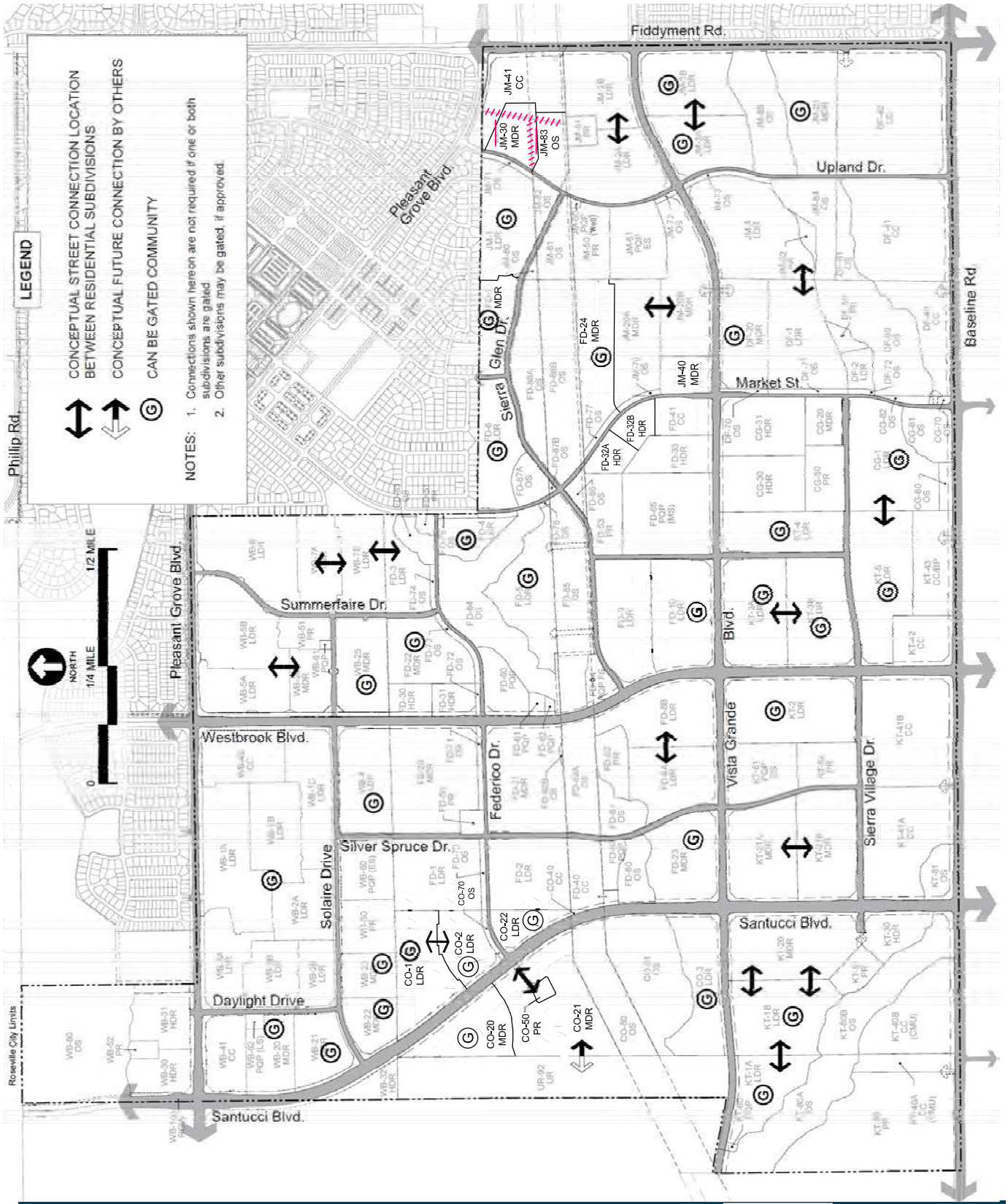


Figure B-25: Neighborhood Connectivity and Gated Subdivisions - updated ~~March 2022~~ May 2022

Table 4-1: Plan Area Land Use Summary

Land Use Designation		Applied Zoning Districts	Acres	% of Total Acres	Units	% of Total Units
Residential Neighborhoods						
LDR	Low Density Residential	RS/DS	585.8	30.7%	2,972	35.1%
LDR	LDR – Age Restricted	RS/DS	94.3	4.6%	493	5.7%
MDR	Medium Density Residential	RS/DS	353.7	14.7%	2,654	31.3%
HDR	High Density Residential	R3	~~91.3~~ 90.9	4.4%	2,351	27.8%
Sub-totals		1,124.7	**~~1,125.8~~**	**54.3%**	**8,470**	**99.9%**
Commercial and Employment						
CC	Community Commercial (Commercial Mixed Use)	CMU/SA	22.7	1.1%	209	2.4%
CC/BP	Community Commercial/ Business Professional (Mixed Use)	CC/SA	25.4	1.2%	--	--
CC	Community Commercial	CC & GC	~~183.9~~ 184.3	8.9%	--	--
Sub-totals		233.4	**~~232.0~~**	**11.2%**	**209**	**2.4%**
Open Space/Public						
P/QP	Public/Quasi-Public	P/QP	64.7	3.1%	--	--
PR	Parks & Recreation	PR	104.6	5.0%	--	--
OS	Open Space	OS	302.0	14.6%	--	--
OS	Paseo (60'-wide)	OS	13.4	0.6%	--	--
UR	Urban Reserve	UR	38.7	1.9%	--	--
Sub-totals			**523.4**	**25.3%**	**--**	**--**
Right of Way/ Landscape Corridor			191.6	9.2%	--	--
TOTAL			**2072.2 ac**	**100%**	**8,679 du**	**100%**

Note: See Table 7-4 for net Paseo total acres Last Updated ~~March 2022~~ May 2022

Table 4-2: Land Use, Zoning, & Acreage by Parcel

PARCEL	GENERAL PLAN LAND USE (Specific Plan Land Use)	ZONING	ACRES	ALLOCATED UNITS	DENSITY
CG-1	LDR (Residential)	RS/DS	23.86	115	4.9
CG-20	MDR (Residential)	RS/DS	5.34	44	8.3
CG-30	HDR (Residential)	R3	13.99	420	30.0
CG-31	HDR (Residential)	R3	14.54	420	29.0
CG-50	PR (Park)	PR	7.60		
CG-70	OS (Open Space/Paseo)	OS	0.67		
CG-80	OS (Open Space)	OS	1.86		
CG-81	OS (Open Space)	OS	6.70		
CG-82	OS (Open Space)	OS	0.78		
	Sub-totals (CGB)		**75.34**	**999**	
CO-1	LDR (Residential)	RS/DS	16.30	87	5.3
CO-2	LDR (Residential)	RS/DS	8.77	43	4.9
CO-3	LDR (Residential)	RS/DS	15.66	67	4.3
CO-20	MDR (Residential)	RS/DS	12.71	94	7.4
CO-21	MDR (Residential)	RS/DS	25.39	193	7.6
CO-22	LDR (Residential)	RS/DS	4.81	32	6.6
CO-40	CC (Commercial)	CC	0.16		
CO-50	PR (Park)	PR	1.00		
CO-70	OS (Open Space/Paseo)	OS	0.26		
CO-71	OS (Open Space/Paseo)	OS	0.52		
CO-80	OS (Open Space)	OS	14.22		
CO-81	OS (Open Space)	OS	22.94		
	Sub-totals (Conley)		**122.88**	**516**	
DF-1	LDR (Residential)	RS/DS	19.90	100	5.0
DF-2	LDR (Residential)	RS/DS	3.16	15	4.7
DF-20	MDR (Residential)	RS/DS	14.50	115	7.9
DF-40	CC (Commercial)	GC	12.64		
DF-41	CC (Commercial)	GC	29.14		
DF-42	CC (Commercial)	GC	39.90		
DF-50	PR (Park)	PR	2.08		
DF-70	OS (Open Space/Paseo)	OS	0.52		
DF-71	OS (Open Space/Paseo)	OS	1.00		
DF-72	OS (Open Space/Paseo)	OS	0.38		
DF-80	OS (Open Space)	OS	21.31		
DF-81	OS (Open Space)	OS	4.62		
	Sub-totals (DF Properties)		**149.15**	**230**	

Table 4-2: Land Use, Zoning, & Acreage by Parcel

PARCEL	GENERAL PLAN LAND USE (Specific Plan Land Use)	ZONING	ACRES	ALLOCATED UNITS	DENSITY
FD-1	LDR (Residential)	RS/DS	18.60	74	4.0
FD-2	LDR (Residential)	RS/DS	17.12	120	7.0
FD-3	LDR (Residential)	RS/DS	9.14	46	5.0
FD-4	LDR (Residential)	RS/DS	6.56	33	5.0
FD-5	LDR (Residential)	RS/DS	17.36	67	3.9
FD-6	LDR (Residential)	RS/DS	14.53	95	6.5
FD-7	MDR (Residential)	RS/DS	8.34	58	7.0
FD-8A	LDR (Residential)	RS/DS	16.51	75	4,5

Table 4-2: Land Use, Zoning, & Acreage by Parcel (cont.)

PARCEL	GENERAL PLAN LAND USE (Specific Plan Land Use)	ZONING	ACRES	ALLOCATED UNITS	DENSITY
FD-8B	LDR (Residential)	RS/DS	18.96	81	4.3
FD-9	LDR (Residential)	RS/DS	19.24	107	5.6
FD-10	MDR (Residential)	RS/DS	20.46	143	7.0
FD-20A	MDR (Residential)	RS/DS	14.21	110	7.6
FD-20B	MDR (Residential)	RS/DS	11.56	88	7.6
FD-21	MDR (Residential)	RS/DS	24.44	187	7.7
FD-22A	LDR (Residential)	RS/DS	11.97	76	6.3
FD-22B	LDR (Residential)	RS/DS	10.76	60	5.6
FD-23	MDR (Residential)	RS/DS	17.66	127	7.2
FD-24	MDR (Residential)	RS/DS	16.42	135	8.2
FD-32A	HDR (Residential)	R3	3.81	78	20.5
FD-32B	HDR (Residential)	R3	4.23	116	27.4
FD-33	HDR (Residential)	R3	8.59	172	20.0
FD-34	HDR (Residential)	R3	7.04	172	24.4
FD-40	CC (Commercial)	CC	7.55		
FD-41	CC (Commercial)	CMU/SA	5.71		
FD-50	PR (Park)	PR	1.71		
FD-51	PR (Park)	PR	1.12		
FD-52	PR (Park)	PR	5.51		
FD-53	PR (Park)	PR	8.07		
FD-61	Public/Quasi-Public (Electrical Substation)	P/QP	0.99		
FD-62	Public/Quasi-Public (Recycle Center)	P/QP	0.50		
FD-63	Public/Quasi-Public (Water Treatment/Well)	P/QP	2.83		
FD-64	Public/Quasi-Public (Fire Station)	P/QP	3.19		
FD-65	Public/Quasi-Public (Middle School)	P/QP	21.59		
FD-70	OS (Open Space/Paseo)	OS	1.13		
FD-71A	OS (Open Space/Paseo)	OS	0.70		
FD-71B	OS (Open Space/Paseo)	OS	0.82		
FD-72A	OS (Open Space/Paseo)	OS	0.25		
FD-72B	OS (Open Space/Paseo)	OS	0.27		
FD-73A	OS (Open Space/Paseo)	OS	0.51		
FD-73B	OS (Open Space/Paseo)	OS	0.49		
FD-74	OS (Open Space/Paseo)	OS	0.65		
FD-75	OS (Open Space/Paseo)	OS	1.14		
FD-76	OS (Open Space/Paseo)	OS	0.15		
FD-77	OS (Open Space/Paseo)	OS	1.35		
FD-80	OS (Open Space)	OS	5.71		
FD-81	OS (Open Space)	OS	5.57		
FD-82A	OS (Open Space)	OS	11.33		
FD-82B	OS (Open Space)	OS	0.14		
FD-83	OS (Open Space)	OS	3.39		
FD-84	OS (Open Space)	OS	25.24		
FD-85	OS (Open Space)	OS	20.80		
FD-86	OS (Open Space)	OS	1.68		
FD-87A	OS (Open Space)	OS	4.15		
FD-87B	OS (Open Space)	OS	0.20		
FD-88A	OS (Open Space)	OS	13.17		
FD-88B	OS (Open Space)	OS	20.89		
	Sub-totals (Federico)		**478.34**	**2,220**	

Table 4-2: Land Use, Zoning, & Acreage by Parcel (cont.)

PARCEL	GENERAL PLAN LAND USE (Specific Plan Land Use)	ZONING	ACRES	ALLOCATED UNITS	DENSITY
JM-1	MDR (Residential)	RS/DS	17.07	134	7.9
JM-2	LDR (Residential)	RS/DS	29.70	187	6.3
JM-3	LDR (Residential)	RS/DS	30.20	127	4.2
JM-4	LDR (Residential)	RS/DS	26.40	132	5.0
JM-20	MDR (Residential)	RS/DS	33.76	271	8.0
JM-21	LDR (Residential)	RS/DS	18.80	80	4.3
JM-30	HDR (Residential)	R3	~~7.51~~ 7.07	176	~~23.5~~ 24.9
JM-40	MDR (Residential)	RS/DS	4.57	35	7.6
JM-41	CC (Commercial/Business Professional)	CC/SA	~~13.50~~ 13.92		
JM-50	PR (Park)	PR	7.94		
JM-51	PR (Park)	PR	2.59		
JM-52	PR (Park)	PR	1.50		
JM-60	Public/Quasi-Public (Well)	P/QP	0.36		
JM-61	Public/Quasi-Public (Elementary School)	P/QP	12.00		
JM-70	OS (Open Space/Paseo)	OS	0.26		
JM-71	OS (Open Space/Paseo)	OS	0.7		
JM-72	OS (Open Space/Paseo)	OS	0.25		
JM-73	OS (Open Space/Paseo)	OS	1.27		
JM-80	OS (Open Space)	OS	0.63		
JM-81	OS (Open Space)	OS	6.44		
JM-82	OS (Open Space)	OS	2.80		
JM-83	OS (Open Space)	OS	6.27		
JM-84	OS (Open Space)	OS	10.40		
JM-85	OS (Open Space)	OS	14.80		
	Sub-totals (Mourier Investments LLC)		**249.72**	**1,142**	
KT-1A	LDR (Residential)	RS/DS	14.35	60	4.2
KT-1B	LDR (Residential)	RS/DS	19.60	95	4.8
KT-2	LDR (Residential)	RS/DS	25.37	125	4.9
KT-3A	LDR (Residential)	RS/DS	20.60	110	5.3
KT-3B	LDR (Residential)	RS/DS	17.40	97	5.6
KT-4	LDR (Residential)	RS/DS	15.89	82	5.2
KT-5	LDR (Residential)	RS/DS	23.93	140	5.8
KT-20	MDR (Residential)	RS/DS	24.62	167	6.8
KT-21A	MDR (Residential)	RS/DS	18.68	135	7.2
KT-21B	MDR (Residential)	RS/DS	21.66	152	7.0
KT-30	HDR (Residential)	R3	7.40	171	23.1
KT-40A	CC (Commercial Mixed Use)	CMU/SA	5.39	46	8.5
KT-40B	CC (Commercial Mixed Use)	CMU/SA	18.10	163	8.8
KT-41A	CC (Commercial)	GC	25.52		
KT-41B	CC (Commercial)	GC	29.52		
KT-42	CC (Commercial)	GC	8.45		
KT-43	Commercial/Business Professional	CC/SA	11.91		
KT-50	PR (Park)	PR	38.80		
KT-51	PR (Park)	PR	4.36		
KT-52	PR (Park)	PR	7.61		
KT-60	Public/Quasi-Public (Sewer Lift Station)	P/QP	0.22		
KT-61	Public/Quasi-Public (Elementary School)	P/QP	11.94		
KT-80A	OS (Open Space)	OS	17.68		
KT-80B	OS (Open Space)	OS	17.47		
KT-81	OS (Open Space)	OS	4.54		
KT-82	OS (Open Space)	OS	0.61		
	Sub-totals (KT Development)		**411.62**	**1,543**	

Table 4-2: Land Use, Zoning, & Acreage by Parcel (cont.)

PARCEL	GENERAL PLAN LAND USE (Specific Plan Land Use)	ZONING	ACRES	ALLOCATED UNITS	DENSITY
UR-92	Urban Reserve	UR	38.72		
	Sub-totals (Urban Reserve)		**38.72**	**0**	
WB-1A	LDR (Residential – Age-Restricted)	RS/DS	30.30	126	4.2
WB-1B	LDR (Residential – Age-Restricted)	RS/DS	22.20	133	6.0
WB-2A	LDR (Residential – Age-Restricted)	RS/DS	11.81	58	4.9
WB-2B	LDR (Residential – Age-Restricted)	RS/DS	7.67	39	5.1
WB-3A	LDR (Residential – Age-Restricted)	RS/DS	11.10	66	5.9
WB-3B	LDR (Residential – Age-Restricted)	RS/DS	11.23	71	6.3
WB-4	LDR (Residential)	RS/DS	16.50	100	6.1
WB-5	LDR (Residential)	RS/DS	30.50	157	5.1
WB-6	LDR (Residential)	RS/DS	21.70	103	4.7
WB-7	LDR (Residential)	RS/DS	25.14	145	5.8
WB-20	MDR (Residential)	RS/DS	8.88	66	7.9
WB-21	MDR (Residential)	RS/DS	11.80	81	6.9
WB-22	MDR (Residential)	RS/DS	4.80	32	6.7
WB-23	MDR (Residential)	RS/DS	9.88	71	7.3
WB-24	MDR (Residential)	RS/DS	7.50	53	7.1
WB-25	MDR (Residential)	RS/DS	14.30	100	7.0
WB-30	HDR (Residential)	R3	8.06	237	29.4
WB-31	HDR (Residential)	R3	11.10	293	26.4
WB-32	HDR (Residential)	R3	5.11	128	25.0
WB-41	MDR (Residential)	RS/DS	8.5	63	7.4
WB-42	CC (Commercial)	CC	14.55		
WB-50	PR (Park)	PR	8.74		
WB-51	PR (Park)	PR	4.47		
WB-52	PR (Park)	PR	1.50		
WB-60	Public/Quasi-Public (Elementary School)	P/QP	10.00		
WB-61	Public/Quasi-Public (Well)	P/QP	0.31		
WB-62	Public/Quasi-Public (Lift Station)	P/QP	0.80		
WB-80	OS (Open Space)	OS	36.58		
	Sub-totals (Westbrook)		**365.64**	**2,029**	
ROW	Right of Way/Landscape Corridors		193.82		
	Sub-totals (ROW)		**193.82**	**0**	
	Total		**2,072.16**	**8,679**	

Table Updated ~~March 2022~~ May 2022
(GIS acreages revised January 2021)

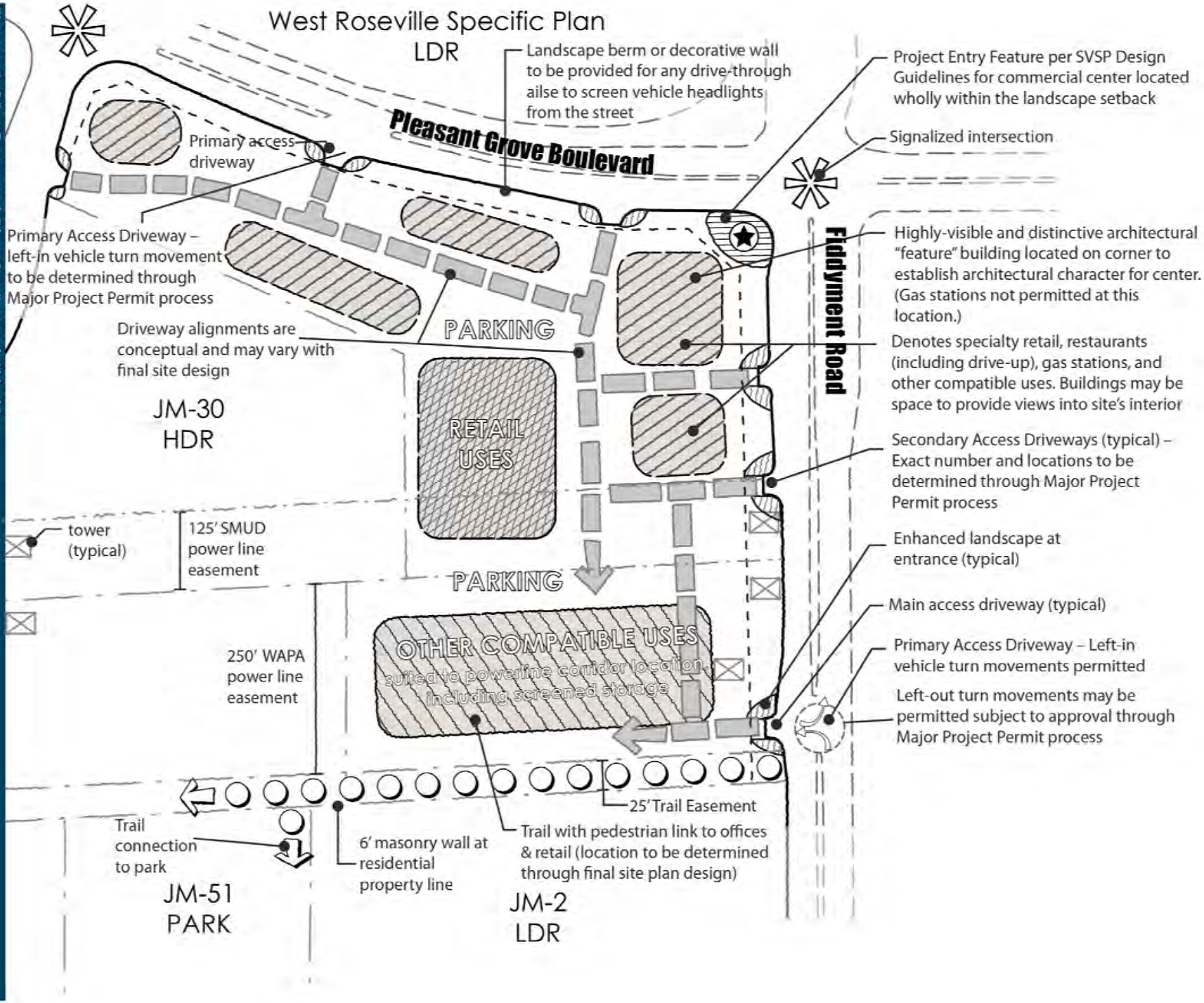


Figure B-31: Concept Plan for Parcel JM-41

OFFICIAL BUSINESS
Document entitled to free recording
Government Code Section 27383

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

City Clerk
City of Roseville
311 Vernon Street
Roseville, CA 95678

(SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE)

THIRD AMENDMENT OF DEVELOPMENT AGREEMENT BY AND BETWEEN THE CITY OF ROSEVILLE AND MOURIER INVESTMENTS, LLC RELATIVE TO THE SIERRA VISTA SPECIFIC PLAN

This Third Amendment of Development Agreement is entered into this ____ day of _____, 2022, by and between the CITY OF ROSEVILLE, a municipal corporation ("City") and SVC1, LLC, a California limited liability company ("SVC1" or "Landowner") pursuant to Sections 65864 through 65869.5 of the Government Code of California.

RECITALS

A. Mourier, Computer Deductions, Inc., a California corporation ("Computer"), and City entered into a Development Agreement (the "Original Development Agreement") which was approved by the City Council of City on May 19, 2010, and recorded on June 18, 2010, in the Official Records of Placer County as Document No. 2010-0045931-00.

B. Mourier, Computer, and City entered into the Original Development Agreement relative to development within a portion of the Sierra Vista Specific Plan Area, as such is more precisely defined in Exhibits "A" and "B" of the Original Development Agreement (the "Property"). Except as otherwise defined herein, all capitalized terms used herein shall have the meanings ascribed thereto in the Original Development Agreement.

C. Computer assigned its interest in the Original Development Agreement to Mourier pursuant to that certain Assignment and Assumption Agreement Relative to the Sierra Vista Specific Plan Development Agreement dated January 13, 2012, and recorded January 31, 2012, as Document No. 2012-0008251-00, in the Official Records of Placer County, California.

D. Mourier transferred a portion of its interest in the Original Development Agreement to John Mourier Construction, Inc., a California corporation ("JMC") pursuant

to that certain Assignment and Assumption Agreement Relative to the Sierra Vista Specific Plan Development Agreement dated as of November 7, 2019, and recorded November 8, 2019, as Document No. 2019-0089192-00, in the Official Records of Placer County, California.

E. City, Mourier, and JMC entered into a First Amendment to the Original Development Agreement (the "First Amendment") which was approved by the City Council of City on March 4, 2020, and recorded on April 13, 2020, in the Official Records of Placer County as Document No. 2020-0032964-00.

F. City and Mourier entered into a Second Amendment to the Original Development Agreement (the "Second Amendment") which was approved by the City Council of City on February 3, 2021, and recorded on April 16, 2021, in the Official Records of Placer County as Document No. 2021-0052864-00. The Original Development Agreement, the First Amendment, and the Second Amendment are hereinafter collectively referred to as the "Development Agreement."

G. Mourier assigned a portion of its interest in the Development Agreement to SCV1, LLC pursuant to that certain Assignment and Assumption Agreement Relative to the Sierra Vista Specific Plan Development Agreement dated as of December 17, 2021, and recorded December 23, 2021, as Document No. 2021-0154747-00, in the Official Records of Placer County, California.

H. This Third Amendment to the Development Agreement (the "Third Amendment") affects certain portions of the Property owned by SVC1 (the "Third Amendment Property"), as described in Exhibit "A" and depicted in Exhibit "B" attached to this Third Amendment and shall run with the land described in Exhibit "A" hereto. SVC1 and City intend for this Third Amendment to document certain density increases within the Plan Area.

I. This Third Amendment is authorized by Section 1.4 of the Development Agreement.

NOW THEREFORE, THE PARTIES MUTUALLY AGREE AS FOLLOWS:

1. AMENDMENT OF DEVELOPMENT AGREEMENT.

a. The land use designations, approximate acreages, and unit counts in Section 2.2 of the Development Agreement for the Third Amendment Property are hereby revised as follows:

High Density Residential	176 units on 7.1 Net Acres;
Community Commercial	13.9 Net Acres;
Right of Way	Net Acres.

2. CONSISTENCY WITH GENERAL PLAN. The City Council has found and determined that this Third Amendment of the Development Agreement is consistent with the General Plan and the Sierra Vista Specific Plan.

3. AMENDMENT LIMITED TO THIRD AMENDMENT PROPERTY. This Third Amendment is limited to and applies only to development of the Third Amendment Property and does not affect or apply in any manner with respect to the development of any other property within the Sierra Vista Specific Plan Area, including without limitation, any other portion of the Property.

4. AMENDMENT. This Third Amendment amends, but does not replace or supersede, the Development Agreement, except as specified herein. As amended hereby with respect to the Third Amendment Property, the Development Agreement remains in full force and effect.

5. FORM OF AMENDMENT. This Third Amendment is executed in two duplicate originals, each of which is deemed to be an original.

IN WITNESS WHEREOF, the City of Roseville, a municipal corporation, has authorized the execution of this Third Amendment in duplicate by its City Manager and attested to by its City Clerk under the authority of Ordinance No. _____, adopted by the Council of the City of Roseville on the ____ day of _____, 2022.

CITY OF ROSEVILLE,
a municipal corporation

By:_____
Dominick Casey
City Manager

ATTEST:

By:_____
Carmen Avalos
City Clerk

APPROVED AS TO FORM;

By:_____
Michele Sheidenberger
City Attorney

APPROVED AS TO SUBSTANCE:

By:_____
Mike Isom
Development Services Director

SVC1, LLC, a
California limited liability company

By:_____
John L. Mourier, III
President

Exhibit ‘A’

Legal Description

Development Agreement
Sierra Vista Specific Plan Lots JM-30 and JM-41

All that real property situtate in the City of Roseville, County of Placer, State of California located in Section 36, Township 11 North, Range 5 East, M.D.M. and being all of Lots 1 and 2 as said Lots are shown on that certain Large Lot Final Map entitled, “The Villages at Sierra Vista”, filed for record in the office of the Recorder on July 29, 2015, in Book ‘DD’ of Maps, at Page 26, Official Records of said County.

EXHIBIT 'B'

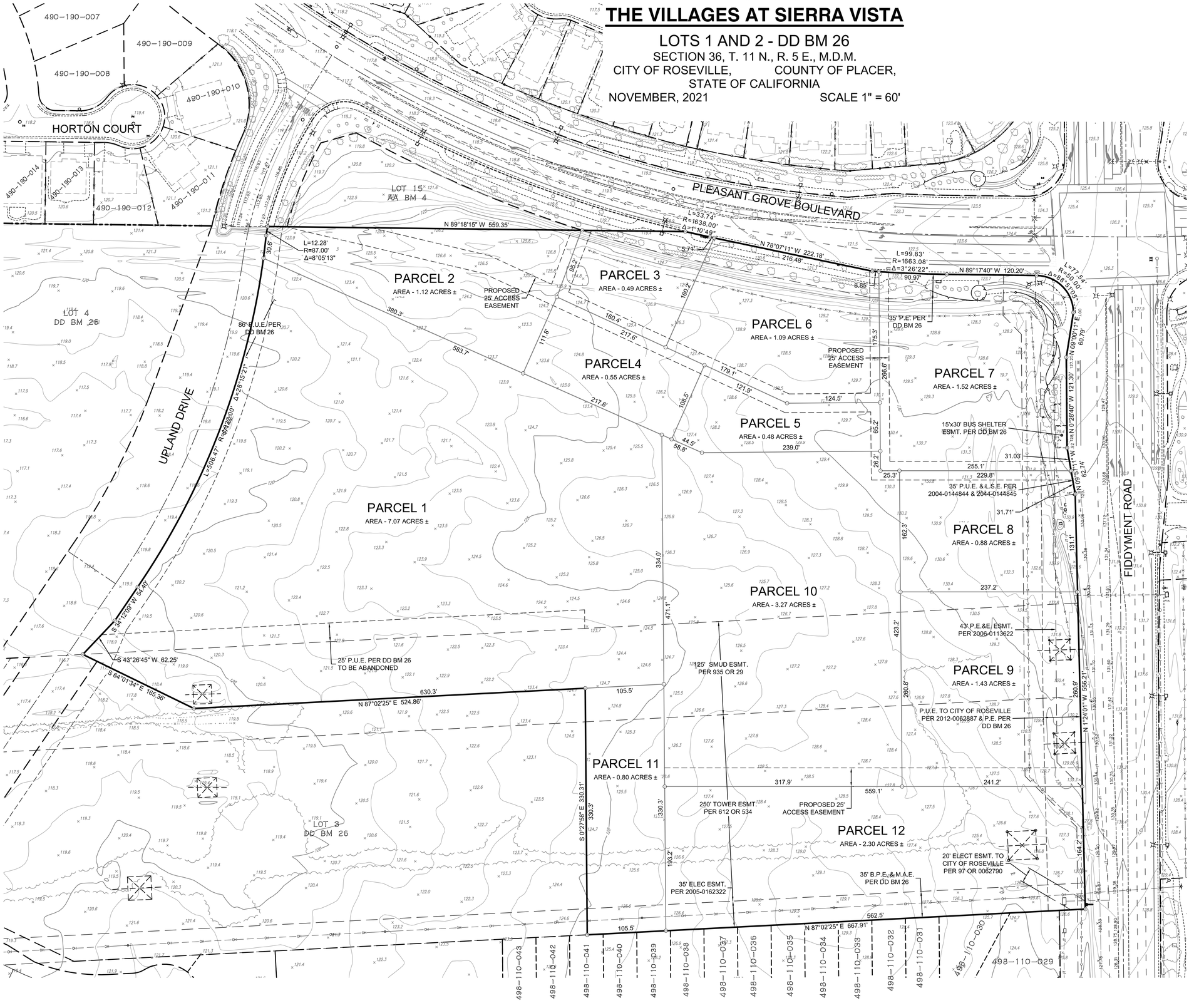


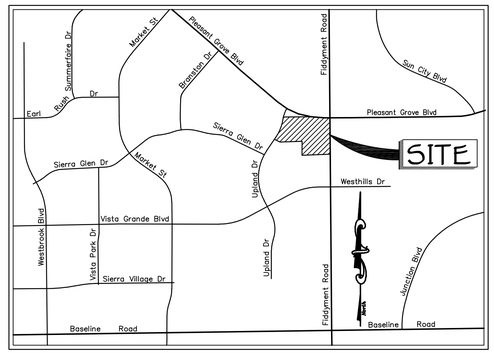
BAKER WILLIAMS ENGINEERING GROUP	SCALE: 1" = 200'	SIERRA VISTA SPECIFIC PLAN
	JOB #: 21-06-017	Lots JM-30 and JM-41
	DATE: JUNE, 2022	CITY OF ROSEVILLE, CALIFORNIA

TENTATIVE MAP FOR

THE VILLAGES AT SIERRA VISTA

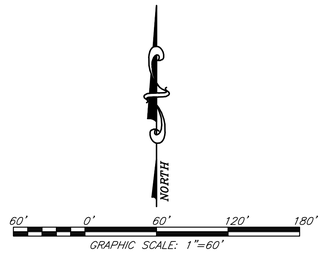
LOTS 1 AND 2 - DD BM 26
SECTION 36, T. 11 N., R. 5 E., M.D.M.
CITY OF ROSEVILLE, COUNTY OF PLACER,
STATE OF CALIFORNIA
NOVEMBER, 2021 SCALE 1" = 60'





VICINITY MAP

Not to Scale



Owner:
Mourier Investments, LLC.
1430 Blue Oaks Boulevard, Ste. 190
Roseville, CA 95678
PH. (916) 969-2842

Engineer:
Baker Williams Engineering Group
6020 Rutland Drive, Suite #19
Carmichael, CA 95608
Ph. (916) 331-4336
office@bwengineers.com

General Plan Designation
LOT 1 - HDR - High Density Residential
LOTS 2 THRU 12 - CC - Community Commercial

Zoning:
LOT 1 - R3
LOTS 2 THRU 12 - CC

Existing Use:
Vacant

Proposed Use:
Vacant

Assessor's Parcel Nos.
498-010-023
498-010-024

BAKER-WILLIAMS ENGINEERING GROUP
Engineering / Surveying / Land Planning / Entitlement Processing / GPS Services
6020 Rutland Drive, Suite 19 ~ Carmichael, CA. 95608
(916) 331-4336 ~ fax (916) 331-4430 ~ office@bwengineers.com

2106017-TENT-PARCEL-MAP

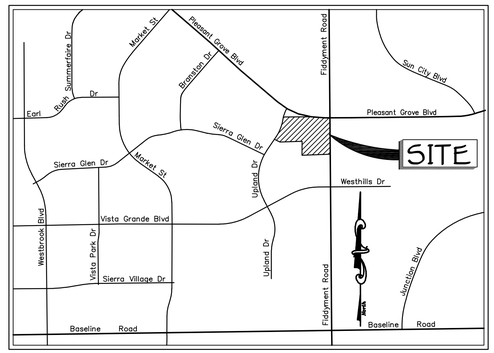
S:\BWEG Jobs\2021 Jobs\21-06-017 SNGR Lots 1A-1D.net_M Files\mxd\2106017 TENT PARCEL MAP.mxd, 2/3/2022 4:50:29 PM, David Cohen

PC EXHIBIT H

UTILITY PLAN FOR:

THE VILLAGES AT SIERRA VISTA

LOTS 1 AND 2 - DD BM 26
SECTION 36, T. 11 N., R. 5 E., M.D.M.
CITY OF ROSEVILLE, COUNTY OF PLACER,
STATE OF CALIFORNIA
NOVEMBER, 2021 SCALE 1" = 60'



VICINITY MAP

Not to Scale

490-190-007
490-190-009
490-190-008
490-190-010
HORTON COURT
490-190-014
490-190-013
490-190-012
490-190-011
LOT 15
AA BM 4
PLEASANT GROVE BOULEVARD
PARCEL 2
AREA - 1.12 ACRES ±
PARCEL 3
AREA - 0.49 ACRES ±
LOT 4
DD BM 26
25' P.U.E. PER DD BM 26
PROPOSED 25' PUBLIC UTILITY EASEMENT
PARCEL 6
AREA - 1.09 ACRES ±
35' P.E. PER DD BM 26
PARCEL4
AREA - 0.55 ACRES ±
PARCEL 7
AREA - 1.52 ACRES ±
UPLAND DRIVE
PARCEL 5
AREA - 0.48 ACRES ±
15'x30' BUS SHELTER ESMT. PER DD BM 26
35' P.U.E. & L.S.E. PER 2004-0144844 & 2004-0144845
PARCEL 8
AREA - 0.88 ACRES ±
FIDDYMENT ROAD
PARCEL 1
AREA - 7.07 ACRES ±
PARCEL 10
AREA - 3.27 ACRES ±
43' P.G.&E. ESMT. PER 2006-0113622
25' P.U.E. PER DD BM 26 TO BE ABANDONED & RE-ALIGNED
125' SMUD ESMT. PER 935 OR 29
PARCEL 9
AREA - 1.43 ACRES ±
P.U.E. TO CITY OF ROSEVILLE PER 2012-0062887 & P.E. PER DD BM 26
PARCEL 11
AREA - 0.80 ACRES ±
250' TOWER ESMT. PER 612 OR 534
PROPOSED 25' PUBLIC UTILITY EASEMENT
LOT 3
DD BM 26
PARCEL 12
AREA - 2.30 ACRES ±
20' ELECT ESMT. TO CITY OF ROSEVILLE PER 97 OR 0062790
35' B.P.E. & M.A.E. PER DD BM 26
35' ELEC ESMT. PER 2005-0162322
498-110-043
498-110-042
498-110-041
498-110-040
498-110-039
498-110-038
498-110-037
498-110-036
498-110-035
498-110-034
498-110-033
498-110-032
498-110-031
498-110-030
498-110-029

NORTH

60' 0' 60' 120' 180'

GRAPHIC SCALE: 1"=60'

Owner:
Mourier Investments, LLC.
1430 Blue Oaks Boulevard, Ste. 190
Roseville, CA 95678
PH. (916) 969-2842

Engineer:
Baker Williams Engineering Group
6020 Rutland Drive, Suite #19
Carmichael, CA 95608
Ph. (916) 331-4336
office@bwengineers.com

General Plan Designation
LOT 1 - HDR - High Density Residential
LOTS 2 THRU 12 - CC - Community Commercial

Zoning:
LOT 1 - R3
LOTS 2 THRU 12 - CC

Existing Use:
Vacant

Proposed Use:
Vacant

Assessor's Parcel Nos.
498-010-023
498-010-024

BAKER-WILLIAMS ENGINEERING GROUP
Engineering / Surveying / Land Planning / Entitlement Processing / GPS Services
6020 Rutland Drive, Suite 19 ~ Carmichael, CA. 95608
(916) 331-4336 ~ fax (916) 331-4430 ~ office@bwengineers.com

2106017-TENT-PARCEL-MAP

S:\BWEA Jobs\2021 Jobs\21-06017 SVSR Fiore, IN\Acad\IN 41\Plotting\21106017TENT PARCEL MAP.dwg, 11" LTR BLIN, 2/9/2022 4:53:29 PM, David Collins

PLANNING COMMISSION COMMUNICATION

Title:	NERSP PCL 25 – Sutter MOB 7, 7 Medical Pz, File # PL 22-0061
Contact:	Escarlet Mar, emar@roseville.ca.us, (916) 774-5247

Meeting Date: 6/23/2022
Item #: 6.2.

ATTACHMENTS:

Description

Staff Report

Attachment 1 Approved 2006 Sutter Master Plan

Attachment 2 Approved 2014 Overall Campus Site Plan

Attachment 3 Fehr and Peers Parking Study for Sutter

Attachment 4 Thomas Law Group Letter on behalf of Sutter

Exhibit A Initial Study Negative Declaration

Exhibit A - Attachment 1 Lozeau Drury LLP Letter

Exhibit A - Attachment 2 May 12, 2022 Planning Commission Memorandum

Exhibit B.1 Plans

Exhibit B.2 Plans

Exhibit C Visual impact analysis

Exhibit D Sutter Graduate Medical Education summary

Exhibit E Sutter Campus Master Plan – Square Footage Summary

Exhibit F Materials Board

CITY OF ROSEVILLE CALIFORNIA

PLANNING DIVISION STAFF REPORT
PLANNING COMMISSION MEETING June 23, 2022

Prepared by: Escarlet Mar, Associate Planner

ITEM 6.2: Design Review Permit and Conditional Use Permit – 7 Medical Plaza – NERSP PCL 25 – Sutter MOB 7 – File #PL22-0061

REQUEST

The applicant requests approval of a Design Review Permit to construct a four-story medical office building and a Conditional Use Permit for a new Graduate Medical Education (GME) program proposed at the Sutter Roseville Medical Center campus. The medical office building (MOB 7) is proposed as a two-phase project, Phase 1 will consist of a four-story building (85,000 square feet) and Phase 2 will add a two-story addition to the main four-story building. The MOB 7 includes improvements to the existing site, a new accessible drop off zone, accessible parking stalls immediately in front of the building, surface parking stalls, a raised pedestrian crosswalk between the parking garage and the MOB 7, and a private outdoor patio area for students and faculty of the GME program. The GME program will occupy the entire first floor of the MOB 7 for classroom instruction and a simulation center.

Applicant – Sarah Bergman, Dreyfuss + Blackford Architecture
Property Owner – Dan Conwell, Sutter Valley Hospitals

SUMMARY RECOMMENDATION

The Planning Division recommends the Planning Commission take the following actions:

1. Adopt the Sutter Parking Garage Expansion & Sutter MOB 7 Negative Declaration;
2. Adopt the three (3) findings of fact and approve the Conditional Use Permit subject to two (2) conditions of approval; and
3. Adopt the four (4) findings of fact and approve the Design Review Permit subject to seventy-one (71) conditions of approval.

SUMMARY OF OUTSTANDING ISSUES

The Negative Declaration prepared to evaluate the potential environmental effects of the MOB 7 project, included an evaluation of the Sutter Parking Garage Expansion project, which was approved by the Planning Commission on May 12, 2022. While these two projects are being considered independently, it was determined that, in order to evaluate the combined environmental impacts of both projects, one comprehensive environmental document would be prepared.

Prior to the May 12, 2022 Planning Commission hearing for the Sutter Parking Garage Expansion project, a comment letter was submitted by the Lozeau Drury law firm, on behalf of the Laborer's International Union of North America alleging that the project may have unmitigated adverse environmental impacts related to indoor air quality, noise and air quality impacts from the emissions of reactive organic compounds (ROGs). The letter concluded with a request that the City prepare and circulate an Environmental Impact Report in lieu of the Negative Declaration. On May 12, 2022, staff prepared, and provided the Planning Commission, a response memo that addressed the comments and provided one minor correction to the document. The response memo concluded that the Negative Declaration adequately evaluated environmental impacts for both the Sutter Parking Garage Expansion project and the MOB 7 project and could be relied upon for compliance with CEQA. In addition, on June 16, 2022, the City received a letter from Thomas Law Group (see Attachment 4), representing Sutter Valley Hospitals, concurring with the City's conclusion and requesting the Planning Commission adopt the Negative Declaration for the MOB 7 project.

Because the Lozeau Drury letter addressed the Negative Declaration that evaluated both the Sutter Parking Garage Expansion project and the MOB 7 project, those comments and the staff response are pertinent to this item. It should be noted that the Planning Commission's approval of the Sutter Parking Garage Expansion project was appealed by Lozeau Drury. Additional information regarding this issue can be found in the Environmental Review Section of this report.

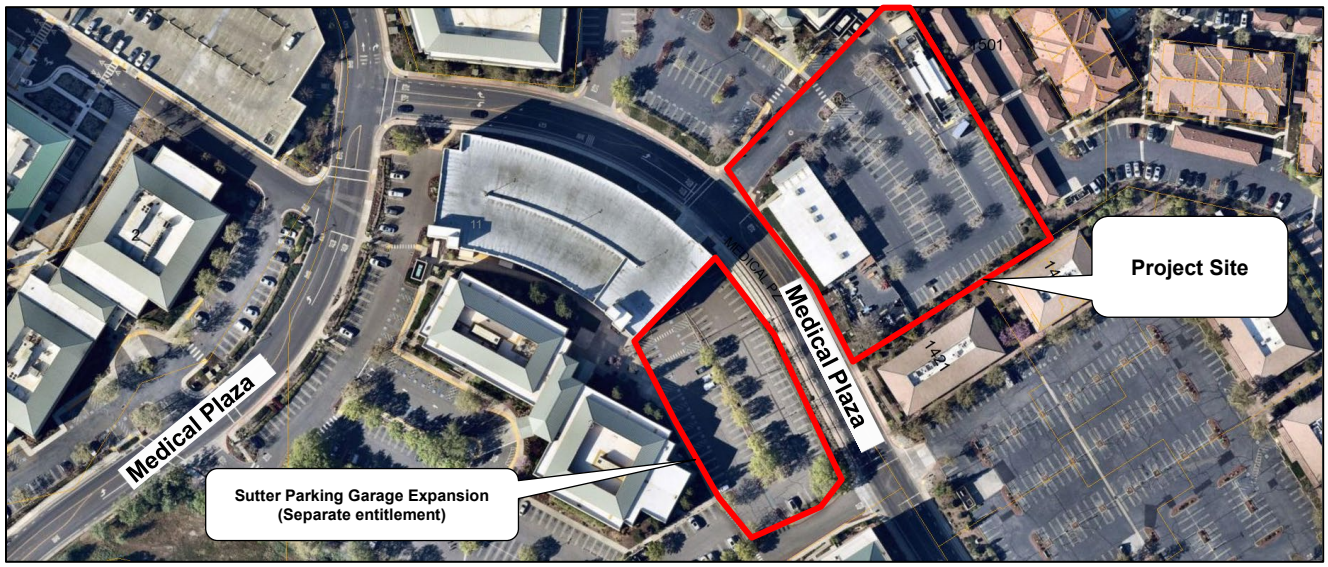
BACKGROUND

The Sutter Roseville Medical Center (SRMC) campus is approximately 49-acres in size and is located in the Northeast Roseville Specific Plan (NERSP). The project site is approximately 1.59 acres in size and is located at 7 Medical Plaza Drive (see Figure 1). The project would result in the construction of a 100,000-square foot medical office building (MOB 7). The MOB 7 is proposed as a two-phase project, Phase 1 will consist of a four-story building (85,000 square feet) and Phase 2 will add a two-story addition to the main four-story building. Through a separate entitlement application (File #PL22-0024), the applicant proposes to expand the existing parking garage to support the existing campus as well as the proposed MOB 7 (see Figure 1). MOB 7 is located just north of the parking garage expansion.

The SRMC site has a General Plan designation of Business Professional (BP). The NERSP land use designation for the SRMC is Medical Campus, and the zoning designation is Planned Development for Medical Campus (PD 457). On October 26, 2006, the Planning Commission approved a Conditional Use Permit (CUP) to allow an increase in square footage of the SRMC from 804,000 square feet to 1,100,000 square feet. The updated overall campus plan which illustrated the additional acute care facilities and medical office buildings, as well as the associated parking area which is included in this staff report for reference (see Attachment 1). On June 26, 2014, the Planning Commission approved a Design Review Permit (DRP) to allow the construction of the SRMC Medical Office Building 6 (MOB 6) and a new parking garage. That project included a new 60,000 square MOB 6 and a 476 space five-story parking garage to be located adjacent to MOB 3 (see Attachment 2). Both of these projects have been constructed.

The current request is for a Design Review Permit and a Conditional Use Permit to allow the construction of a 100,000 square foot medical office building and a new Graduate Medical Education program.

Figure 1: Project Location



SITE INFORMATION

Location: 7 Medical Plaza (046-060-034-000)

Total Size: 1.59 acres

Topography and Setting: The overall SRMC center has been developed throughout the years with an acute hospital, a bed tower, an acute rehabilitation center, medical office buildings, surface parking, a parking garage with a helipad, and a five-story parking garage. The proposed project is located north of the existing five-story parking garage at the northeast corner of the SRMC. The project site is surrounded by multi-family to the east, medical offices to the south, an existing five-story parking garage to the west, and medical office buildings to the north. Currently, the project site is developed with a surface parking lot, landscaping and lighting, and a temporary modular building and sterilization trailer which are proposed to be removed upon approval of the MOB 7.

EVALUATION – CONDITIONAL USE PERMIT

Section 19.78.060 of the City of Roseville Zoning Ordinance requires that three findings be made in order to approve a CUP. The three findings are listed below in ***italicized, bold print*** and are followed by an evaluation of the proposal in relation to each finding.

1. The proposed use or development is consistent with the City of Roseville General Plan and any applicable specific plan.

The SRMC site has a General Plan designation of BP. The NERSP land use designation for the SRMC is Medical Campus, and the zoning designation is Planned Development for Medical Campus (PD 457). The purpose of the BP land use designation provides for small and large office uses, including uses supportive of offices. The BP land use designation primary uses include administrative, professional, government, and medical offices, and research and development (not including any manufacturing or assembly). The General Plan does not address the compatibility of medical related research (educational or instructional) types of uses such as the GME program in the BP land use category. The General Plan therefore relies on the PD 457 to determine the appropriate location and design of medical related research (educational or instructional) uses through the Conditional Use Permit process. As discussed below, the proposed use is consistent with PD 457; therefore, the proposed use is consistent with the General Plan.

2. The proposed use or development conforms with all applicable standards and requirements of the Zoning Ordinance.

The Zoning Ordinance establishes off-street parking requirements for Specialized Education and Training uses, the parking requirement for vocational and specialty schools is one (1) space per 50 square feet of instructional area and one (1) space per 250 square feet of office space. The applicant is still finalizing the final floor plan for the GME program, however, the applicant has noted that the GME program would only occupy the first floor of MOB 7. A final floor plan layout of the GME is still pending, it is anticipated that prior to the submittal for building permits the floor plan will be finalized. The NERSP Guidelines for Medical Campuses allows for parking standards to be modified by the Planning Commission if justified through a parking study. The applicant has submitted a parking study that was completed by Fehr and Peers and dated January 31, 2022 (Attachment 3). The Fehr and Peers parking study is the fourth study conducted for the campus since 2003, the results of the three previous studies are summarized in the Fehr and Peers parking study (see Attachment 3). The parking study compared the parking demand trends from previous years with current parking demands on campus. With a recent shift in tele-medicine appointments, the parking study found a decrease in parking demand on campus. Additionally, the study also noted that a comparison between 2016 and 2021 data showed a decrease in parking demand because the November 2016 parking demand rate was based on “occupied” square footage, while the 2021 rate was based on gross square footage of the campus. It should be noted that the Zoning

Ordinance does not take into account the fact that the proposed medical use is located on a campus and is not a standalone project. Inevitably, physicians, nurses, and other staff of the campus will likely park once and walk between buildings during the course of work. For example, doctors will walk between the medical office building and the hospital to see patients. As such, the parking study which has been developed and updated throughout the years analyzed the unique characteristics of the campus and found a parking ratio that is adequate for the campus. The study identifies a medical office parking ratio of 3.31 spaces per 1,000 square feet of gross building area, which encompasses the GME program square footage and the new MOB 7. The parking garage expansion which is proposed south of MOB 7 would provide sufficient parking stalls for users of the MOB 7 and the GME program. Therefore, as proposed the GME program complies with the applicable standards and requirements of the Zoning Ordinance.

3. ***The location, size, design and operating characteristics of the proposed use or development is compatible with and shall not adversely affect or be materially detrimental to the health, safety, or welfare of persons residing or working in the area, or be detrimental or injurious to public or private property or improvements.***

The GME program is proposed within the same square footage of MOB 7, specifically on the first floor. The first floor of MOB 7 would serve as the base of operations for the program where administrative offices, classrooms, conference space for instruction and lectures, and a simulation center for the GME students. The majority of the activities for the GME would occur between 7 a.m. and 6 p.m., with occasional meetings, lectures and events held in the evening. In addition to the classroom space, a private outdoor area along the east building side (see Figure 6) is proposed. The proposed private outdoor area would only be used by the faculty and students of the GME program during normal hours of operation. Noise levels are expected to increase slightly while students and faculty use the outdoor private area, but the increase in noise levels is not expected to be different from what is currently present on campus (e.g., people talking outside on their phones). Therefore, the location, design, and operating characteristics of the GME program will not adversely affect or be materially detrimental to the health, safety, or welfare of persons residing or working in the area, or be detrimental or injurious to public or private property or improvements because the GME program is ancillary to the MOB 7.

EVALUATION – DESIGN REVIEW PERMIT

The NERSP and subsequent Use Permit approved in 1994 established development standards for the medical campus. The architectural style, colors and materials were established through the initial buildings constructed on the site. Through the Design Review Permit process the City reviews proposed projects on the medical campus for consistency with applicable development standards, architectural design, and consistency with the NERSP standards and Zoning Ordinance requirements.

The evaluation of the Design Review Permit has been based on the applicable development and design standards within the City's Zoning Ordinance, the City's Community Design Guidelines (CDG), and the NERSP. Section 19.78.060(B) of the City of Roseville Zoning Ordinance requires four findings of fact be made in order to approve a Design Review Permit. The four findings for approval of the Design Review Permit are listed below in ***italicized, bold*** text and are followed by an evaluation of the project in relation to each finding.

1. ***The project as approved preserves and accentuates the natural features of the property, such as open space, topography, trees, wetlands and water courses; provides adequate drainage for the project; and allows beneficial use to be made of the site for development.***

As previously mentioned, the site is developed with a surface parking lot, landscaping, and lighting, and a temporary modular building and sterilization trailer, which will both be removed upon construction of the MOB 7. The project as approved would not alter the natural features of the site, such as open space, topography, trees, wetlands, or water courses since the site has been previously disturbed and no natural features exist on the project site. The project has been reviewed by the City's Engineering Division and

has been designed consistent with City standards related to drainage improvements and stormwater quality facilities. The proposed MOB 7 is consistent with the site's BP land use designation, and support the existing use of the site.

2. ***The project site design as approved provides open space; access; vehicle parking; vehicle, pedestrian and bicycle circulation; pedestrian walks and links to alternative modes of transportation; loading areas; landscaping; irrigation; and lighting which results in a safe, efficient, and harmonious development and which is consistent with the applicable goals, policies and objectives set forth in the General Plan, the Community Design Guidelines and the Northeast Roseville Specific Plan (NERSP).***

Vehicle Access and Circulation: The main vehicle access point into the parking lot of MOB 7 would be from Medical Plaza Drive (Figure 2). A second driveway along Medical Plaza Drive closest to MOB 4 will also offer a second entrance to the MOB 7 parking lot. It is expected that most employees and patients of the new MOB 7 building and existing MOB 4 will park in the existing five-story parking garage or the future six-story parking garage expansion and walk across Medical Plaza Drive towards MOB 7.

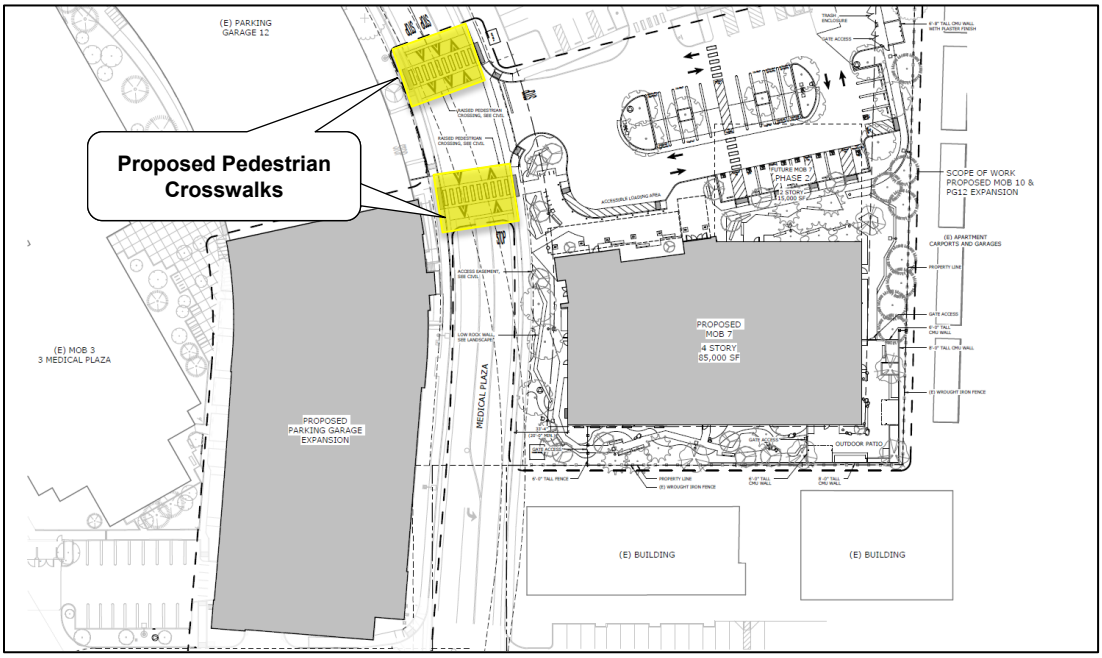
Figure 2: Vehicle Entrances



Pedestrian Access and Circulation: As part of the site improvements, the applicant proposes to remove the existing asphalt paving around the perimeter of the project site, as well as the existing surface parking lot and temporary modular building and sterilization trailer. Sidewalks adjacent to the project site will match the existing pedestrian walkway found in front of MOB 4 and the existing parking garage, which include a five-foot sidewalk along Medical Plaza Drive and landscaping.

Pedestrian connection between the MOB 7 and the future parking garage expansion will occur on the northern side of the parking garage across Medical Plaza Drive. In anticipation of the increase of foot traffic between the MOB 7 and the new parking garage, the applicant proposes two (2) raised pedestrian crosswalks (Figure 3). The raised crosswalks will act as traffic calming measure and provide enhanced safety and visibility for pedestrians crossing between the medical office buildings and the parking garage. As proposed, the project is consistent with the CDG related to pedestrian access and circulation.

Figure 3: Proposed Raised Pedestrian Crosswalks



Building Phasing: At this time, details pertaining the construction of MOB 7 Phase 2 are unknown. However, the applicant has included as part of this submittal a preliminary site plan of Phase 2. Phase 2 will include a two-story addition of 15,000 square feet to the four-story MOB 7. The two-story addition would be constructed on the north building elevation (see Figure 5). The construction of Phase 2 will require the accessible loading area and the accessible parking stalls to be redesigned and relocated in front of the new MOB 7 Phase 2. The displacement of parking stalls in front of the MOB 7 would not be of concern because the parking garage expansion would offset the loss of parking stalls with Phase 2.

Figure 4: MOB 7 Phase 1

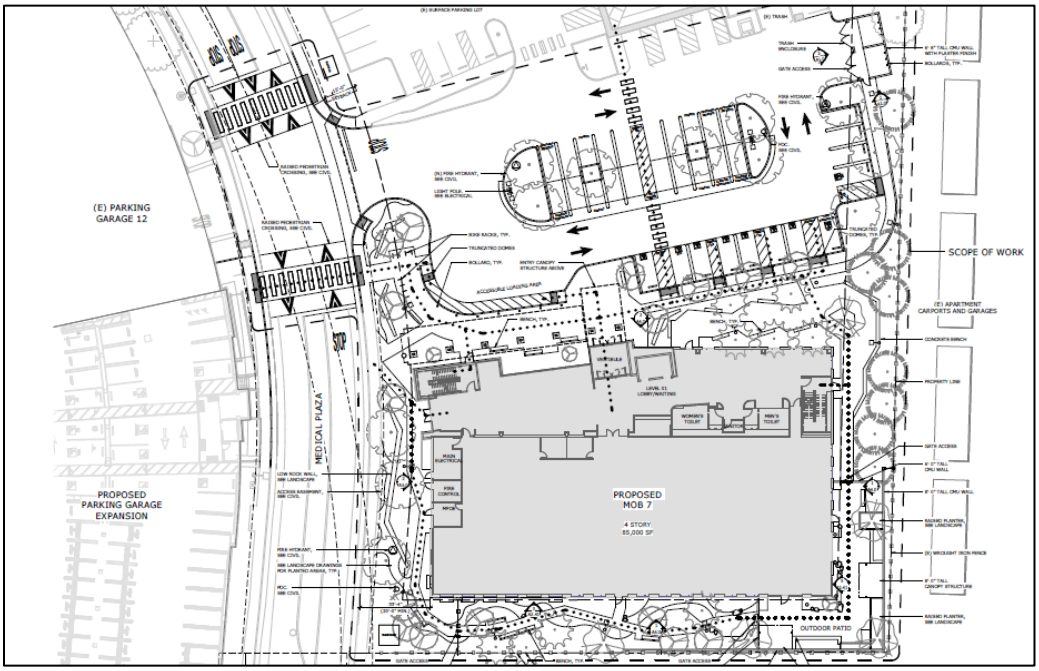
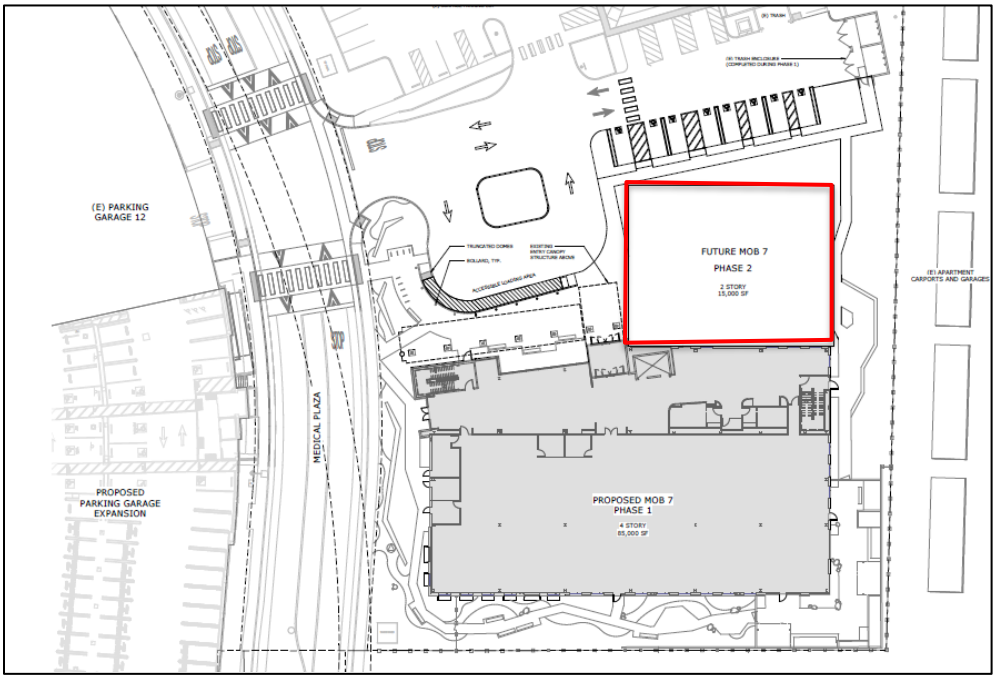


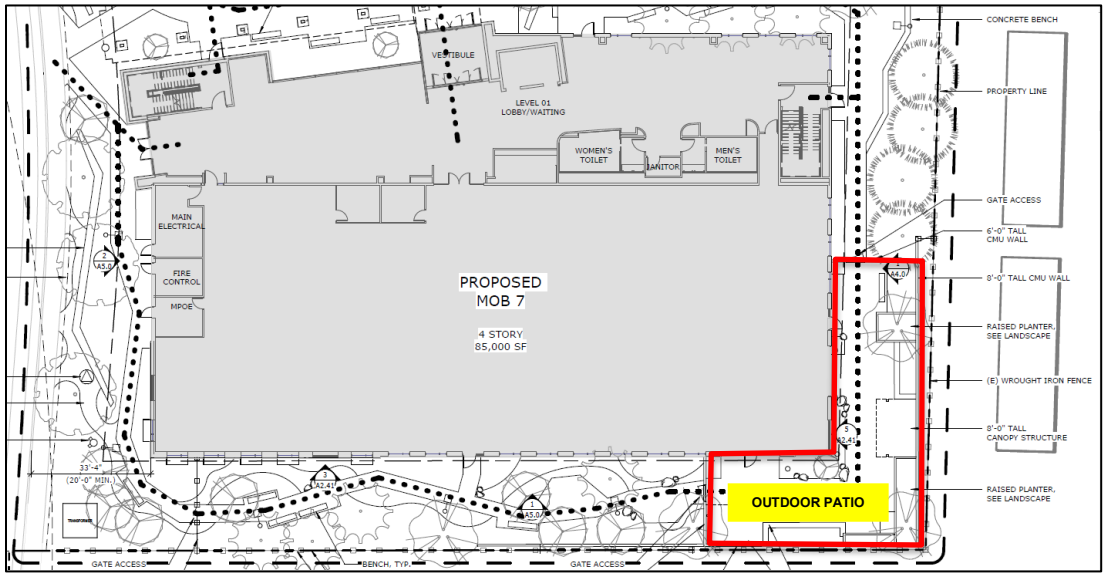
Figure 5: MOB 7 Phase 2



Parking: The NERSP Guidelines for Medical Campuses allows for parking standards to be modified by the Planning Commission if justified through a parking study. The applicant has submitted a parking study that was completed by Fehr and Peers and dated January 31, 2022 (Attachment 3). The study identifies a medical office parking ratio of 3.31 spaces per 1,000 square feet of gross building area. This rate was derived by conducting parking surveys of the campus and utilizing the Institute of Transportation Engineers (ITE) Parking generation, 5th Edition, to separate the amount of parking required for medical office uses versus hospital uses. As previously mentioned, through a separate entitlement application the applicant proposes expanding the existing parking garage to create 551 new parking spaces for the campus and MOB 7. As a result, the Fehr and Peers parking study analyzed both projects (i.e. the parking garage and MOB 7) and found that the new MOB 7 would require 332 new parking spaces to meet the parking ratio of 3.31 spaces per 1,000 square feet of gross building area. The parking garage expansion would create 551 new parking spaces and when added to the 477 parking spaces in the existing parking garage would provide for a total of 1,028 parking spaces. These spaces will continue to support the existing uses within the campus as well as the proposed 100,000 square foot MOB 7. Overall, the parking garage design complies with the City's Zoning Ordinance and the Community Design Guidelines.

Landscaping and patio area: Landscaping is proposed around the perimeter of MOB 7, including medium shade trees (e.g., Sweet Bay, Keith Davey, Red Oak, Black Locust, and Prospector Elm), narrow screen trees (e.g., Norway Maple, Columnar Atlas Cedar, Maidenhair Tree, and Fern Pine), conifer trees (e.g., Incense Cedar, Atlas Cedar, Canary Island Pine, and Austrian Pine), and small accent trees (e.g., Japanese Maple, Western Redbud, Crape Myrtle Coral Pink, Dwarf Southern Magnolia, and Purple-leaf Plum). These trees are similar to the landscape palette used for the parking garage expansion, by using a similar landscape palette for both of these projects the applicant is providing a cohesive landscape design throughout the campus. Shrubs ranging from six (6) inches to four (4) feet in height will be planted all along the perimeter of the building. Overall, the landscape design is consistent with the existing plant palette used for the campus and is consistent with the CDG, the NERSP, and the City's Water Efficient Landscape Ordinance.

Figure 6: Private outdoor patio area



The new MOB 7 will construct a sidewalk along Medical Plaza Drive that will connect to the private patio cover on the east side of the building (see Figure 6). A path along the east side of MOB 7 will lead to a private outdoor patio area, which will serve the GME program. The patio will be adjacent to an indoor lounge/breakroom that is used by GME students and faculty, primarily during the daytime. A new 8-foot-tall CMU wall will separate the patio area from the residential apartment and dental clinic neighbors and a 6-foot-tall fence and gate controls access on both entrances to the patio area will be proposed. The patio area is roughly 4-feet below the grade of the apartment complex. This lower grade along with raised planters with large trees and two freestanding canopies will shield the patio area from the neighbors.

Lighting: Pole and building mounted lighting is proposed throughout the project site. The parking lot area will include standard LED pole-mounted lights, these pole-mounted lights will have an overall height of approximately 25-feet. This height complies with CDG Policy CC-90, which requires pole mounted lighting to be no taller than 25-feet. Consistent with CDG Policy CC-86, the lighting sources will have cut off lenses and be located to avoid light spillage and glare on adjacent properties. In addition, the photometric plan demonstrates compliance with the City's minimum lighting level requirements (0.5 foot-candles in pedestrian areas and 1.0 foot-candles in vehicle areas). Further, the visual impact analysis (Exhibit C) submitted by the applicant illustrates a night time view from the apartments which shows how the proposed MOB 7, in comparison to the existing Phoenician Apartments, would appear in the evening. Overall, the proposed lighting of the MOB 7 is consistent with the City's Zoning Ordinance, the NERSP, and CDG standards.

3. The building design, including the materials, colors, height, bulk, size and relief, and the arrangement of the structures on the site, as approved is harmonious with other development and buildings in the vicinity and which is consistent with the applicable goals, policies and objectives set forth in the General Plan, the Community Design Guidelines and the Northeast Roseville Specific Plan.

Site Planning and Building Siting: The proposed MOB 7 is located along the east edge of the SRMC. The MOB 7 is situated approximately 475-feet from Secret Ravine Parkway to the south and approximately 1,300-feet from East Roseville Parkway to the southwest. Due to its location of the project site within the SRMC, the MOB 7 is adjacent to an existing apartment complex. The MOB 7 is approximately 120-feet from the closest apartment building to the east of the project site. Pursuant to the Design Guidelines of the NERSP, the MOB 7 meets all the design standards of the NERSP as noted in the table below.

Table 1: NERSP – Medical Campus development Standards

	Proposed	
Setbacks		
From the ultimate back of curb of any adjacent existing or planned public roadway, a minimum 100-feet for portion of any building three (3) stories or more in height.	Approximately 475-feet from Secret Ravine Parkway Approximately 1,300-feet from East Roseville Parkway	Complies
From the property line of any adjacent open space area a minimum of 75-feet for that portion of any building three (3) stories or more in height.	Not applicable. MOB 7 is not proposed along the Unnamed Tributary Ravine to the south or along Secret Ravine.	Complies
From any remaining interior property line a minimum of 25 feet for any buildings, parking, paved or enclosed area.	30'-4''	Complies
Lot coverage		
35% of the gross square footage of the parcel	21,989 square feet (35% of the parcel is 23,170 square feet)	Complies
Land coverage		
Min. 20% of the gross square footage of the parcel	33.2%	Complies
Landscape design		
Shall be implemented in accordance with the NERSP landscape design guidelines.	Refer to landscape section above.	Complies
Building height		
A visual impact analysis shall be prepared	See Exhibit C	Complies

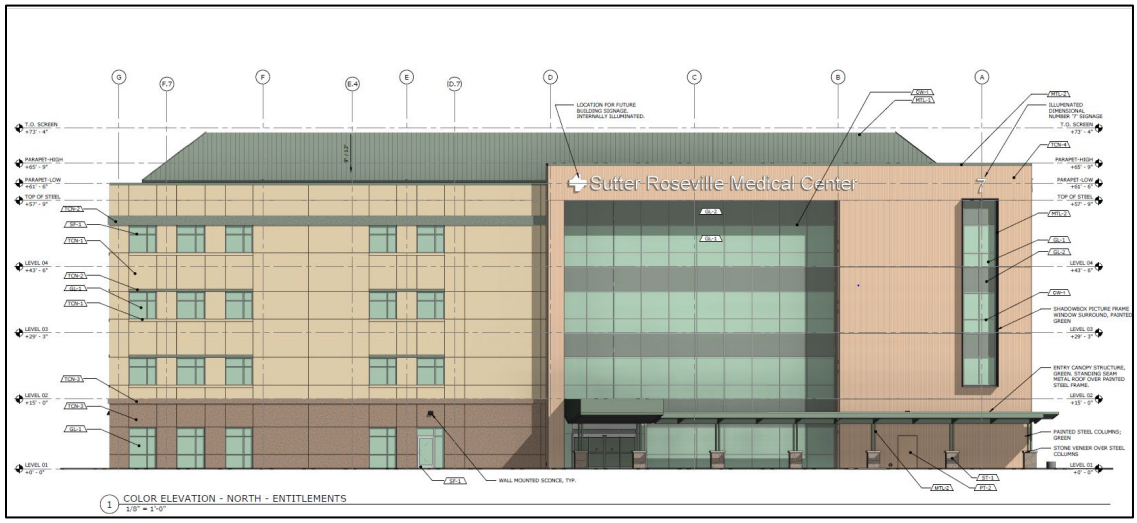
Elevations and Visual Impact Analysis: The NERSP and Environmental Impact Report requires that a visual impact analysis be performed prior to approval of building elevations for the Sutter Medical Campus. This visual analysis is required through the Design Review Permit process. The applicant has prepared the required visual analysis as shown in Exhibit C which illustrates the MOB 7 from several different view sheds. The proposed MOB 7 will be visible from Secret Ravine Parkway, Roseville Parkway and the nearby Phoenician Apartments. From Secret Ravine Parkway and Medical Plaza Drive the MOB 7 will be located behind the existing medical and dental offices. From the Phoenician Apartments, MOB 7 will be visible but will not cause any negative visual impacts or significantly increase the amount of light or glare on the apartments. Currently, MOB 4 is approximately 100-feet from the closest apartment building to the east. Similar to MOB 7, MOB 4 has not caused an increase in the amount of light or glare on the apartments and is anticipated that MOB 7 will not either. As depicted in the visual impact study, while the proposed MOB 7 will be visible from off-site locations, it will not cause any negative visual impacts or significantly increase the amount of light or glare on the Phoenician Apartments to the east.

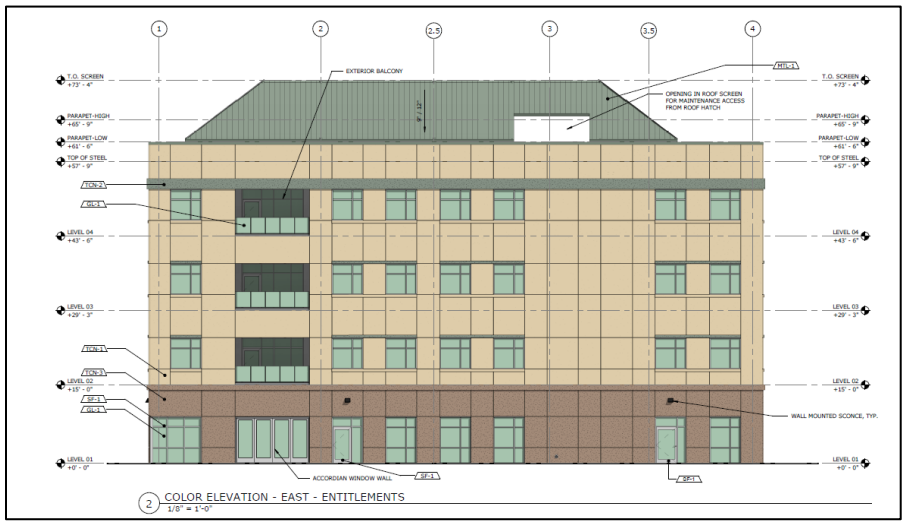
As shown in Figure 7, the applicant proposes a four-story medical office building that emulates the existing campus asthetics. This includes using precast thinshell concrete panels, with a sandlbalsted texture to align with the existing plaster and concrete tiltup buildings on campus (Exhibit B). All the panels on the MOB 7 are adorned in the three standard campus colors of beige, brown and green with linear foam shapes that accentuate the punched windows. The punched window size, pattern, and anodized aluminum frames are designed to match the existing MOBs on campus. Along the southwest corner of the building, horizontal sun shades have been added to reduce glare and heat gain.

The proposed MOB 7 will have an overall height of approximately 73 feet to the top of the mansard roof. The height of the building to the tallest parapet is approximately 65 feet, only the mansard mechanical screens will reach 73 feet. Similar to other MOBs on campus, the building will have mechanical equipment at the top of the building that will be screened from all public views. The mechanical equipment on the roof will not cause an increase in noise levels not already present on campus.

The visual analysis submitted by the applicant provides photo simulation of the proposed MOB 7 from Secret Ravine Parkway and Medical Plaza, and the Phoenician Apartments adjacent to the project site (Exhibit C). While the proposed building will be visible from Secret Ravine Parkway and the existing apartment complex, its visual impacts will not alter the existing visual impacts on campus because of its proximity to other buildings and its design consistent with the other buildings in the campus. The design and scale of MOB 7 is consistent with other MOBs on campus. Therefore, staff supports the proposed MOB 7 design and height.

Figure 7: North and East Building Elevations





4. The design of the public services, as approved, including, but not limited to, trash enclosures and service equipment are located so as not to detract from the appearance of the site, and are screened appropriately and effectively using construction materials, colors and landscaping that are harmonious with the site and the building designs.

Trash Enclosure: In addition to the significant improvements to the site, the applicant proposes a trash enclosure along the eastern property, closest to the existing trash enclosure that serves MOB 4. The trash enclosure is proposed to be approximately 6'-8'' tall CMU wall with plaster finish. The trash enclosure will be painted beige to match the campus color standard. Further, the trash enclosure will be surrounded by shade trees, shrubs and groundcover. The location and proposed design of the trash enclosure will not detract from the appearance of the site and is setback far enough from the street that it will be screened from public view.

Loading areas: The applicant proposes MOB 7 to be constructed in two (2) phases. Phase 1 will involve the construction of the four-story medical office building totaling 85,000 square feet in size (Figure 4). The overall site design of MOB 7 is intended to match the existing campus aesthetic, including the use of natural grasses, native plants, and low rock walls. As proposed, a fixed bench seating area is provided along the accessible drop off area in front of MOB 7. Accessible parking stalls are proposed immediately in front of MOB 7. A total of 32 parking stalls will be provided as part of MOB 7 Phase 1. A shaded seating area with trees at the northeast corner of the building will provide additional outdoor waiting area for patients.

CONCLUSION

The proposed project is consistent with the City's General Plan, Zoning Ordinance, CDG, and the NERSP. Based on the analysis contained in this staff report and with the project conditions, staff finds that the required findings for approval can be made for the proposed Conditional Use Permit and Design Review Permit.

PUBLIC OUTREACH

The proposed project was distributed to all internal and external agencies and departments who have requested such notice, and all comments or recommended conditions of approval have been incorporated into the project, as appropriate.

The applicant held a virtual neighborhood meeting on April 5, 2022. The applicant answered questions from the audience regarding the view sheds of the proposed parking garage expansion and the MOB 7. Additionally, a business owner asked if Sutter would provide a shuttle service for employees and patients to use during construction. The applicant is planning on providing a shuttle service while the project is under construction.

Early notification of the project was posted on the Roseville Coalition of Neighborhood Associations (RCONA)'s website. A notice of the public hearing was published in the Roseville Press Tribune on June 11, 2022 and a notice of the hearing was also distributed to all property owners within 300 feet of the site and posted on the RCONA website. No comments have been received as of publication of the staff report.

ENVIRONMENTAL DETERMINATION

The City of Roseville, acting as Lead Agency, prepared an Initial Study/ Negative Declaration (IS/ND) to evaluate the environmental effects of both the Sutter Parking Garage Expansion project and the MOB 7 project. While these two projects are being considered independently, it was determined that, in order to evaluate the combined environmental impacts of both projects, one comprehensive environmental document would be prepared. The public review period for the Negative Declaration began on April 12, 2022 and ended on May 2, 2022.

The IS/ND was made available for public review online at:
https://www.roseville.ca.us/cms/One.aspx?portalId=7964922&pageId=8774505.

No public comments regarding the Negative Declaration were received during the public review period. The Sutter Parking Garage Expansion project was scheduled for the Planning Commission meeting on May 12, 2022. On May 11, 20022, a comment letter (see Exhibit A – Attachment 1) was submitted by the Lozeau Drury law firm, on behalf of the Laborer's International Union of North America alleging that the project may have unmitigated adverse environmental impacts related to indoor air quality, noise and air quality impacts from the emissions of reactive organic compounds (ROGs). The letter concluded with a request that the City prepare and circulate an Environmental Impact Report in lieu of the Negative Declaration. On May 12, 2022, staff prepared, and provided the Planning Commission, a response memo (see Exhibit A – Attachment 2) that addressed the comments and provided one minor correction to the CalEEMod air quality emissions estimator model. The response memo concluded that the Negative Declaration

adequately evaluated environmental impacts for both the Sutter Parking Garage Expansion project and the MOB 7 project and could be relied upon for compliance with CEQA. On June 16, 2022, the City received a letter from the Thomas Law Group (see Attachment 4), representing Sutter Valley Hospitals, concurring with the City's conclusion and requesting the Planning Commission adopt the Negative Declaration for the MOB 7 project. The letter from the Thomas Law Group addressed all of the comments provided in the Lozeau Drury letter.

Because the Lozeau Drury letter addressed the Negative Declaration that evaluated both the Sutter Parking Garage Expansion project and the MOB 7 project, those comments and the staff response are pertinent to this item. These comments, and the response should be considered by the Planning Commission for the MOB 7 project.

Staff recommends the Planning Commission consider and adopt the proposed Negative Declaration (Exhibit A).

RECOMMENDATION

The Planning Division recommends the Planning Commission take the following actions:

1. Adopt the Sutter Parking Garage Expansion & Sutter MOB 7 Negative Declaration.

2. Adopt the three (3) findings of fact and approve the **CONDITIONAL USE PERMIT – 7 Medical Plaza – NERSP PCL 25 – Sutter MOB 7 –PL22-0061 subject to two (2) conditions of approval**.

3. Adopt the four (4) findings of fact and approve the **DESIGN REVIEW PERMIT – 7 Medical Plaza – NERSP PCL 25 – Sutter MOB 7 –PL22-0061 subject to seventy-one (71) conditions of approval**.

CONDITIONS OF APPROVAL FOR CONDITIONAL USE PERMIT – FILE # PL22-0061

1. This Conditional Use Permit approval shall be effectuated within a period of two (2) years from **June 23, 2022** and if not effectuated shall expire on **June 23, 2024**. Prior to said expiration date, the applicant may apply for an extension of time, provided this approval does not extend the expiration beyond **June 23, 2025**. (Planning)

2. The Conditional Use Permit shall be effectuated upon an occupancy permit being issued for the Graduate Medical Education class. (Planning)

CONDITIONS OF APPROVAL FOR THE DESIGN REVIEW PERMIT – FILE #PL22-0061

1. This Design Review Permit approval shall be effectuated within a period of two (2) years from **June 23, 2022** and if not effectuated shall expire on **June 23, 2024**. Prior to said expiration date, the applicant may apply for an extension of time, provided this approval does not extend the expiration beyond **June 23, 2025**. (Planning)

2. The project is approved as shown in Exhibits A - F and as conditioned or modified below. (Planning)

3. The project shall be addressed as 7 Medical Plaza. All projects with multi-tenants or buildings must submit a site plan with building footprint(s) to the Development Services Department (Business Services – Addressing) for building/suite addressing. (Business Services)

4. The applicant shall pay City's actual costs for providing plan check, mapping, GIS, and inspection services. This may be a combination of staff costs and direct billing for contract professional services. Project billing may occur up to two (2) months after the end of warranty or the Notice of Termination date for the SWPPP, whichever occurs later. (Engineering, Environmental Utilities, Electric, Finance)

5. The design and construction of all improvements shall conform to the Design and Construction Standards of the City of Roseville, or as modified by these conditions of approval, or as directed by the City Engineer. (Engineering)

6. The applicant shall not commence with any on-site improvements or improvements within the right-of-way until such time as grading and/or improvement plans have been submitted for review and are approved with grading and/or encroachment permits issued by the Department of Development Services – Engineering Division. (Engineering)

7. The approval of this project does not constitute approval of proposed improvements as to size, design, materials, or location, unless specifically addressed in these conditions of approval. The Developer shall submit civil drawings to the Department of Development Services – Engineering Division for review and approval. (Engineering)

PRIOR TO ISSUANCE OF BUILDING PERMITS:

8. Parking lot design shall conform to the City's design standards, including the following minimum standards for parking stalls:

    a. All parking stalls shall be double-striped. Parking stalls adjacent to sidewalks, landscaped areas or light fixtures, and all Accessible stalls shall abut a 6-inch raised curb or concrete bumper. (Planning)

    b. Standard – 9 feet x 18 feet; Compact – 9 feet x 16 feet; Accessible – 14 feet x 18 feet (a 9-foot-wide parking area plus a 5-foot-wide loading area) and a minimum of one (1) parking space shall be Accessible van accessible – 17 feet x 18 feet (9-foot-wide parking area plus an 8-foot-wide loading area). (Planning)

    c. An 'exterior routes of travel' site accessibility plan incorporating slope, cross-slope, width, pedestrian ramps, curb ramps, handrails, signage, detectable warnings or speed limit signs or equivalent means shall comprise part of the site improvement plans submitted to City for review, prior to building plan check approvals. This site accessibility plan shall also include:

        i. Accessible parking stalls shall be dispersed and located closest to accessible entrances. The total number of accessible parking spaces shall be established by Table 11B-208.2 of the CBC.

        ii. Accessible Parking spaces and crosswalks shall be signed, marked and maintained as required by Chapter 11 of the CBC.

        iii. Accessible parking and exterior route of travel shall comply with CBC, Sections 11B-206 and 11B-208. (Building)

9. Signs and/or striping shall be provided on-site as required by the Planning Department to control on-site traffic movements. Parking lot striping and signage shall be maintained in a visible and legible manner. (Planning)

10. The plans submitted to the Building Division for permits shall indicate all approved revisions/alterations as approved by the Commission including all conditions of approval. (Planning)

11. The project Landscape Plans shall comply with the following:

    a. The Landscape Plan shall indicate the location of, and be designed to avoid conflicts with, all pole-mounted light fixtures and utility equipment including (but not limited to) electric transformers, switchgear, and overhead lines; backflow preventers; fire department connections; and public

water, sewer, and storm drain facilities. (Planning, Fire, Environmental Utilities, Electric, Engineering)

b. The tree plantings in the parking lot shall be designed to provide a minimum of 50% shade coverage after 15 years. (Planning)

c. At a minimum, landscaped areas not covered with live material shall be covered with a rock, (3") bark (no shredded bark) or (3") mulch covering. (Planning)

d. The landscape plan shall comply with the Landscape Guidelines for Northeast Roseville Specific Plan and the City of Roseville Water Efficient Landscape Ordinance. (Planning, Environmental Utilities)

e. Landscaping adjacent to preserve areas shall consist of California native, drought-tolerant groundcover, shrubs, plants, and trees. (Open Space, Planning)

f. All landscaping in areas containing electrical service equipment shall conform to the Electric Department's Landscape Requirements and Work Clearances as outlined in Section 10.00 of the Departments "Specification for Commercial Construction." (Electric)

g. Slopes within landscape planters shall be no more than 3:1. A two-foot flat bench located at back-of-walk shall be included in the landscape area to slow or allow absorption of nuisance run-off from the planters. (Parks, Recreation, and Libraries)

h. All landscaping shall conform to the standards of crime prevention through environmental design with the intent to create natural surveillance, controlling access, and territorial reinforcement to property boundaries. (Police)

12. Any roof-mounted equipment and satellite dishes proposed shall be shown on the building plans. The equipment shall be fully screened from public streets and the surrounding properties. (Planning)

13. At the time of building permit application and plan submittal, the project applicant shall submit a proposed plan which shows the proposed suite addressing for individual tenant spaces within the building. The Building Official, or the designee, shall approve said plan prior to building permit approval. Refer to the *City of Roseville Addressing Guidelines*. (Building)

14. A separate Architectural Site Accessibility Plan which details the project's site accessibility information as required by California Title 24, Part 2 shall be submitted as part of the project Building Permit Plans. (Building)

15. For Multiple Building Complexes: As part of the required Architectural Site Accessibility Plan, the developer shall delineate the extent of the site accessibility improvements being installed as part of the initial improvements for the project, and those that are planned to be developed as part of subsequent phases (i.e. around future pad buildings). (Building)

16. Building permit plans shall comply with all applicable code requirements (California Building Code – CBC – based on the International Building Code, California Green Building Standards Code–CGBSC, California Mechanical Code – CMC – based on the Uniform Mechanical Code, California Plumbing Code – CPC – based on the Uniform Plumbing Code, California Fire Code – CFC – based on the International Fire Code – with City of Roseville Amendments – RFC, California Electrical Code – CEC – based on the National Electrical Code, and California Energy Standards – CEC T-24 Part 6), California Title 24 and the American with Disabilities Act - ADA requirements, and all State and Federally mandated requirements in effect at the time of submittal for building permits (contact the Building Division for applicable Code editions). (Building)

17. For restaurants, other food services, or commercial swimming pools: The developer shall obtain all required approvals and permits from the Placer County Health Department. (Building)

18. For restaurants, other food services, or commercial swimming pools: The developer shall obtain all required approvals and permits from the Placer County Health Department and the City of Roseville Industrial Waste Division. (Building, Environmental Utilities)

19. Maintenance of copy of building plans: Health and Safety Code section 19850 requires the building department of every city or county to maintain an official copy of the building plans for the life of the building. As such, each individual building shall be submitted as a separate submittal package. Building plan review, permit issuance and archiving is based on each individual building address. (Building)

20. The Improvement Plans shall include a complete set of Landscape Plans. The Landscape Plans shall be approved with the Improvement Plans. (Planning, Engineering, Fire, Environmental Utilities, Electric)

21. A note shall be added to the grading plans that states:

    *"Prior to the commencement of grading operations, the contractor shall identify the site where the **excess/borrow** earthen material shall be imported/deposited. If the **borrow/deposit** site is within the City of Roseville, the contractor shall produce a report issued by a geotechnical engineer to verify that the exported materials are suitable for the intended fill, and shall show proof of all approved grading plans. Haul routes to be used shall be specified."* (Engineering)

22. Bike parking and clean air vehicle spaces shall be provided per the California Green Building Standards. Bike rack/locker design and location shall be approved by Alternative Transportation. (Alternative Transportation, Building).

23. The site shall include a designated Dial-a-Ride drop off and pick up area with an accessible path of travel to the main entrance of the building. Applicant shall install a pole for Dial-A-Ride sign (sign provided by Alternative Transportation). A covered seating area for our Dial-a-Ride passengers shall be located at the main entrance and it will be visible from the drive aisle of the drop-off and pick-up area. (Alternative Transportation, Planning, and Engineering).

24. All storm drainage, including roof drains, shall be collected on site and treated with Best Management Practices (BMP's) per the City's Stormwater Quality Design Manual. All storm water shall be routed to the nearest existing storm drain system or natural drainage facility. Drain outfalls shall extend down to the receiving water and shall be constructed with adequate velocity attenuation devices. The grading/improvement plans for the site shall be accompanied with a shed map that defines that area tributary to this site and all drainage facilities shall be designed to accommodate the tributary flow. The storm drain system and proposed BMP's shall be privately owned and maintained by the property owner. Prior to the issuance of any permits, the owner shall provide a plan for the maintenance of the proposed BMP's. (Engineering)

25. Prior to the approval of the Improvement Plans, the project proponent shall provide proof of preparation and submittal of a Storm Water Pollution Prevention Plan (SWPPP) to the Regional Water Quality Control Board (RWQCB). Proof shall be in the form of the Waste Discharge Identification Number (WDID#), provided to the applicant from RWQCB, placed on the coversheet of the improvement plans. Upon approval of the improvement plans, a copy of the SWPPP shall be required onsite and available for viewing by City inspection staff upon request. (Engineering)

26. Sight distances for all driveways shall be clearly shown on the improvement plans to verify that minimum standards are achieved. It will be the responsibility of the project proponent to provide appropriate

landscaping and improvement plans, and to relocate and/or modify existing facilities as needed to meet these design objectives. (Engineering)

27. The applicant shall remove and reconstruct any existing damaged curb, gutter, and sidewalk along the property frontage. During plan check of the improvement plans and/or during inspection, Development Services - Engineering will designate the exact areas to be reconstructed. Any existing public facilities damaged during the course of construction shall be repaired by the property owner and at the property owner's expense, to the satisfaction of the City. (Engineering)

28. Prior to the approval of the improvement plans, it will be the project proponent's responsibility to pay the standard City Trench Cut Recovery Fee for any cuts within the City streets that are required for the installation of underground utilities. (Engineering)

29. Prior to the issuance of building permits, the property owner shall pay into the following fee programs: Citywide Drainage Fee, Citywide Traffic Mitigation Fee (TMF), Highway 65 Joint Partners Association (JPA), South Placer Regional Transportation Authority (SPRTA), and City/County Fee. (Engineering)

30. The applicant/developer shall update the Transportation Systems Management (TSM) Plan for Sutter Roseville to be reviewed and approved by the Transportation Commission. (Alternative Transportation)

31. Prior to the issuance of a grading permit or approval of Improvement Plans, the grading plans shall clearly identify all existing water, sewer and recycled water utilities within the boundaries of the project (including adjoining public right of way). Existing utilities shall be identified in plan-view and in profile-view where grading activities will modify existing site elevations over top of or within 15 feet of the utility. Any utilities that could potentially be impacted by the project shall be clearly identified along with the proposed protection measures. The developer shall be responsible for taking measures and incurring costs associated with protecting the existing water, sewer and recycled water utilities to the satisfaction of the Environmental Utilities Director. (Environmental Utilities)

32. The applicant shall pay all applicable water and sewer fees. (Environmental Utilities)

33. Water and sewer infrastructure shall be designed pursuant to the adopted City of Roseville Improvement Standards and the City of Roseville Construction Standards and shall include:

    a. Utilities or permanent structures shall not be located within the area which would be disturbed by an open trench needed to expose sewer trunk mains deeper than 12 feet unless approved by Environmental Utilities in these conditions. The area needed to construct the trench is a sloped cone above the sewer main. The cone shall have 1:1 side slopes.

    b. Water, sewer and recycled mains shall not exceed a depth of 12 feet below finished grade, unless authorized in these conditions of approval.

    c. All sewer manholes shall have all-weather, 10-ton vehicle access unless otherwise authorized by these conditions of approval. (Environmental Utilities)

34. Trash enclosures, recycling areas, and enclosure approaches shall be designed to current Refuse Division specifications, the materials and colors shall match the building, and the location of such facilities shall be reviewed and approved by the Refuse Division, Planning and the Fire Department. The enclosure must have inside dimensions of 12 feet wide and 9 feet deep and be built to the specifications of the Solid Waste Department's Enclosure Description. (Refuse, Planning, Fire)

35. Access to trash enclosures shall have an inside turning radius of 25 feet and an outside turning radius of 45 feet must be maintained to allow the refuse truck access to and from the enclosure. Enclosures must have a clear approach of 65 feet in front of the enclosure to allow servicing bins. (Refuse)

36. A trash enclosure and recycling enclosure is required for each building and each tenant, otherwise, the building owner is responsible for the trash service. (Refuse)

37. The design and installation of all fire protection equipment shall conform to the California Fire Code and the amendments adopted by the City of Roseville, along with all standards and policies implemented by the Roseville Fire Department. (Fire)

38. The applicable codes and standards adopted by the City shall be enforced at the time construction plans have been submitted to the City for permitting. (Fire)

39. The Electric Department requires the submittal of the following information in order to complete the final electric design for the project:

    a. one (1) set of improvement plans

    b. load calculations

    c. electrical panel one-line drawings

40. All on-site external lighting shall be installed and directed to have no off-site glare. Lighting within the parking areas and pedestrian walkways shall provide a maintained minimum of one (1) foot-candle, and 0.5 foot-candle of light, respectively. All exterior light fixtures shall be vandal resistant. (Planning, Police)

41. The parking lot shall have properly posted signs that state the use of the parking area is for the exclusive use of employees and customers of this project. (See California Vehicle Code Sections 22507.8, 22511.5, 22511.8, 22658(a), and the City of Roseville Municipal Code Section 11.20.110). The location of the signs shall be shown on the approved site plan. (Planning, Police)

42. It is the developer's responsibility to notify PG&E of any work required on PG&E facilities. (PG&E)

DURING CONSTRUCTION & PRIOR TO ISSUANCE OF OCCUPANCY PERMITS:

43. Any backflow preventers visible from the street shall be painted green to blend in with the surrounding landscaping. The backflow preventers shall be screened with landscaping and shall comply with the following criteria:

    a. There shall be a minimum clearance of four feet (4'), on all sides, from the backflow preventer to the landscaping.

    b. For maintenance purposes, the landscaping shall only be installed on three sides and the plant material shall not have thorns.

    c. The control valves and the water meter shall be physically unobstructed.

    d. The backflow preventer shall be covered with a green cover that will provide insulation. (Planning, Environmental Utilities)

44. The following easements shall be provided by separate instrument and shown on the site plan, unless otherwise provided for in these conditions:

    a. Additional internal easements will be required to cover primary electrical facilities to the project when the final electrical design is completed. (Electric)

45. Easement widths shall comply with the City's Improvement Standards and Construction Standards. Separate document easements required by the City shall be prepared in accordance with the City's

"Policy for Dedication of Easements to the City of Roseville". All legal descriptions shall be prepared by a licensed land Surveyor. All existing public utility, electric, water, sewer and reclaimed water easements shall be maintained unless otherwise authorized by these conditions of approval. (Engineering, Environmental Utilities, Electric)

46. Inspection of the potable water supply system on new commercial/industrial/office projects shall be as follows:

    a. The Environmental Utilities Inspector will inspect all potable water supply up to the downstream side of the backflow preventer.

    b. The property owner/applicant shall be responsible for that portion of the water supply system from the backflow preventer to the building. The builder/contractor shall engage a qualified inspector to approve the installation of this portion of the water supply. The Building Division will require from the builder/contractor, a written document certifying that this portion of the potable water supply has been installed per improvement plans and in accordance with the Uniform Plumbing Code. This certificate of compliance shall be submitted to the Building Division before a temporary occupancy or a building final is approved.

    c. The building inspectors will exclusively inspect all potable water supply systems for the building from the shutoff valve at the building and downstream within the building. (Building, Environmental Utilities)

47. All improvements being constructed in accordance with the approved grading and improvement plans shall be accepted as complete by the City. (Engineering)

48. The words "traffic control appurtenances" shall be included in the list of utilities allowed in public utilities easements (PUE's) located along public roadways. (Engineering)

49. The applicant/developer shall update the Transportation Systems Management (TSM) Agreement for Sutter Roseville to be reviewed and approved by the City Manager. (Engineering, Alternative Transportation)

50. Water and sewer shall be constructed pursuant to the adopted City of Roseville Improvement Standards and the City of Roseville Construction Standards. (Environmental Utilities)

51. All water backflow devices shall be tested and approved by the Environmental Utilities Department. (Environmental Utilities)

52. All Electric Department facilities, including streetlights where applicable, shall be designed and built to the "City of Roseville Specifications for Commercial Construction." (Electric)

53. The City of Roseville Electric Department has electrical construction charges which are to be paid by the developer and which are explained in the City of Roseville "Specification for Commercial Construction." These charges will be determined upon completion of the final electrical design. (Electric)

54. Any relocation, rearrangement, or change of existing electric facilities due to this development shall be at the developer's expense. (Electric)

55. Any facilities proposed for placement within public/electric utility easements shall be subject to review and approval by the Electric Department before any work commences in these areas. This includes, but is not limited to, landscaping, lighting, paving, signs, trees, walls, and structures of any type. (Electric)

56. All electric metering shall be directly outside accessible. This can be accomplished in any of the following ways:

    a. Locate the metered service panel on the outside of the building.

    b. Locate the metered service panel in a service room with a door that opens directly to the outside. The developer will be required to provide a key to the door for placement in a lock box to be installed on the outside of the door. Any doors leading from the service room to other areas of the building shall be secured to prohibit unauthorized entry. (Electric)

57. One ¾-inch conduit with a 2-pair phone line shall be installed from the building's telephone service panel to the meter section of the customer's electrical switchgear or panel. (Electric)

58. It is the responsibility of the developer to ensure that all existing electric facilities remain free and clear of any obstruction during construction and when the project is complete. (Electric)

59. The developer will be responsible for intercepting existing conduits and installing a pad vault switch to accommodate the load of the new building. The vault shall be placed on the north of the proposed driveway adjacent to Medical Plaza.

60. A new transformer will placed adjacent to Medical Plaza near the proposed building.

61. Signs shown on the elevations are not approved as part of the Design Review Permit. A Sign Permit is required for all project signs. (Planning)

62. Following the installation of the landscaping, all landscape material shall be maintained in a healthy and weed-free condition; dead plant material shall be replaced immediately. All trees shall be maintained and pruned in accordance with the accepted practices of the International Society of Arboriculture (ISA). (Planning)

63. The City reserves the right to restrict vehicle turning movements within the public right-of-way in the future if deemed necessary by the City Engineer. (Engineering)

64. The required width of fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. Minimum required widths and vertical clearances established by the Fire Code shall be maintained at all times during construction. Closure of accesses for fire apparatus by gates, barricades and other devices shall be prohibited unless approved by the Fire Chief. (Fire)

65. Temporary aboveground storage tanks may be used at construction sites for diesel fuel only and shall not exceed 1,000 gallon capacity. Tanks shall comply with all provisions found within the Fire Code. A Fire Department Permit shall be obtained prior to tank installation. The permit shall expire after 90 days from the date of issuance, unless extended by the Fire Chief. (Fire)

66. If site survey or earth moving work results in the discovery of hazardous materials in containers or what appears to be hazardous wastes released into the ground, the contractor or person responsible for the building permit must notify the Roseville Fire Department immediately. A representative from the Fire Department will make a determination as to whether the incident is reportable of not and if site remediation is required. (Fire)

67. The location and design of the gas service shall be determined by PG&E. The design of the gas service for this project shall not begin until PG&E has received a full set of City approved improvement plans for the project. (PG&E)

68. The project is subject to the noise standards established in the City's Noise Ordinance. In accordance with the City's Noise Ordinance, project construction is exempt between the hours of seven a.m. and

seven p.m. Monday through Friday, and between the hours of eight a.m. and eight p.m. Saturday and Sunday, provided that all construction equipment shall be fitted with factory installed muffling devices and be maintained in good working order. (Building)

69. The developer (or designated consultant) shall certify that the building foundation location has been placed according to all approved setback requirements shown on the approved site plan. The developer shall prepare a written statement confirming building placement and provide an original copy to the City Building Division Field Inspector at the time of or prior to the foundation inspection. (Building)

70. Prior to Certificate of Occupancy, the applicant may apply for a Temporary Certificate of Occupancy (TCO) of the building. If a TCO is desired, the applicant must submit a written request to the Building Division a minimum of thirty (30) days prior to the expected temporary occupancy date and shall include a schedule for occupancy and a description of the purpose for the Temporary Certificate of Occupancy. (Building)

71. Concurrent with submittal for plan check and prior to a request for final building inspection, the applicant may request City approval of an occupancy phasing plan to allow individual or multiple building occupancies. This request shall be made in writing to the Building Division and shall include the following:

    a. A description of measures that will be undertaken to minimize conflict between residents/building occupants and construction traffic (e.g. fencing, etc.);

    b. A phasing plan showing the proposed buildings, internal roads and access routes, landscaping, trash enclosure locations, and any other improvements planned for each phase; and

    c. An estimated time frame for each phase and a specific date for the first phase. (Planning, Building)

ATTACHMENTS

1. Approved 2006 Sutter Master Plan
2. Approved 2014 Overall Campus Site Plan
3. Fehr and Peers Parking Study for Sutter Roseville Medical Center
4. Thomas Law Group Letter on behalf of Sutter

EXHIBITS

A. Initial Study/Negative Declaration
A. Attachment 1 – Lozeau Drury LPP Letter
A. Attachment 2 – May 12, 2022 Planning Commission Memorandum
B. Plans
C. Visual impact analysis
D. Sutter Graduate Medical Education summary
E. Sutter Campus Master Plan – Square Footage Summary
F. Materials Board

Note to Applicant and/or Developer: Please contact Planning Division staff at (916) 774-5276 prior to the Commission meeting if you have any questions on any of the recommended conditions for your project. If you challenge the decision of the Commission in court, you may be limited to raising only those issues which you or someone else raised at the public hearing held for this project, or in written correspondence delivered to the Planning Manager at, or prior to, the public hearing.

ATTACHMENT 1



Sutter Roseville Medical Center

CAMPUS MASTER PLAN

FINAL 1.1 M SF OPTION

CURRENT MASTER PLAN

CURRENT ACUTE USES:	
EXISTING HOSPITAL ACUTE SPACES:	320,800 SF
ACUTE USE IN MOB 4:	14,382 SF
BED TOWER:	90,240 SF
WELL-BABY NURSERY:	2,037 SF
CURRENT OUTPATIENT USES/ MOB'S:	
OUTPATIENT USES IN ACUTE SPACE:	12,015 SF
MOB 2:	76,000 SF
MOB 3:	82,075 SF
MOB 4:	14,467 SF
MOB 5:	60,000 SF
TOTAL CURRENT DEVELOPMENT:	*552,626 SF*

MASTER PLAN ADDITION

CURRENT PLAN PROJECTS:	
NICU EXPANSION (ACUTE):	12,800 SF
ACUTE BLDG. 6 ARC:	105,730 SF
TOTAL CURRENT PLAN PROJECTS:	*118,530 SF*
FUTURE POTENTIAL GROWTH:	
IMAGING/SURGERY EXP. (ACUTE):	22,800 SF
FUTURE ACUTE SPACE 13:	69,420 SF
FUTURE ACUTE SPACE 14:	99,681 SF
FUTURE MOB 11:	60,000 SF
FUTURE MOB 12:	46,943 SF
FUTURE MOB (1351 SECRET RAVINE):	30,000 SF
TOTAL FUTURE POTENTIAL GROWTH:	*328,844 SF*
MASTER PLAN TOTAL:	***1,100,000 SF***

PARKING SUMMERY

EXISTING PARKING:	2,157
MOB 5	69
ACUTE BLDG. 6 ARC	-5
IMAGING/SURGERY EXPANSION	-14
FUTURE ACUTE SPACE 13	-78
FUTURE ACUTE SPACE 14	-108
FUTURE MOB 11	-129
FUTURE MOB 12	-147
FUTURE MOB (1351 SECRET RAVINE)	18
FUTURE PARKING GARAGE 7	355
FUTURE PARKING GARAGE 8	625
FUTURE PARKING GARAGE 10	1,123
TOTAL PARKING:	3,884

630 ABOVE CODE REQUIRED PARKING
24 ABOVE IDEAL PARKING NUMBER

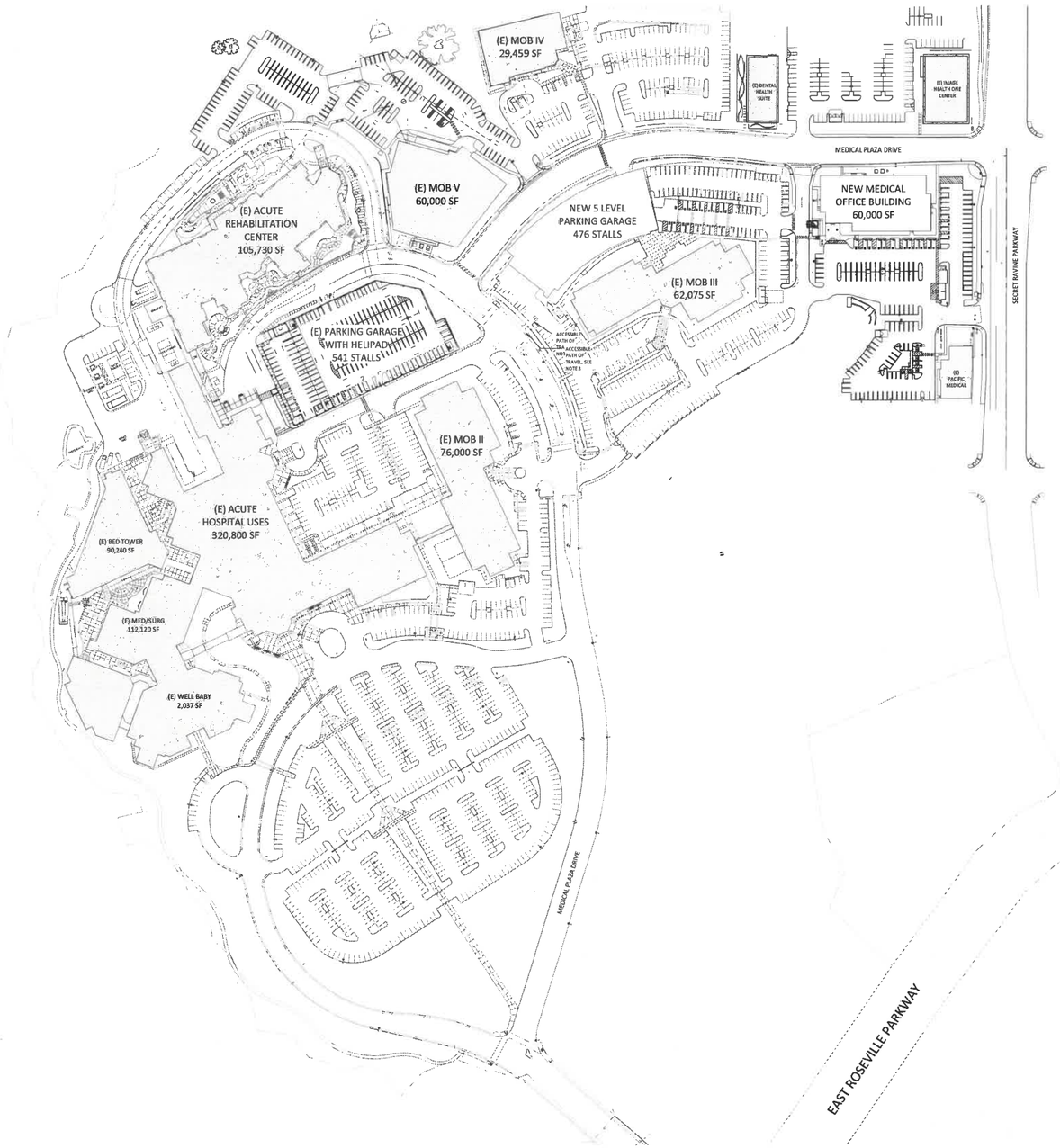
FILE COPY

RECEIVED
MAY 0 1 2006
PERMIT CENTER

- EXISTING BUILDING
- 2008 CUP MASTER PLAN BUILD-OUT
- EXISTING & FUTURE PARKING
- FUTURE ACUTE
- FUTURE MOB

HGA
Architecture | Engineering | Planning

EXHIBIT B



APPROVED BY:
PLANNING COMMISSION
CITY OF ROSEVILLE

JUN 26 2014

ATTEST: DO

FILE COPY

SUTTER ROSEVILLE CURRENT CAMPUS PLAN

Current Acute Uses

Existing Hospital Acute Spaces:	320,800 SF
Acute Use in MOB 4:	14,992 SF
Bed Tower:	90,240 SF
Well-Baby Nursery:	2,037 SF
NICU:	12,800 SF
Acute Rehabilitation Center:	105,730 SF

Current Outpatient Uses/MOB's

Outpatient uses in Acute Space:	12,015 SF
MOB 2:	76,000 SF
MOB 3:	62,075 SF
MOB 4:	14,467 SF
MOB 5:	60,000 SF
Total Current Development:	771,156 SF
+ New 3 story MOB:	60,000 SF
New Total Development:	**831,156 SF**
(Master Plan Total:	1,100,000 SF)

1331 21st Street | Sacramento, California 95811 | 916.492.8796 | boulderassociates.com
BOULDER • SACRAMENTO • ORANGE COUNTY • SAN FRANCISCO • DALLAS
BOULDER ASSOCIATES ARCHITECTS

FEHR PEERS

Memorandum

Date: January 31, 2022

To: Mr. David Padgham – Separovich/Domich Real Estate Development
Ms. Sarah Bergman – Dreyfuss + Blackford Architecture

From: David Manciati – Fehr & Peers

Subject: Parking Study for Sutter Roseville Medical Center (SRMC)

RS21-4104

This technical memorandum presents the data collection, analysis, and conclusions of our parking study for SRMC. The purpose of the study was to document the existing parking supply and demand, and to determine how the proposed Medical Office Building (MOB) 10 and 12 Medical Plaza Drive garage expansion could change those values.

Construction of MOB 10 is proposed to occur in two phases. Phase 1 will consist of an 85,000 square-foot four-story building with a drop-off area and 32 adjacent parking spaces. It will displace an existing surface lot with 99 parking spaces and a 6,700 square-foot modular building. Phase 2 will include a 15,000 square-foot two-story building attached to the Phase 1 MOB 10 building and removal of 24 adjacent parking spaces. The expansion of the 12 Medical Plaza Drive garage will construct a six-story parking structure attached to the existing five-story parking garage. The expansion will include 556 new parking stalls and will displace an existing surface lot with 93 spaces. The net effect of these changes would be the addition of 372 parking spaces to the campus.

Background

This parking data collection effort is the fourth such study we have conducted since 2003. The results of the three previous studies are summarized in **Table 1**. Data in this table is used later in this memo to compare parking demand trends over time. An updated parking study is now warranted given the following:

- Continued development of the campus (including an expansion of the Emergency Department completed in 2020)
- Current proposal to construct 100,000 square-foot MOB 10

Table 1: Synopsis of Previous Parking Demand Studies at SRMC

Study Period	Occupied Square Footage	Hospital/MOB Square Footage Percentage	Parking Supply	Maximum Parking Utilization	Peak Parking Demand Rate
February 2003	442,210 sq. ft	76% / 24%	1,533 parking spaces	80%	2.77 spaces per ksf
October 2012	721,156 sq. ft. [1]	69% / 31%	2,334 parking spaces	80%	2.57 spaces per ksf
November 2016	801,156 sq. ft.	64% / 36%	2,570 parking spaces	83%	2.66 spaces per ksf

Notes: MOB = medical office building; ksf = thousand square feet
[1] Includes 30,000 sq. ft. of built but unoccupied acute care space in the Sutter Rehabilitation Institute building.
Source: Fehr & Peers, 2022.

Existing Conditions

Fehr & Peers retained National Data Services (NDS) to conduct parking utilization surveys on Tuesday, October 5, 2021 and Thursday, October 7, 2021. During each day, the number of parked vehicles was recorded on an hourly basis beginning at 9 AM and continuing until 4 PM in 25 distinct parking areas of the campus.

Sutter administrators reported 348 people in hospital beds on the first count day and 365 on the second count day (the campus is currently licensed for 382 beds). Additionally, administrators reported that that there were new employee orientations on both count days, resulting in 55 additional staff on Tuesday and 25 additional staff on Thursday. Thus, the counted days are representative of a slightly above average condition.

Parking Supply

In addition to counting the number of parked vehicles, NDS also recorded the available parking supply in each lot including classification of spaces as either standard, accessible (i.e., requiring a handicap placard), physician, carpool, valet, motorcycle, or recreational vehicle. Refer to **Figure 1** for a summary of the 25 distinct parking areas and their supplies. This includes floor-by-floor parking supply and demand for both parking garages.

Of the 2,478 total parking spaces on campus, 1,957 (79 percent) are designated as standard spaces, of which about one-third have use restrictions (e.g., patient-only, visitor-only, ambulance, security, EV charge, passenger loading, etc.). Of the remaining 21 percent of spaces, 7.2 percent are reserved for physicians, 5.9 percent are reserved for vehicles with handicap placards, 4.9

percent are reserved for carpool, 2.6 percent are reserved for valet, 0.2 percent are reserved for motorcycles, and 0.4 percent are reserved for recreational vehicles.

Parking Demand

On Tuesday, October 5th, the peak parking demand occurred at 11 AM (2,186 parked vehicles), with similar demand at 2 PM (2,175 parked vehicles). On Thursday, October 7th, peak parking demand occurred during the same hours as Tuesday, with 2,121 parked vehicles at both 11 AM and 2 PM. **Figures 1 and 2** illustrate the campus-wide peak parking demand at 11 AM on the first count day and at 2 PM on the second count day. Key findings from this data include:

- Peak parking demand was three percent greater on Tuesday, October 5th than Thursday, October 7th.
- On Tuesday, October 5th, 2,186 vehicles were parked at 11 AM, which represented utilization of 88 percent of all available parking. Of the 25 individual parking areas, 19 had parking utilizations of at least 85 percent, with 8 parking areas having utilizations of 95 percent or higher.
- At 11 AM and 2 PM, the parking areas adjacent the hospital, emergency department, MOB 2, the Sutter Rehabilitation Institute (SRI), and MOB 5 tend to be full or approaching capacity.
- The 9 Medical Plaza Drive parking garage (represented by floors G1 through G3) was 93 percent occupied at 10 AM, 96 percent occupied at 11 AM, and 98 percent occupied at 2 PM during the Tuesday observation. Thus, this garage is effectively full by between 10 and 11 AM.
- At 11 AM and 2 PM, the east side of campus tends to have lower utilization. The 12 Medical Plaza Drive garage is at 74 percent and 72 percent of capacity at 11 AM and 2 PM, respectively. The first four floors of the garage (represented by floors P1-P4) were consistently above 84 percent utilization between 9 AM and 3 PM on both count days, while the maximum utilization on the top floor (represented by floor P5) was observed to be only 27 percent, occurring at 3 PM during the Tuesday observation.

As evidenced by the data shown in Appendix A, the demand for parking stayed fairly strong and constant throughout the workday. On both days, the campus-wide parking demand continuously exceeded 75 percent from 9 AM to 3 PM, inclusive.

The following describes the parking demand for specific user groups:

- Handicapped parking demand differed considerably by parking lot. In parking areas A1, B2, B3, D2, and G1, 100 percent of these spaces were occupied. Accessible space peak demand varied from moderate to approaching capacity in the rest of the parking lots. Demand in the 12 Medical Plaza Drive garage was low (i.e., 3 of 9 spaces were occupied). Refer to Appendix A for occupancy data in specific lots.

- Physician-only parking was approaching capacity or entirely occupied in most parking areas. On Tuesday, October 5th, 88 percent of all physician-only spaces were occupied at 11 AM. Lots A1, D1, H2, K1, and K2, as well as floors P1 and G1, each had two or fewer available physician-only spaces at peak occupancy. The remaining parking lot with physician-only parking, Lot H4, reached a peak occupancy of 78 percent at 1 PM on the second count day. This means there were spaces for up to 5 additional physician vehicles in Lot H4.
- On the second count day, carpool or vanpool parking was full or approaching capacity (i.e., greater than 90 percent occupancy) in Lots C2 and H1, as well as in the 12 Medical Plaza Drive garage. This garage had spaces for up to 7 more vanpool/carpool vehicles.
- Clean Air parking spaces in the 12 Medical Plaza Drive garage were well-utilized (i.e., 8 of 10 spaces occupied). EV charging spaces in this garage were fully used on both count days (i.e., 10 out of 10 spaces occupied).
- Valet/Overflow parking in Lot C2 had a peak occupancy of 83 percent, while valet parking in Lot H3 reached 91 percent occupancy.

Parking Demand Rate

Based on the peak parking demand of 2,186 spaces from the first count day, the campus's current peak parking generation rate is 2.35 spaces per thousand square feet (ksf) of gross building space. This represents an 11.6 percent decrease from the November 2016 parking demand rate of 2.66 spaces per ksf shown in Table 1. This decrease in parking demand rate may be due to the following:

- A comparison of 2016 and 2021 data shows that peak parking demand only grew by 32 spaces (from 2,154 to 2,186). This is generally consistent with the 2016 Fehr & Peers parking study for the ED expansion, which anticipated it would cause a relatively small increase in parking demand despite its considerable size (98 ksf). As stated in that study, the ED expansion was intended to relieve overcrowding and to provide additional ICU space. It was not intended to accommodate outpatient visits or other high turnover activities.
- The November 2016 parking demand rate is based on "occupied" square footage, while the 2021 rate is based on gross square footage[1].
- Factors related to the current COVID-19 pandemic may have affected campus trip generation (e.g., increase in remote work and tele-medicine appointments).

---

[1] Fehr & Peers inquired about the proportion of campus space that is occupied versus unoccupied. However, we have been advised that the amount that is occupied versus unoccupied is unknown. Therefore, the parking demand model was developed based on gross square footage.

Development of Parking Demand Model

According to Sutter Health, there are currently 929,524 gross square feet of medical space on the campus (see Appendix A for square footage by use and building). This consists of 69.4 percent hospital space and 30.6 percent medical office space.

Parking Generation, 5th Edition (Institute of Transportation Engineers, 2019) contains the following data with respect to medical center parking demand:

- Hospital (Land Use Code 610): peak period parking demand of 2.25 spaces per ksf based on 11 studies of urban/suburban hospitals whose average size was 383 ksf.
- Medical-Dental Office Building (Land Use Code 720): peak period parking demand of 3.23 spaces per ksf based on 117 studies whose average size was 46 ksf.

Using these rates and the campus's current building totals, the campus would be expected to have a peak parking demand of 2,370 spaces. The fact that the expected demand exceeds the observed demand by 8.4 percent is intuitively reasonable as there are certainly staff, patients, visitors, etc. who park once and visit both the hospital and an MOB during a single visit. Thus, the disaggregated ITE parking demand rates provide a good fit for conditions at SRMC, but require a minor calibration to precisely match the 2021 observations. The calibrated MOB parking demand rate of 2.98 spaces per ksf[2,3] was then used for estimating how much parking demand the construction of MOB 10 would yield.

Effect of 12 Medical Plaza Drive Expansion and MOB 10 (Phase 1)

As previously stated, Sutter Health proposes to construct MOB 10 in two phases. Phase 1 will consist of an 85,000 square-foot four-story building with a drop-off area and 32 adjacent parking spaces. It will displace an existing surface parking lot with 99 parking spaces and a 6,700 square-foot portable building. The modular building is presumed to house non-medical activity and generate only a modest amount of vehicle trips. Its removal is not considered in the parking calculations below.

---

2 Calibrated as follows: ITE peak parking demand rate of 3.23 spaces per ksf of MOB was divided by 108.4 percent to account for ITE approach overestimating actual demand by 8.4 percent, thereby yielding 2.98 spaces per ksf.

3 According to the City of Roseville Municipal Code, 5 parking spaces are required per 1 ksf of MOB. However, this analysis shows that with the MOB characteristics at Sutter Roseville Medical Center, providing parking at that level would result in an oversupply of parking. Using the calibrated parking demand model for the campus, MOB has a peak demand of 2.98 spaces per ksf. Applying an effective demand-to-supply ratio of 0.90 (to account for illegal parking, vehicles circulating to find spaces, etc.), a reasonable parking supply ratio for MOB 10 would be 3.31 spaces per ksf.

Concurrent with MOB 10, Sutter Health proposes to expand the 12 Medical Plaza Drive parking garage to include an attached six-story parking structure with 556 new parking stalls. The garage expansion would also displace an existing surface parking lot with 93 parking spaces.

Tables 2 and 3 show how the proposed MOB 10 (Phase 1) and 12 Medical Plaza Drive garage expansion would affect the campus's peak period parking supply and demand, respectively. As shown, the campus parking supply would increase by 396 spaces (from 2,478 to 2,874) and the campus parking demand would increase by 253 spaces (from 2,186 to 2,439). As a result, the campus-wide parking utilization would decrease from 88 percent under existing conditions to 85 percent under existing plus project (Phase 1) conditions.

Table 3 also shows where new and displaced parking demand is likely to be absorbed. Most of the increase in demand would park in the expanded 12 Medical Plaza Drive garage. Lot H2 has reserve capacity and is in the proximity of MOB 10 and displaced parking lot H1. Therefore, a modest amount of demand would be expected to park in Lot H2. Other parking areas within walking distance, such as D2, H3, and H4, would absorb a nominal amount of demand, as they are currently approaching capacity. Lots D1, K2, and K3, as well as the 9 Medical Plaza Drive garage, are not shown to increase in demand, as they are effectively full (i.e., greater than 95 percent utilization). With Phase 1, the 12 Medical Plaza Drive garage would have a peak occupancy of 68 percent.

Table 2: Effect of 12 Medical Plaza Drive Expansion/MOB 10 (Phase 1) on Supply

Parking Area	Supply			
	Existing Conditions [1]	MOB 10 Change (Phase 1)	12 Medical Plaza Dr Expansion Change	Existing Plus Project (Phase 1)
K1	102	-99	0	3
MOB 10 Lot	-	+32	0	32
H1	59	0	-59	0
H2	188	0	-34	154
12 Medical Plaza Drive Expansion	-	0	+556	556
Campus Total	2,478	-67	+463	2,874

Notes: [1] Existing parking supply based on parking data collected on Tuesday, October 5th, 2021.
Source: Fehr & Peers, 2022.

Table 3: Effect of 12 Medical Plaza Drive Expansion/MOB 10 (Phase 1) on Demand

Parking Area	Demand (Percent Utilization)			
	Existing Conditions [1]	MOB 10 Change (Phase 1) [2]	12 Medical Plaza Dr Expansion Change	Existing Plus Project (Phase 1)
K1	77 (75%)	-76	0	1 (33%)
MOB 10 Lot	-	+32	0	32 (100%)
D2	48 (94%)	+1	0	49 (100%)
H1	40 (68%)	0	-40	0 (N/A)
H2	157 (84%)	+12	-28	141 (92%)
H3	54 (93%)	+1	0	55 (95%)
H4	63 (76%)	+2	0	65 (78%)
12 Medical Plaza Dr (Existing + New)	365 (74%)	+281	+68	714 (68%)
Campus Total	2,186 (88%)	+253 [3]	0	2,439 (85%)

Notes: [1] Existing parking demand based on parking occupancy data collected at 11 AM on Tuesday, October 5th, 2021
[2] Where lots were already at least 95% occupied, no additional demand was added (since they are effectively full).
[3] Computed using calibrated parking demand rate derived from the Medical-Dental Office Building land use category in ITE's Parking Generation, 5th Edition.
Source: Fehr & Peers, 2022.

Effect of 12 Medical Plaza Drive Expansion and MOB 10 (Phase 2)

Phase 2 of MOB 10 proposes a 15,000 square-foot two-story building attached to the Phase 1 building and removal of 24 adjacent parking spaces.

Tables 4 and 5 show how the proposed MOB 10 (Phase 2) and 12 Medical Plaza Drive garage expansion would affect the campus's existing peak period parking supply and demand, respectively. As shown, the campus parking supply would increase by 372 spaces (from 2,478 to 2,850) and the campus parking demand would increase by 298 spaces (from 2,186 to 2,484). As a result, the campus-wide parking utilization would remain relatively constant compared to existing conditions, reducing from 88 percent to 87 percent.

Table 5 also shows where parking demand is likely to be absorbed. Phase 2 is estimated to increase new parking demand over Phase 1 levels by 45 spaces. In addition, 24 spaces in the MOB 10 parking lot would be displaced. These combined 69 vehicles would likely be absorbed by the

expanded 12 Medical Plaza Drive garage due its proximity and reserve capacity. Demand at other parking lots is not projected to change as compared to Phase 1 conditions. **Figure 3** shows the projected campus-wide peak parking demand at 11 AM.

Under MOB 10 Phase 2 conditions, the expanded 12 Medical Plaza Drive garage is projected to be similarly utilized as under existing conditions, with utilization projected to increase from 74 percent to 75 percent.

Table 4: Effect of 12 Medical Plaza Drive Expansion/MOB 10 (Phase 2) on Supply

Parking Area	Supply			
	Existing Conditions [1]	MOB 10 Change (Phases 1 & 2)	12 Medical Plaza Dr Expansion Change	Existing Plus Project (Phase 2)
K1	102	-99	0	3
MOB 10 Lot	-	+8	0	8
H1	59	0	-59	0
H2	188	0	-34	154
12 Medical Plaza Drive Expansion	-	0	+556	556
Campus Total	2,478	-91	+463	2,850

Notes: [1] Existing parking supply based on parking data collected on Tuesday, October 5th, 2021.
Source: Fehr & Peers, 2022.

Table 5: Effect of 12 Medical Plaza Drive Expansion/MOB 10 (Phase 2) on Demand

Parking Area	Demand (Percent Utilization)			
	Existing Conditions [1]	MOB 10 Change (Phases 1 & 2) [2]	12 Medical Plaza Dr Expansion Change	Existing Plus Project (Phase 2)
K1	77 (75%)	-76	0	1 (33%)
MOB 10 Lot	-	+8	0	8 (100%)
D2	48 (94%)	+1	0	49 (100%)
H1	40 (68%)	0	-40	0 (N/A)
H2	157 (84%)	+12	-28	141 (92%)
H3	54 (93%)	+1	0	55 (95%)
H4	63 (76%)	+2	0	65 (78%)
12 Medical Plaza Dr (Existing + New)	365 (74%)	+350	+68	783 (75%)
Campus Total	2,186 (88%)	+298 [3]	0	2,484 (87%)

Notes: [1] Existing parking demand based on parking occupancy data collected at 11 AM on Tuesday, October 5th, 2021
[2] Where lots were already at least 95% occupied, no additional demand was added (since they are effectively full).
[3] Computed using calibrated parking demand rate derived from the Medical-Dental Office Building land use category in ITE's Parking Generation, 5th Edition.
Source: Fehr & Peers, 2022.

Sensitivity Test

As previously stated, this analysis is based on gross square footage. A sensitivity test was conducted to determine how campus-wide parking occupancy would change with buildout of the proposed project (MOB 10 Phase 2 and 12 Medical Plaza Drive expansion) under the following hypothetical scenario:

1) 95 percent of gross square footage (i.e., 883 ksf of 929 ksf) was occupied during the October 2021 data collection.
2) The unoccupied 5 percent of hospital/MOB square footage subsequently becomes occupied at some point in the near future.

Under this scenario, the parking demand model would be recalibrated and would yield an expected peak parking demand of 2,615 spaces under existing plus project (MOB 10 Phase 1&2 and 12 Medical Plaza Drive Expansion) conditions. Therefore, instead of campus-wide 87 percent utilization, the campus-wide parking utilization would be about 92 percent. This exercise

demonstrated that the "plus project" projected campus-wide peak parking utilization of 87 percent would increase by about the same number of percentage points as vacant space becomes occupied (i.e., if 3 percent of vacant space were to be occupied, parking utilization would increase to about 90 percent).

Conclusions

Assuming all campus building square footage is currently in use (i.e., occupied square footage equals gross square footage), the proposed MOB 10 and 12 Medical Plaza Drive Expansion would cause the near-term campus-wide peak parking utilization to decrease from 88 percent to 85 percent under Phase 1 and to 87 percent under Phase 2. A sensitivity test under Phase 2 conditions showed that plus project parking utilization would be higher if currently unoccupied building space becomes occupied.

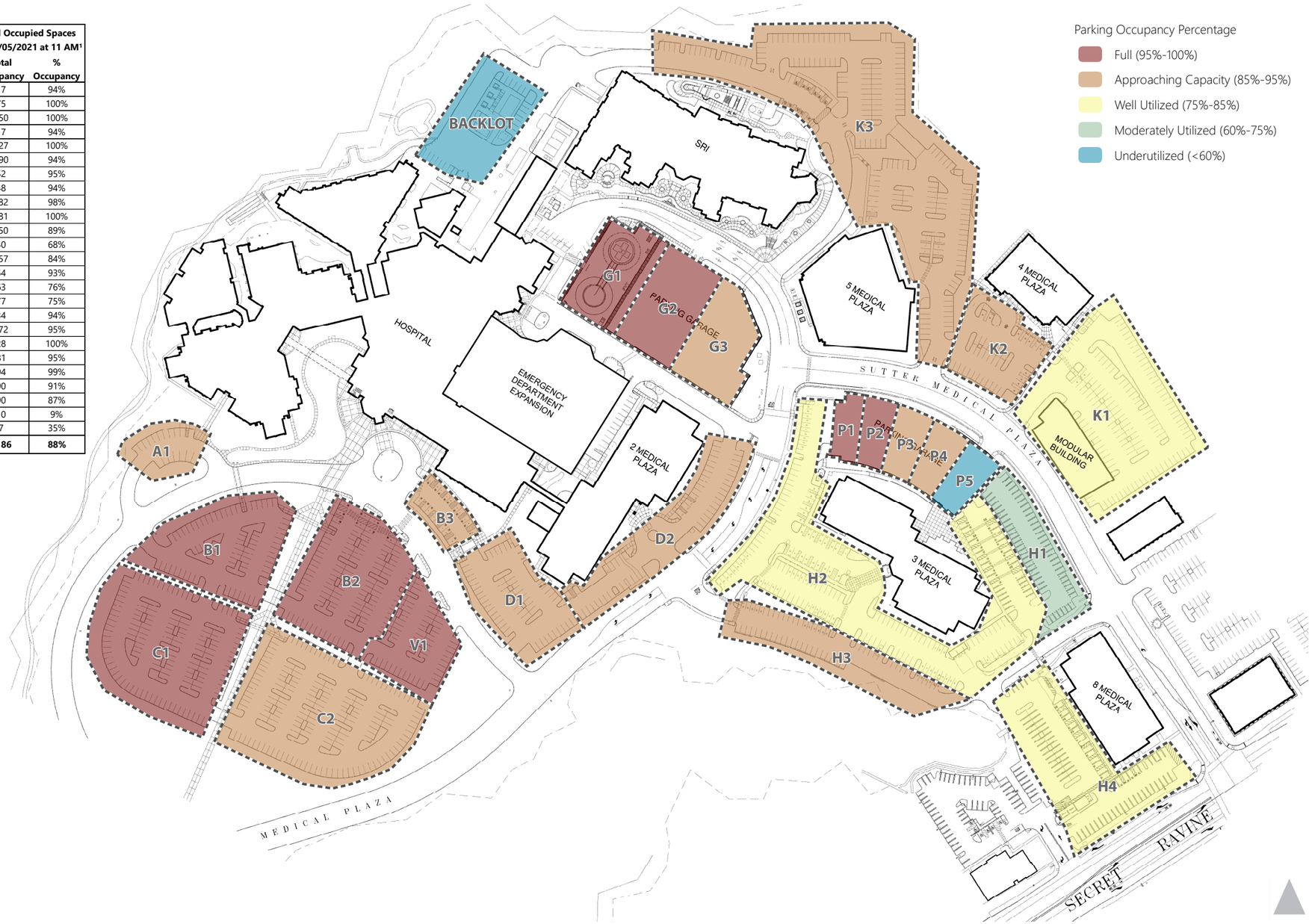
Parking areas on the west side of campus tend to be full or approaching capacity under existing conditions. Parking supply and demand on this side of campus is projected to remain relatively unchanged with the proposed project.

The east side of campus tends to have lower utilization under existing conditions. Most parking demand growth resulting from the proposed project is projected to be absorbed by the expanded 12 Medical Plaza Drive garage, while surrounding parking lots would modestly increase in utilization. Overall, all parking areas would be at least 85 percent occupied at peak, with two exceptions. Lot H4 would remain under capacity and the expanded 12 Medical Plaza Drive garage would have reserve capacity.

SRMC CAMPUS PARKING PLAN SUMMARY OCTOBER 2021

Lot	Type of Parking								Total Occupied Spaces on 10/05/2021 at 11 AM[1]	
	Standard	Handicap	Physician	Carpool	Valet	Motorcycle	RV	Total	Total Occupancy	% Occupancy
A1	8	2	8					18	17	94%
B1	75							75	75	100%
B2	141	9						150	150	100%
B3		18						18	17	94%
C1	127							127	127	100%
C2	137			23	42			202	190	94%
D1			5	50				55	52	95%
D2	38	13						51	48	94%
G1	84	11	84			6		185	182	98%
G2	181							181	181	100%
G3	169							169	150	89%
H1	39			20				59	40	68%
H2	134	37	17					188	157	84%
H3	36				22			58	54	93%
H4	44	16	23					83	63	76%
K1	85	5	8				4	102	77	75%
K2	17	7	12					36	34	94%
K3	162	20						182	172	95%
V1	28							28	28	100%
P1	57	2	22	4				85	81	95%
P2	88	1		6				95	94	99%
P3	91	2		6				99	90	91%
P4	96	2		6				104	90	87%
P5	100	2		6				108	10	9%
BACKLOT	20							20	7	35%
TOTAL	**1957**	**147**	**179**	**121**	**64**	**6**	**4**	**2478**	**2186**	**88%**

[1] On the same day at 2:00 PM, occupancy was also 88% (2,175 vehicles).



N:\2021 Projects\4104.00_Roseville_SRMC_MOB_Parking\Graphics\GIS\MXD\Fig01_TuesdayAM.mxd

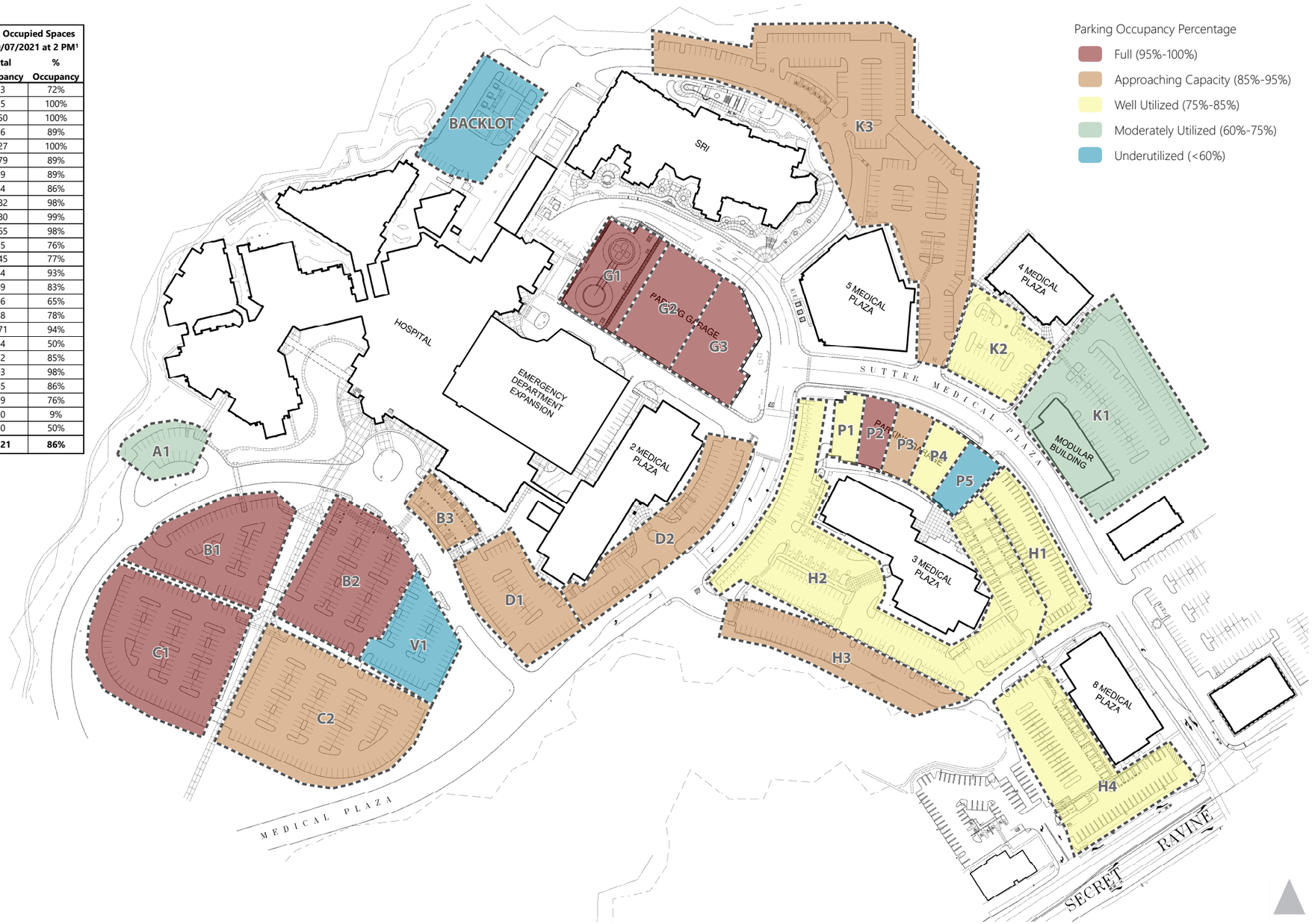
Figure 1

Peak Parking Utilization by Lot
Morning Peak Period (11am) on Tuesday, October 5, 2021

SRMC CAMPUS PARKING PLAN SUMMARY OCTOBER 2021

Lot	Type of Parking								Total Occupied Spaces on 10/07/2021 at 2 PM[1]	
	Standard	Handicap	Physician	Carpool	Valet	Motorcycle	RV	Total	Total Occupancy	% Occupancy
A1	8	2	8					18	13	72%
B1	75							75	75	100%
B2	141	9						150	150	100%
B3		18						18	16	89%
C1	127							127	127	100%
C2	137			23	42			202	179	89%
D1			5	50				55	49	89%
D2	38	13						51	44	86%
G1	84	11	84			6		185	182	98%
G2	181							181	180	99%
G3	169							169	165	98%
H1	39			20				59	45	76%
H2	134	37	17					188	145	77%
H3	36				22			58	54	93%
H4	44	16	23					83	69	83%
K1	85	5	8				4	102	66	65%
K2	17	7	12					36	28	78%
K3	162	20						182	171	94%
V1	28							28	14	50%
P1	57	2	22	4				85	72	85%
P2	88	1		6				95	93	98%
P3	91	2		6				99	85	86%
P4	96	2		6				104	79	76%
P5	100	2		6				108	10	9%
BACKLOT	20							20	10	50%
TOTAL	1957	147	179	121	64	6	4	2478	2121	86%

[1] On the same day at 11:00 AM, occupancy was also 86% (2,121 vehicles).



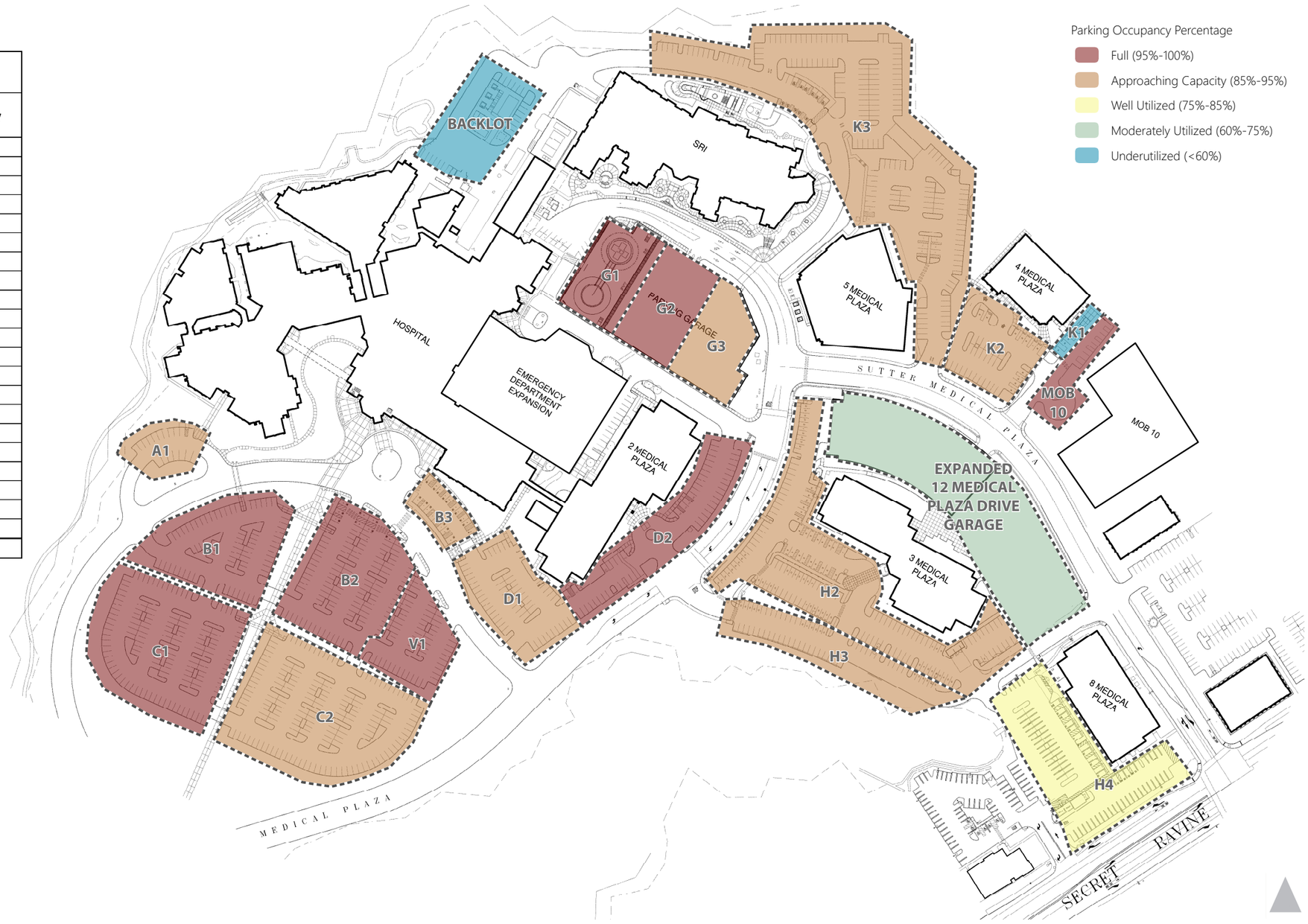
N:\2021 Projects\4104.00_Roseville_SRMC_MOB_Parking\Graphics\GIS\MXD\Fig02_ThursdayPM.mxd

Figure 2

Peak Parking Utilization by Lot
Afternoon Peak Period (2pm) on Thursday, October 7, 2021

SRMC CAMPUS - PROJECTED PEAK OCCUPANCY

Lot	Total Spaces	Projected Peak Occupancy	
		Total Occupancy	% Occupancy
A1	18	17	94%
B1	75	75	100%
B2	150	150	100%
B3	18	17	94%
C1	127	127	100%
C2	202	190	94%
D1	55	52	95%
D2	51	49	96%
G1	185	182	98%
G2	181	181	100%
G3	169	150	89%
H2	154	141	92%
H3	58	55	95%
H4	83	65	78%
K1	3	1	33%
MOB 10	8	8	100%
K2	36	34	94%
K3	182	172	95%
V1	28	28	100%
Expanded 12 Medical Plaza Drive Garage	1,047	783	75%
BACK LOT	20	7	35%
TOTAL	**2,850**	**2,484**	**87%**



N:\2021 Projects\4104.00_Roseville_SRMC_MOB_Parking\Graphics\GIS\MXD\Fig03_PeakOccupancy.mxd

Figure 3

Peak Parking Utilization by Lot
Projected Peak Occupancy with MOB 10 (Phase 2)
and Expanded 12 Medical Plaza Drive Garage

Prepared by National Data & Surveying Services

Parking Study

Location: 1 Medical Plaza Dr
City: Roseville, CA

Date: 10/5/2021
Day: Tuesday

LOT	RESTRICTION	SPACES	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM
A1	Patient Parking Only 60 Min	8	6	8	7	8	7	6	8	6
A1	Handicap	2	2	2	2	2	1	1	1	1
A1	Doctor Only	8	8	8	8	8	8	8	8	5
B1	Visitor	75	75	75	75	75	75	75	75	72
B2	Visitor	141	141	141	141	141	141	141	138	128
B2	Handicap	9	8	8	9	9	8	9	9	9
B3	Handicap	18	13	18	17	17	17	18	16	13
BL	Ambulance	3	0	1	1	1	1	1	3	1
BL	Sutter Vehicles Only	1	1	1	1	1	1	1	1	1
BL	Open Area		4	6	5	5	4	4	4	2
C1	Staff	127	127	127	127	127	127	127	122	78
C2	Staff	137	137	137	137	137	137	136	135	90
C2	Carpool	23	23	23	23	23	23	23	23	21
C2	Valet/Overflow Vehicles		23	29	30	34	35	34	42	3
D1	Radiology Patients Only	7	5	4	6	6	6	5	6	7
D1	Doctor	5	5	5	5	5	5	5	5	5
D1	Ambulance	2	0	0	0	0	0	0	0	0
D1	Loading (Permit)	1	0	1	1	1	1	1	1	1
D1	Patient/Doctor Only	40	38	40	40	40	39	40	39	37
D2	Regular	33	33	33	33	33	33	33	32	31
D2	Handicap	13	11	13	13	12	12	11	11	11
D2	Radiation/Oncology Patient Only	4	0	1	1	3	3	4	4	4
D2	Prop Man	1	1	1	1	1	1	0	0	1
G1	Regular	38	38	38	38	38	38	38	37	32
G1	Handicap	11	5	8	11	10	11	9	9	7
G1	ER Patient	43	37	40	42	43	41	42	42	33
G1	Physician	84	81	81	83	82	84	84	83	78
G1	Security	2	2	2	2	2	1	2	2	2
G1	Reserved	1	0	0	0	0	0	0	1	1
G1	Motorcycle	6	5	5	6	6	6	6	4	3
G2	Regular	181	181	181	181	181	181	181	180	135
G3	Regular	169	93	144	150	161	162	160	158	125
H1	Regular	39	21	30	33	35	36	37	38	37
H1	Vanpool	20	5	6	7	5	4	4	4	5
H2	Regular	122	90	97	117	110	101	120	112	97
H2	Handicap	37	14	22	23	26	15	19	20	17
H2	Respiratory Clinic Only	9	4	5	6	6	5	5	6	4
H2	OB Physician	5	3	3	4	3	2	3	4	4
H2	Physician Only	12	7	7	7	9	9	10	12	11
H2	Passenger Loading	3	1	0	0	0	0	0	0	1
H3	Regular	36	27	31	36	32	28	36	34	33
H3	Valet Parking	22	9	16	18	17	7	15	15	14

H4	Regular	**41**	37	39	38	34	29	41	34	35
H4	Handicap	**16**	7	13	13	14	13	14	13	15
H4	Physician Only	**23**	11	12	12	13	11	15	9	9
H4	Passenger Loading	**3**	0	0	0	0	0	0	0	0
K1	Regular	**60**	44	50	48	45	45	46	39	24
K1	Handicap	**5**	1	1	2	1	1	1	1	1
K1	MD Only	**8**	8	8	7	7	4	4	3	2
K1	Staff	**20**	9	12	16	11	10	9	6	5
K1	Deliver	**2**	0	0	0	0	1	1	1	1
K1	RV	**4**	3	7	3	4	5	3	3	2
K1	Golf	**3**	1	0	1	1	0	0	0	0
K2	Regular	**14**	14	14	14	11	14	12	13	10
K2	Handicap	**7**	2	6	5	3	1	0	1	1
K2	Surgery MD	**12**	11	11	12	8	8	10	6	4
K2	Patient Pick Up	**3**	3	3	3	0	2	1	2	3
K3	Regular	**130**	130	130	129	129	129	129	130	117
K3	Handicap	**20**	10	12	14	11	12	14	9	8
K3	Reserved Vendor Only	**16**	16	16	15	15	16	15	15	12
K3	Patient Only	**13**	13	13	13	12	12	13	12	10
K3	Reserved SRI Family Training	**3**	2	3	1	1	2	3	3	3
P1	Regular	**45**	41	43	45	45	45	45	45	45
P1	EV Charge	**10**	2	8	9	10	10	10	10	10
P1	Vanpool	**4**	4	4	4	4	4	4	4	4
P1	Cleanair	**2**	2	2	2	2	2	2	2	2
P1 (Dead End)	Physician Parking Only	**22**	22	21	20	18	18	17	18	15
P1 (Dead End)	Handicap	**2**	0	0	1	1	1	1	2	1
P2	Regular	**86**	80	80	85	84	86	86	83	84
P2	Handicap	**1**	1	1	1	0	1	1	1	1
P2	Vanpool	**6**	6	6	6	6	6	6	6	6
P2	Cleanair	**2**	2	2	2	2	2	2	2	2
P3	Regular	**89**	78	85	87	88	89	87	85	86
P3	Handicap	**2**	0	0	1	2	1	0	0	0
P3	Vanpool	**6**	0	0	0	4	4	4	4	4
P3	Cleanair	**2**	2	2	2	2	2	2	2	2
P4	Regular	**94**	79	80	85	72	69	82	78	80
P4	Handicap	**2**	0	0	0	0	0	0	0	0
P4	Vanpool	**6**	3	3	3	3	3	3	4	2
P4	Cleanair	**2**	2	2	2	2	2	2	2	2
P5	Regular	**98**	7	8	10	11	11	18	29	25
P5	Handicap	**2**	0	0	0	0	0	0	0	0
P5	Vanpool	**6**	0	0	0	0	0	0	0	0
P5	Cleanair	**2**	0	0	0	0	0	0	0	0
V1	Patient/Visitor Only	**28**	8	16	28	28	24	18	17	13

Notes: **K1** - There are intervals where occupancies exceeded for RV spaces because regular cars parked on the spaces instead.

Prepared by National Data & Surveying Services

Parking Study

Location: 1 Medical Plaza Dr
City: Roseville, CA

Date: 10/7/2021
Day: Thursday

LOT	RESTRICTION	SPACES	9:00 AM	10:00 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM
A1	Patient Parking Only 60 Min	8	3	6	5	4	4	6	4	7	7	6
A1	Handicap	2	2	2	2	2	2	2	2	2	1	1
A1	Doctor Only	8	2	2	2	4	3	7	6	4	5	4
B1	Visitor	75	75	75	75	75	74	74	74	75	75	73
B2	Visitor	141	140	139	140	140	139	141	140	141	138	119
B2	Handicap	9	8	7	9	9	9	9	8	9	9	7
B3	Handicap	18	15	16	17	14	14	13	18	16	15	15
BL	Ambulance	4	0	1	1	1	1	0	1	0	1	2
BL	Sutter Vehicles Only	1	1	1	0	0	1	1	1	1	1	1
BL	Open Area		13	16	13	15	15	14	12	9	12	9
C1	Staff	127	127	127	127	126	127	127	126	127	124	79
C2	Staff	137	137	137	137	137	137	137	136	137	135	115
C2	Carpool	23	23	23	23	23	23	23	21	23	22	20
C2	Valet/Overflow Vehicles		4	12	16	15	18	17	20	19	26	11
D1	Radiology Patients Only	7	2	5	7	5	6	5	4	5	5	7
D1	Doctor	5	3	4	4	3	3	4	4	4	4	2
D1	Ambulance	2	0	0	1	0	0	0	0	0	0	0
D1	Loading (Permit)	1	0	0	0	0	1	0	0	0	0	0
D1	Patient/Doctor Only	40	40	38	40	39	37	36	39	40	39	37
D2	Regular	33	30	30	31	30	28	27	33	32	33	30
D2	Handicap	13	13	12	12	9	10	9	11	10	13	11
D2	Radiation/Oncology Patient Only	4	4	4	3	2	2	3	4	2	4	4
D2	Prop Man	1	0	0	1	0	0	0	0	0	0	0
G1	Regular	38	38	38	38	38	38	38	36	37	35	27
G1	Handicap	11	10	11	11	11	10	10	10	10	11	11
G1	ER Patient	43	43	42	43	43	43	42	41	43	41	30
G1	Physician	84	84	84	83	84	84	83	80	84	81	74
G1	Security	2	2	2	2	2	2	1	2	2	2	2
G1	Reserved	1	0	0	0	0	0	0	0	0	0	0
G1	Motorcycle	6	2	2	3	3	4	4	4	6	4	4
G2	Regular	181	181	181	181	181	179	178	178	180	169	126
G3	Regular	169	109	134	142	145	151	149	152	165	155	131
H1	Regular	39	30	33	29	28	26	26	31	28	27	15
H1	Vanpool	20	17	18	19	18	18	18	18	17	11	9
H2	Regular	122	87	96	97	99	78	63	81	106	92	87
H2	Handicap	37	15	24	27	23	24	19	18	22	16	17
H2	Respiratory Clinic Only	9	4	4	4	6	5	7	6	5	6	7
H2	OB Physician	5	2	2	2	3	3	2	2	3	2	2
H2	Physician Only	12	6	9	10	9	6	5	8	9	9	8
H2	Passenger Loading	3	0	0	1	1	0	2	0	0	0	0
H3	Regular	36	34	34	32	31	27	24	30	34	33	22
H3	Valet Parking	22	20	20	18	10	6	4	6	20	10	1

H4	Regular	**41**	41	40	37	35	37	30	35	36	33	29
H4	Handicap	**16**	8	12	10	11	12	15	14	13	10	9
H4	Physician Only	**23**	16	14	13	13	13	13	18	18	14	7
H4	Passenger Loading	**3**	0	2	1	2	1	2	1	2	1	1
K1	Regular	**60**	46	47	49	50	44	44	43	46	35	21
K1	Handicap	**5**	1	1	2	2	3	2	2	1	2	1
K1	MD Only	**8**	7	8	8	8	8	7	7	6	5	4
K1	Staff	**20**	5	4	7	7	9	7	7	5	7	5
K1	Deliver	**2**	1	1	1	1	1	1	1	1	1	1
K1	RV	**4**	6	6	7	8	6	5	5	6	3	2
K1	Golf	**3**	1	1	1	1	1	1	1	1	0	0
K2	Regular	**14**	11	14	14	14	12	11	14	14	11	11
K2	Handicap	**7**	3	3	0	0	0	0	3	2	1	0
K2	Surgery MD	**12**	12	11	11	11	10	9	9	9	7	8
K2	Patient Pick Up	**3**	3	1	2	2	2	1	3	3	2	0
K3	Regular	**130**	129	130	130	129	124	113	121	128	130	97
K3	Handicap	**20**	11	11	12	13	8	15	12	14	14	9
K3	Reserved Vendor Only	**16**	16	16	16	16	16	15	14	13	16	16
K3	Patient Only	**13**	12	13	12	12	11	9	10	13	12	12
K3	Reserved SRI Family Training	**3**	1	2	3	3	2	3	3	3	3	3
P1	Regular	**45**	42	45	45	42	41	40	38	41	42	31
P1	EV Charge	**10**	10	10	10	10	10	9	9	9	8	8
P1	Vanpool	**4**	4	4	4	4	4	4	4	4	4	4
P1	Cleanair	**2**	2	2	2	2	2	2	2	2	2	2
1 (Dead End	Physician Parking Only	**22**	22	22	20	18	17	18	18	15	18	12
1 (Dead End	Handicap	**2**	1	0	1	1	1	1	1	1	2	2
P2	Regular	**86**	86	86	86	82	82	81	84	85	86	51
P2	Handicap	**1**	0	0	0	0	0	0	0	0	0	0
P2	Vanpool	**6**	6	6	6	6	6	6	6	6	6	5
P2	Cleanair	**2**	2	2	2	2	2	2	2	2	2	0
P3	Regular	**89**	86	81	89	89	84	78	77	77	85	65
P3	Handicap	**2**	1	1	0	0	0	0	0	0	0	0
P3	Vanpool	**6**	6	6	6	6	6	6	6	6	6	6
P3	Cleanair	**2**	2	2	2	2	2	2	2	2	1	0
P4	Regular	**94**	56	76	74	75	74	71	75	72	69	56
P4	Handicap	**2**	0	0	0	0	0	0	0	0	0	0
P4	Vanpool	**6**	6	6	6	6	6	6	6	6	6	4
P4	Cleanair	**2**	1	1	1	1	1	1	1	1	2	0
P5	Regular	**98**	3	7	8	6	5	5	8	10	12	11
P5	Handicap	**2**	0	0	0	0	0	0	0	0	0	0
P5	Vanpool	**6**	0	0	0	0	0	0	0	0	0	0
P5	Cleanair	**2**	0	0	0	0	0	0	0	0	0	0
V1	Patient/Visitor Only	**28**	4	7	15	16	18	18	20	14	12	8

Notes: **K1** - There are intervals where occupancies exceeded for RV spaces because regular cars parked on the spaces instead.

SUTTER ROSEVILLE MEDICAL CENTER
CAMPUS MASTER PLAN - SQUARE FOOTAGE SUMMARY

CURRENT ACUTE USES	**EXISTING SF**	**PROPOSED SF**	**SUB TOTAL**
Existing Hospital Acute Spaces:	320,800	NC	
Acute Use in MOB 4:	14,992	NC	
Bed Tower:	90,240	NC	
Well-Baby Nursery:	2,037	NC	
#6 MEDICAL PLAZA (ARC)	105,730	NC	
NICU	12,800	NC	
ED/Critical Care Exppansion (2016)		98,368	
Total Current Acute Uses	**546,599**	**98,368**	**644,967**
CURRENT OUTPATIENT USES / MOB'S			
Outpatient uses in Acute Space:	12,015	NC	
#2 MEDICAL PLAZA	76,000	NC	
#3 MEDICAL PLAZA	62,075	NC	
#4 MEDICAL PLAZA	14,467	NC	
#5 MEDICAL PLAZA	60,000	NC	
#8 MEDICAL PLAZA	60,000	NC	
Total Current Outpatient Use / MOB	**284,557**		**284,557**
Campus Grand total 2016	**831,156**		
Campus Grand total after 2020			**929,524**
Total for exisint Conditional Use Permit			**1,100,000**
Remaing square footage for future			**170,476**

T|L|G Thomas Law Group

TINA A. THOMAS

AMY R. HIGUERA
CHRISTOPHER J. BUTCHER
ANDREW M. SKANCHY
Senior Counsel

SAMUEL D. BACAL-GRAVES

455 CAPITOL MALL, SUITE 801
SACRAMENTO, CA 95814

ONE KAISER PLAZA, SUITE 875
OAKLAND, CA 94612

NICHOLAS S. AVDIS
Of Counsel

Telephone: (916) 287-9292 Facsimile: (916) 737-5858
www.thomaslaw.com

June 16, 2022

Greg Bitter
Planning Manager
City of Roseville
311 Vernon Street
Roseville, CA 95678

Re: NERSP PCL 25 - Sutter Medical Office Building 7 (MOB 7), PL22-0061

Dear Mr. Bitter:

Our firm represents Sutter Health and its affiliated entities, including Sutter Valley Hospitals, dba Sutter Roseville Medical Center (SRMC) concerning the SRMC Office Building 7 (MOB 7) Project, which will come before the Planning Commission on June 23, 2022. On May 12, 2022, the Planning Commission unanimously approved the Sutter Parking Garage Expansion Project (File PL22-0024) and adopted the Negative Declaration analyzing the Sutter Parking Garage Expansion Project. As you are aware, shortly before that Planning Commission hearing, a letter was submitted by Laborers International Union of North America, Local Union 185 ("Union"), challenging the adequacy of the Negative Declaration to support approval of the Sutter Parking Garage Expansion Project. City staff reviewed and responded to the Union's comment letter prior to the Planning Commission hearing on that Sutter Parking Garage Expansion Project.

As authorized by CEQA, the City evaluated both the Sutter Parking Garage Expansion Project and MOB 7 Project in a single Negative Declaration. While the Union's comment letter challenges the City's approval of the Sutter Parking Garage Expansion Project, I have reviewed the Union's comment letter and the City's responses to evaluate the adequacy of the Negative Declaration as it relates to the Planning Commission's consideration of the MOB 7 Project.

The Negative Declaration thoroughly evaluates all potential environmental impacts of the MOB 7 Project and finds that the Project does not have the potential to result in any significant impacts on the environment. City staff's responses to the Union's comment letter on the Sutter Parking Garage Expansion Project demonstrate that the Negative Declaration is adequate to comply with CEQA for both the Sutter Parking Garage Expansion Project and MOB 7. While I agree fully with City staff's responses to the Union's comment letter, as explained further below, there are additional reasons that the Union's comments lack merit.

With respect to the Union's assertion relating to indoor air quality impacts from emissions of formaldehyde, the Union cites to PCAPD's 10-in-1 million cancer risk threshold. City staff correctly determined that no substantial evidence supports the conclusion that the Sutter Parking Garage Expansion Project and/or MOB 7 Project has the potential to exceed this threshold. Additionally, it is important to note that the 10-in-1 million threshold is only applicable to a "new source" project and is not applicable to a "new receptor" project. (PCAPCD CEQA Guidelines, Appendix G[1], p. 93.) A "new source" for purposes of this distinction "is a project that can cause an adverse health impact *on people already living or working nearby*." (*Id*., p. 91 [emphasis added].) By contrast, in the Union's comment letter, the Union alleges impacts on future employees of the proposed project. For purposes of the PCAPCD analysis, that means this is a "new receptor" project. (*Ibid*.) The PCAPCD Guide appropriately recognizes that CEQA does not require analysis of impacts on new receptor projects, but only impacts of new sources on the environment. (*Ibid*.) Thus, the threshold relied on by the Union is inapplicable. However, as correctly determined by City staff, no substantial evidence supports the conclusion that the Sutter Parking Garage Expansion Project and/or MOB 7 Project would result in an exceedance of this (inapplicable) threshold.

With respect to the Union's assertion relating to construction and operational noise impacts, the Union's comment letter does not provide any substantial evidence to support the assertion that the Sutter Parking Garage Expansion Project and/or MOB 7 Project have the potential to result in significant noise impacts. Instead, the Union's comment and attached letter by Wilson Ihrig consists of general observations and a recommendation that the City consider the potential for noise impacts further. However, an expert whose comments "consist largely of general observations… and topics allegedly unaddressed or inadequately addressed in the MND and project materials.... cannot, in and of themselves, create a fair argument without some nexus with the project itself." (*Clews Land & Livestock, LLC v. City of San Diego* (2017) 19 Cal.App.5th 161, 194.) "'Substantial evidence' is defined in the CEQA guidelines to include 'expert opinion supported by facts.' It does not include 'argument, speculation, unsubstantiated opinion or narrative.'" (*Apt. Ass'n of Greater L.A. v. City of L.A.* (2001) 90 Cal.App.4th 1162, 1176 [emphasis added].) As such, "an expert's opinion which says nothing more than 'it is reasonable to assume' that something 'potentially . . . may occur' does not constitute substantial evidence." (*Ibid*.) Moreover, as explained by City staff, the City's noise standards ensure that the Sutter Parking Garage Expansion Project and MOB 7 Project do not have the potential to result in significant noise impacts and this conclusion is supported by City staff's conclusions based on existing noise levels associated with ongoing operations on the Sutter Roseville Medical Center that are located closer to adjacent sensitive receptors than the proposed Sutter Parking Garage Expansion Project and MOB 7 Project.

With respect to the Union's assertion relating to GHG emissions, under CEQA Guidelines section 15152(d), the scope of analysis for later projects tiered from an initial EIR is limited to impacts that "(1) Were not examined as significant effects on the environment in the prior EIR;

[1] https://www.placer.ca.gov/DocumentCenter/View/2044/Appendix-G-Preparing-a-Health-Risk-Assessment-for-Land-Use-Projects-PDF

or [¶] (2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means." The 2035 General Plan Update includes a detailed evaluated of GHG emissions and concludes that "[t]here are no additional feasible mitigation measures available to address this impact." Measures identified by the commenter to address GHG emissions are consistent with the measures already included in, and required by, the 2035 General Plan Update. Therefore, City staff is correct that the approach used by the City in the Negative Declaration complies fully with CEQA.

Finally, with respect to the Union's assertion relating to renewable energy, the Union is incorrect that the Negative Declaration failed to address the topic. The Negative Declaration includes a discussion of the grid's shift to renewables. (Neg Dec, p. 20.) As City staff correctly notes, the CEQA provisions and case law relied on by the Union concern the requirements applicable to Environmental Impact Reports (EIRs) and not Negative Declarations and are, thus, inapplicable. Moreover, even if these requirements were applicable to Negative Declarations, nothing in CEQA requires either EIRs or Negative Declarations to address on-site renewable generation. As explained in Appendix F of the CEQA Guidelines, an EIR should address energy use in the context of CEQA's goal of increasing reliance on renewable energy sources. The goal identified in Appendix F can be achieved through either or both onsite and offsite measures. Here, the Sutter Parking Garage Expansion Project and MOB 7 Project are consistent with this goal because, as the Negative Declaration expressly finds, the projects would not impede the City's attainment of the Renewable Portfolio Standards.

For all of the reasons explained by City staff prior to the Planning Commission's unanimous approval of the Sutter Parking Garage Expansion Project on May 12 and for the additional reasons addressed above, we believe the Negative Declaration is adequate and should be adopted by the Planning Commission as part of its upcoming consideration of the MOB 7 Project.

Respectfully,
THOMAS LAW GROUP



Christopher J. Butcher
Attorney for Sutter Health

NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION

Notice is hereby given that, as Lead Agency, the City of Roseville, Development Services Department, Planning Division has prepared an Initial Study leading to a Negative Declaration for the project referenced below. This Negative Declaration is available for public review and comment.

Project Title/File#: NERSP PCL 25 – Sutter Parking Garage Expansion & Sutter MOB 7; File#PL22-0024 and PL22-0061

Project Location: 12 and 7 Medical Plaza, Roseville, Placer County; 046-060-034-000

Project Owner: Sutter Valley Hospitals; P.O. Box 619051 Roseville, CA 95661

Project Applicant: Tony Amato & Sarah Bergman, Dreyfuss + Blackford Architecture

Project Planner: Escarlet Mar, Associate Planner – City of Roseville; (916) 774-5247

Project Description:
The project site is not identified on any list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5

Document Review and Availability: The public review and comment period begins on **April 12, 2022** and ends on **May 2, 2022**. The Negative Declaration may be reviewed online at: https://www.roseville.ca.us/environmentaldocuments under Private Development Projects.

Written comments on the adequacy of the Negative Declaration may be submitted to Escarlet Mar, Associate Planner at emar@roseville.ca.us or in person at 311 Vernon Street, Roseville, CA 95678 (Monday—Friday, 8 a.m. to 4 p.m.), and must be received no later than 5:00 pm on May 2, 2022.

This project will be scheduled for a public hearing before the City's Planning Commission. At this hearing, the Planning Commission will consider the Negative Declaration and associated project entitlements. The tentative hearing date is May 12, 2022.

Mike Isom
Development Services Director

Dated: April 11, 2022

Publish: April 12, 2022

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT – PLANNING DIVISION
311 Vernon Street, Roseville, CA 95678 (916) 774-5276

NEGATIVE DECLARATION

Project Title/File Number:	NERSP PCL 25 – Sutter Parking Garage Expansion & Sutter MOB 7;File#PL22-0024 and PL22-0061
Project Location:	12 and 7 Medical Plaza, Roseville, Placer County; 046-060-034-000
Project Applicant:	Tony Amato & Sarah Bergman, Dreyfuss + Blackford Architecture; (916) 453-1234; 3540 Folsom Boulevard, Sacramento CA 95816
Property Owner:	Sutter Valley Hospitals; P.O. Box 619051 Roseville, CA 95661
Lead Agency Contact Person:	Escarlet Mar, Associate Planner - City of Roseville; (916) 774-5247
Date:	April 12, 2022

Project Description:

The project site is within the Northeast Roseville Specific Plan area. The two (2) proposed buildings are located within the existing 49-acre Sutter Roseville Medical Center campus, specifically on the northeastern area of the campus. The campus includes frontage on Secret Ravine Parkway and an entrance along East Roseville Parkway; the campus is predominately surrounded by open space along the south and west portions of the campus. Throughout the years the campus has been developed with a main hospital building, acute care buildings, and outlying medical buildings and parking garages. In 2006, the Planning Commission approved a Conditional Use Permit which authorized expansion of the campus from the originally approved 804,000 square feet to 1,100,000 square feet. At full buildout, the Sutter Roseville Medical Center would contain a total of 738,500 square feet of licensed acute care spaces, 361,500 square feet of medical office building space for non-acute care and physician's offices, and a total of 3,864 surface and parking structure spaces (parking space square footage is not included in the 1,100,000 square feet). The two (2) proposed projects are both within the previously analyzed and approved campus square footage. The applicant requests approval of two (2) Design Review Permits for the expansion of an existing five-story parking garage with a six-story parking addition and a new medical office building (MOB). The garage expansion is proposed to be located immediately to the east of the existing five-story parking garage and be connected to the future parking garage at each level; this would allow vehicles and pedestrians to go between the two sides. The new six-story parking addition would use the existing vehicles ramps on the existing parking garage to access each level of the new expansion. The architecture design of the proposed expansion would emulate the existing parking garage design, the same finish materials and color palette are proposed to be used on the proposed expansion. The proposed MOB 7 would be located along the east edge of the campus, north of the existing five-story parking garage and east of the existing MOB 4. The MOB site is surrounded by an existing private dental clinic to the south and an apartment complex to the east. The MOB project site is currently occupied by a temporary modular building and sterilization trailer, which both are proposed to be removed with the construction of MOB 7. The MOB 7 is proposed to be constructed in two-phases, Phase 1 would consists of the four-story building and Phase 2 would consist of a two-story addition on the front of the building. A private outdoor area is proposed along the east side of MOB 7, this private outdoor area would be used by the faculty and students of the new GME program. The overall architectural and site design of the project would emulate the existing campus aesthetics. As part of the MOB 7 construction, Sutter proposes a new Graduate Medical Education (GME) program on the first floor of MOB 7. As such, the applicant requests approval of a Conditional Use Permit to permit the new GME program. The project site where the parking garage expansion and the new medical office building are proposed have been previously disturbed for surface parking.

DECLARATION

The Planning Manager has determined that the above project will not have significant effects on the environment and therefore does not require preparation of an Environmental Impact Report. The determination is based on the attached initial study and the following findings:

A. *The project will not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species, reduce the number or restrict the range of rare or endangered plants or animals or eliminate important examples of the major periods of California history or prehistory.*
B. *The project will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.*
C. *The project will not have impacts, which are individually limited, but cumulatively considerable.*
D. *The project will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly.*
E. *No substantial evidence exists that the project may have a significant effect on the environment.*
F. *This Negative Declaration reflects the independent judgment of the lead agency.*

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT–PLANNING DIVISION

311 Vernon St, Roseville, CA 95678 (916) 774-5276

INITIAL STUDY & ENVIRONMENTAL CHECKLIST

Project Title/File Number:	NERSP PCL 25 – Sutter Parking Garage Expansion & Sutter MOB 7; File#PL22-0024 and PL22-0061
Project Location:	12 and 7 Medical Plaza, Roseville, Placer County; 046-060-034-000
Project Description:	The proposed project (Project) evaluated in this Initial Study consist of two (2) Design Review Permits (DRP) and one (1) Conditional Use Permit. The applicant proposes to expand the existing five-story garage located along Medical Plaza (Figure 2). The expansion is proposed directly to the east of the existing five-story parking garage, where currently a surface parking lot for the campus exists. The proposed expansion will consist of six-levels tied into the existing five-level parking garage. The proposed six-story parking garage will resemble the existing parking garage through the use of the same color palette and building materials. The second DRP is for the construction of a 100,000 square foot medical office building constructed in two phases; Phase 1 totaling 85,000 square feet would be constructed immediately after City approval and Phase 2 totaling 15,000 square feet in size would be constructed at a later date. The new MOB proposes a new accessible drop off zone with an overhead canopy, and accessible parking stalls immediately in front of the proposed building. The proposed project is located along the east edge of the campus, northeast of the existing five-story parking garage, north of an existing private dental clinic, and south of an existing apartment complex. The site is currently occupied by a temporary modular building and sterilization trailer, which are both slated to be removed as part of this project. The proposed MOB 7 will house outpatient healthcare clinics and the Graduate Medical Education program, a training program for resident physicians.
Project Applicant:	Tony Amato & Sarah Bergman, Dreyfuss + Blackford Architecture; (916) 453-1234; 3540 Folsom Boulevard, Sacramento CA 95816
Property Owner:	Sutter Valley Hospitals; P.O. Box 619051 Roseville, CA 95661
Lead Agency Contact:	Escarlet Mar, Associate Planner – City of Roseville; (916) 774-5247

This initial study has been prepared to identify and assess the anticipated environmental impacts of the above described project application. The document relies on previous environmental documents (see Attachments) and site-specific studies prepared to address in detail the effects or impacts associated with the project. Where documents were submitted by consultants working for the applicant, City staff reviewed such documents in order to determine whether, based on their own professional judgment and expertise, staff found such documents to be credible and persuasive. Staff has only relied on documents that reflect their independent judgment, and has not accepted at face value representations made by consultants for the applicant.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA), (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The initial study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to prepare an EIR. If the agency finds no substantial evidence that the project or any of its aspects may cause a significant effect on the environment, a negative declaration shall be prepared. If in the course of analysis, the agency recognizes that the project may have a significant impact on the environment, but that by incorporating specific mitigation measures to which the applicant agrees, the impact will be reduced to a less than significant effect, a mitigated negative declaration shall be prepared.

Table of Contents

Project Description **4**

City of Roseville Mitigation Ordinances, Guidelines, and Standards **6**

Other Environmental Documents Relied Upon **7**

Explanation of Initial Study Checklist **8**

Initial Study Checklist

I.	Aesthetics	**8**
II.	Agricultural & Forestry Resources	**11**
III.	Air Quality	**13**
IV.	Biological Resources	**15**
V.	Cultural Resources	**19**
VI.	Energy	**20**
VII.	Geology and Soils	**21**
VIII.	Greenhouse Gases	**24**
IX.	Hazards and Hazardous Materials	**26**
X.	Hydrology and Water Quality	**28**
XI.	Land Use and Planning	**31**
XII.	Mineral Resources	**32**
XIII.	Noise	**32**
XIV.	Population and Housing	**34**
XV.	Public Services	**35**
XVI.	Recreation	**36**
XVII.	Transportation	**37**
XVIII.	Tribal Cultural Resources	**40**
XIX.	Utilities and Service Systems	**41**
XX.	Wildfire	**43**
XXI.	Mandatory Findings of Significance	**44**

Environmental Determination **46**

Attachments **46**

PROJECT DESCRIPTION

Project Location

The approximately 49-acre Sutter Roseville Medical Center is located in the Northeast Roseville Specific Plan area (NERSP). The Sutter Roseville Medical Center campus located east of Secret Ravine Parkway and north of Roseville Parkway (Figure 1). The two (2) projects are located at 7 and 12 Medical Plaza (APN 046-060-034-000). The Parking Garage Expansion site is approximately 0.94 acres in size and contains an existing surface parking lot with lighting and landscaping. The Sutter MOB 7 project site is approximately 1.64 acres in size and is developed with surface parking, lighting, and landscaping; a temporary modular building and sterilization trailer are both currently on the site but are proposed to be removed at the time of the construction of MOB 7. Both project have a land use designation of Business Professional (BP) and a zoning designation of Planned Development for Medical Office (PD457).

Figure 1: Project Location



Background

Location	Zoning	General Plan Land Use	Actual Use of Properties
Site	Planned Development for Medical Office (PD457)	Business Professional (BP)	Surface parking lot and temporary modular building and sterilization trailer
Northeast	Multi-Family Housing (R3)	High Density Residential (HDR)	A multi-family apartment complex

South	PD457	BP	Sutter Roseville Medical Center MOB 6
East	Business Professional (BP/SA-SR)	BP	Medical Offices
West	PD457	BP	Sutter Roseville Medical Center

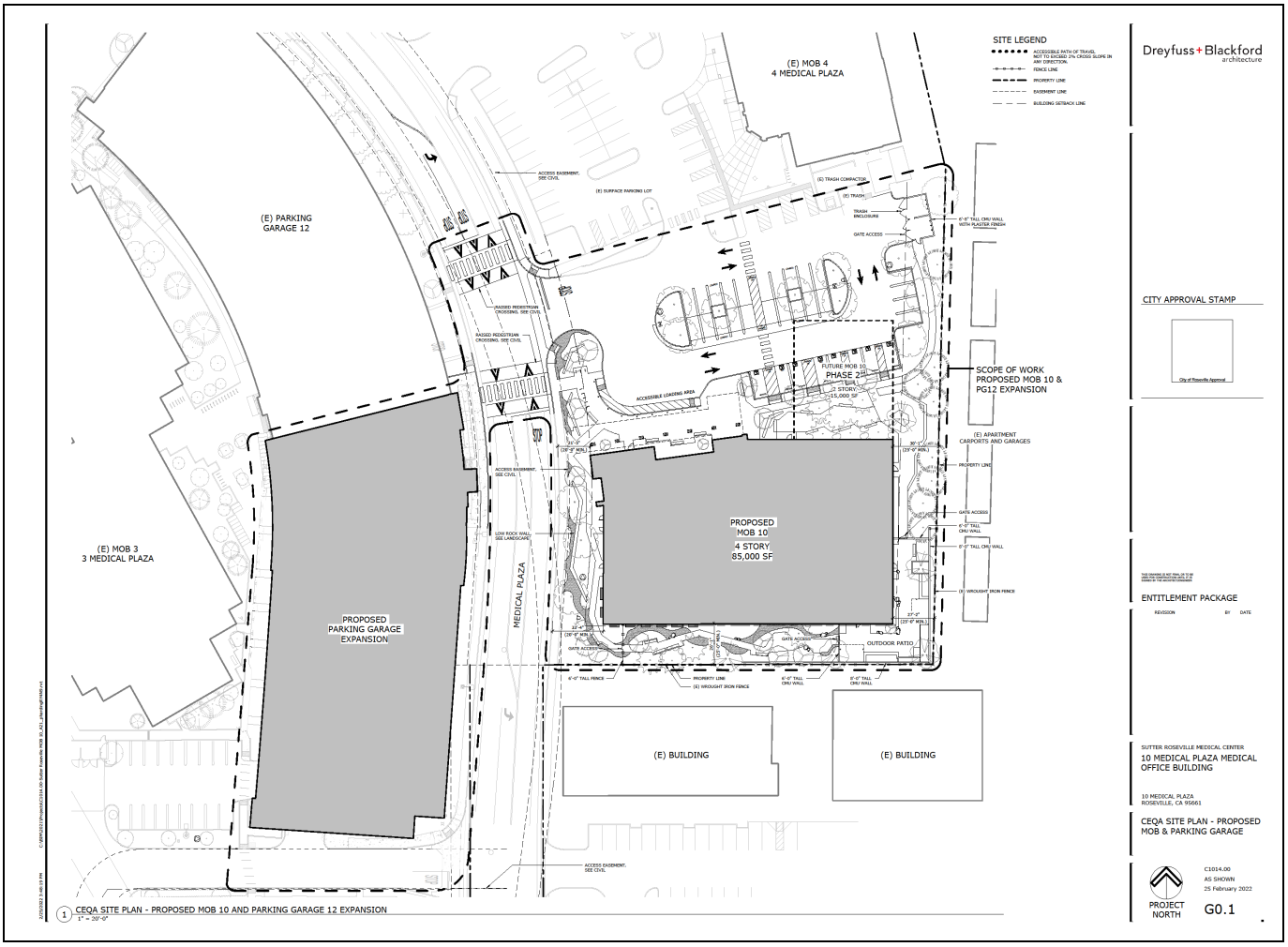
Environmental Setting

Both projects are located in an area of the campus that has been previously disturbed. Both project sites are developed with a surface parking lot, lighting, and landscaping. A temporary modular building and sterilization trailer are both located on the site where the MOB 7 is proposed. Again, both project areas have been previously disturbed and graded as part of the project improvements for the Sutter Roseville Medical Center campus.

Proposed Project

The project site is within the Northeast Roseville Specific Plan area. The two (2) proposed buildings are located within the existing 49-acre Sutter Roseville Medical Center campus, specifically on the northeastern area of the campus. The campus includes frontage on Secret Ravine Parkway and an entrance along East Roseville Parkway; the campus is predominately surrounded by open space along the south and west portions of the campus. Throughout the years the campus has been developed with a main hospital building, acute care buildings, and outlying medical buildings and parking garages. In 2006, the Planning Commission approved a Conditional Use Permit which authorized expansion of the campus from the originally approved 804,000 square feet to 1,100,000 square feet. At full buildout, the Sutter Roseville Medical Center would contain a total of 738,500 square feet of licensed acute care spaces, 361,500 square feet of medical office building space for non-acute care and physician's offices, and a total of 3,864 surface and parking structure spaces (parking space square footage is not included in the 1,100,000 square feet). The two (2) proposed projects are both within the previously analyzed and approved campus square footage. The applicant requests approval of two (2) Design Review Permits for the expansion of an existing five-story parking garage with a six-story parking addition and a new medical office building (MOB). The garage expansion is proposed to be located immediately to the east of the existing five-story parking garage and be connected to the future parking garage at each level; this would allow vehicles and pedestrians to go between the two sides. The new six-story parking addition would use the existing vehicles ramps on the existing parking garage to access each level of the new expansion. The architecture design of the proposed expansion would emulate the existing parking garage design, the same finish materials and color palette are proposed to be used on the proposed expansion. The proposed MOB 7 would be located along the east edge of the campus, north of the existing five-story parking garage and east of the existing MOB 4. The MOB site is surrounded by an existing private dental clinic to the south and an apartment complex to the east. The MOB project site is currently occupied by a temporary modular building and sterilization trailer, which both are proposed to be removed with the construction of MOB 7. The MOB 7 is proposed to be constructed in two-phases, Phase 1 would consists of the four-story building and Phase 2 would consist of a two-story addition on the front of the building (Figure 2). A private outdoor area is proposed along the east side of MOB 7, this private outdoor area would be used by the faculty and students of the new GME program. The overall architectural and site design of the project would emulate the existing campus aesthetics. As part of the MOB 7 construction, Sutter proposes a new Graduate Medical Education (GME) program on the first floor of MOB 7. As such, the applicant requests approval of a Conditional Use Permit to permit the new GME program. The project site where the parking garage expansion and the new medical office building are proposed have been previously disturbed for surface parking.

Figure 2: Project Site Plan



CITY OF ROSEVILLE MITIGATION ORDINANCES, GUIDELINES, AND STANDARDS

For projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, CEQA Guidelines section 15183(f) allows a lead agency to rely on previously adopted development policies or standards as mitigation for the environmental effects, when the standards have been adopted by the City, with findings based on substantial evidence, that the policies or standards will substantially mitigate environmental effects, unless substantial new information shows otherwise (CEQA Guidelines §15183(f)). The City of Roseville adopted CEQA Implementing Procedures (Implementing Procedures) which are consistent with this CEQA Guidelines section. The current version of the Implementing Procedures were adopted in April 2008 (Resolution 08-172), along with Findings of Fact, and were updated in January 2021 (Resolution 21-018). The below regulations and ordinances were found to provide uniform mitigating policies and standards, and are applicable to development projects. The City's Mitigating Policies and Standards are referenced, where applicable, in the Initial Study Checklist.

- Noise Regulation (RMC Ch.9.24)
- Flood Damage Prevention Ordinance (RMC Ch.9.80)
- Traffic Mitigation Fee (RMC Ch.4.44)
- Drainage Fees (Dry Creek [RMC Ch.4.49] and Pleasant Grove Creek [RMC Ch.4.48])

- City of Roseville Improvement Standards (Resolution 02-37 and as further amended)
- City of Roseville Design and Construction Standards (Resolution 01-208 and as further amended)
- Tree Preservation Ordinance (RMC Ch.19.66)
- Internal Guidance for Management of Tribal Cultural Resources and Consultation (Tribal Consultation Policy) (Resolution 20-294)
- Subdivision Ordinance (RMC Title 18)
- Community Design Guidelines
- Specific Plan Design Guidelines:
    - Development Guidelines Del Webb Specific Plan
    - Landscape Design Guidelines for North Central Roseville Specific Plan
    - North Roseville Specific Plan and Design Guidelines
    - Northeast Roseville Specific Plan (Olympus Pointe) Signage Guidelines
    - North Roseville Area Design Guidelines
    - Northeast Roseville Specific Plan Landscape Design Guidelines
    - Southeast Roseville Specific Plan Landscape Design Guidelines
    - Stoneridge Specific Plan and Design Guidelines
    - Highland Reserve North Specific Plan and Design Guidelines
    - West Roseville Specific Plan and Design Guidelines
    - Sierra Vista Specific Plan and Design Guidelines
    - Creekview Specific Plan and Design Guidelines
    - Amoruso Ranch Specific Plan and Design Guidelines
- City of Roseville 2035 General Plan

OTHER ENVIRONMENTAL DOCUMENTS RELIED UPON

- 2035 General Plan Update Final Environmental Impact Report, certified August 5, 2020
- Northeast Roseville Specific Plan Environmental Impact Report (SCH #86042805), adopted March 11, 1987
- Sutter Roseville Medical Center Master Plan Environmental Impact Report (SCH #90020142 and 93092081)

Pursuant to CEQA Guidelines Section 15183, any project which is consistent with the development densities established by zoning, a Community Plan, or a General Plan for which an EIR was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. The 2035 General Plan Update EIR (General Plan EIR) updated all Citywide analyses, including for vehicle miles traveled, greenhouse gas emissions, water supply, water treatment, wastewater treatment, and waste disposal. The proposed project is consistent with the adopted land use designations examined within the environmental documents listed above, and thus this Initial Study focuses on effects particular to the specific project site, impacts which were not analyzed within the EIR, and impacts which may require revisiting due to substantial new information. When applicable, the topical sections within the Initial Study summarize the findings within the environmental documents listed above. The analysis, supporting technical materials, and findings of the environmental document are incorporated by reference, and are available for review at the Civic Center, 311 Vernon Street, Roseville, CA.

EXPLANATION OF INITIAL STUDY CHECKLIST

The California Environmental Quality Act (CEQA) Guidelines recommend that lead agencies use an Initial Study Checklist to determine potential impacts of the proposed project on the physical environment. The Initial Study Checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by this project. This section of the Initial Study incorporates a portion of Appendix G Environmental Checklist Form, contained in the CEQA Guidelines. Within each topical section (e.g. Air Quality) a description of the setting is provided, followed by the checklist responses, thresholds used, and finally a discussion of each checklist answer.

There are four (4) possible answers to the Environmental Impacts Checklist on the following pages. Each possible answer is explained below:

1) A "Potentially Significant Impact" is appropriate if there is enough relevant information and reasonable inferences from the information that a fair argument based on substantial evidence can be made to support a conclusion that a substantial, or potentially substantial, adverse change may occur to any of the physical conditions within the area affected by the project. When one or more "Potentially significant Impact" entries are made, an EIR is required.

2) A "Less Than Significant With Mitigation" answer is appropriate when the lead agency incorporates mitigation measures to reduce an impact from "Potentially Significant" to "Less than Significant." For example, floodwater impacts could be reduced from a potentially-significant level to a less-than-significant level by relocating a building to an area outside of the floodway. The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level. Mitigation measures are identified as MM followed by a number.

3) A "Less Than significant Impact" answer is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant, or the application of development policies and standards to the project will reduce the impact(s) to a less-than-significant level. For instance, the application of the City's Improvement Standards reduces potential erosion impacts to a less-than-significant level.

4) A "No Impact" answer is appropriate where it can be demonstrated that the impact does not have the potential to adversely affect the environment. For instance, a project in the center of an urbanized area with no agricultural lands on or adjacent to the project area clearly would not have an adverse effect on agricultural resources or operations. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited in the Initial Study. Where a "No Impact" answer is adequately supported by the information sources cited in the Initial Study, further narrative explanation is not required. A "No Impact" answer is explained when it is based on project-specific factors as well as generous standards.

All answers must take account of the whole action involved, including off- and on-site, indirect, direct, construction, and operation impacts, except as provided for under State CEQA Guidelines.

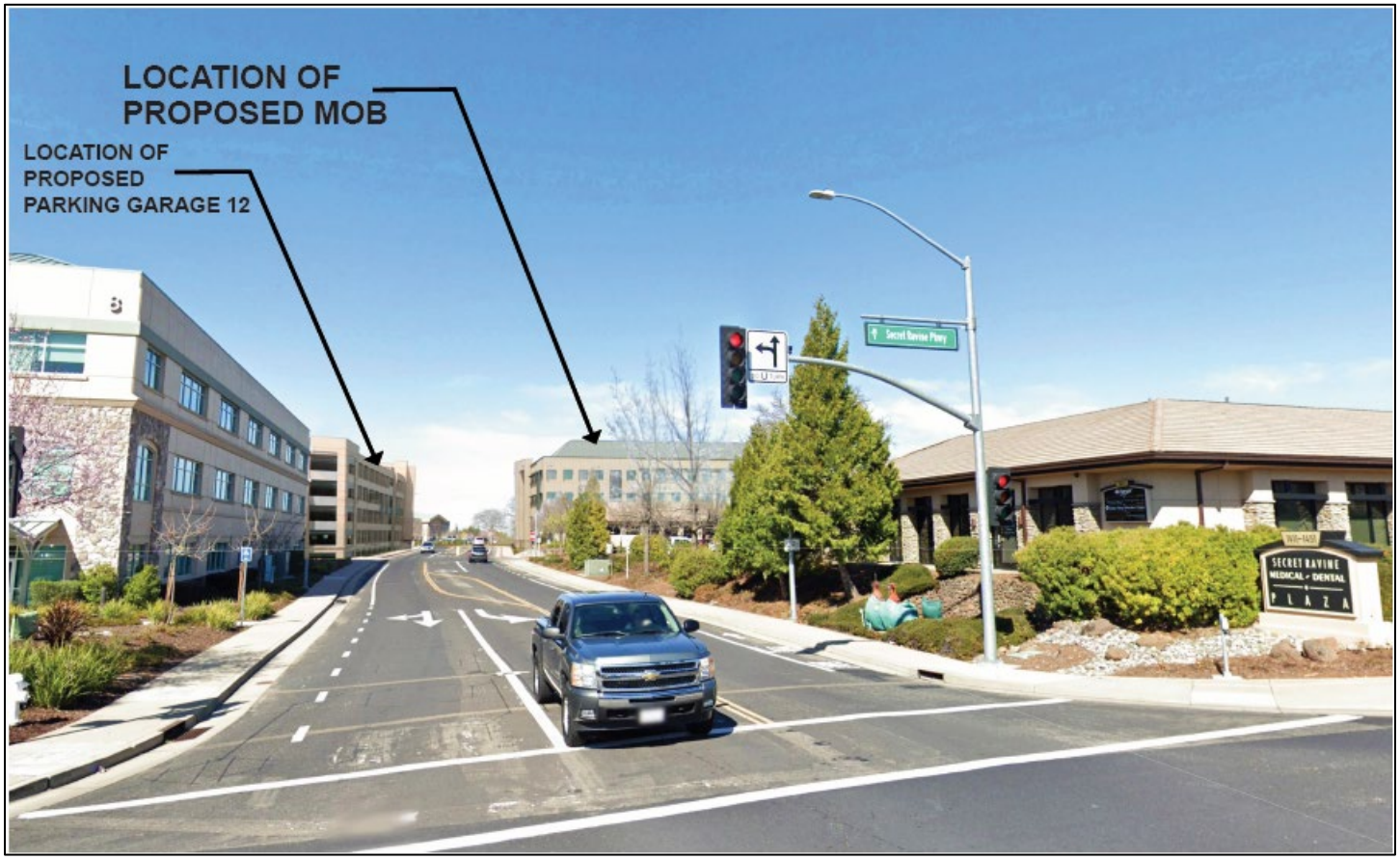
INITIAL STUDY CHECKLIST

I. Aesthetics

The Project is located in a developed area of the City, specifically in the eastern portion of the City. Each site is developed with a surface parking lot with lighting and landscaping. The MOB 7 site currently hosts a temporary modular building and a trailer, both of which will be removed upon the construction of MOB 7. The site is

surrounded by residential and business professional office uses. The area surrounding the Sutter Roseville Medical Center campus has been developed with office buildings, single-family, and multi-family dwelling units. The only public view of the Project is from Secret Ravine Parkway (see Figure 3). The Parking Garage Expansion is set approximately 398-feet from the closest apartment building to the north and approximately 520-feet from the closest single-family residential dwelling unit to the south. Surrounding the proposed Parking Garage Expansion is the existing five-story parking garage and several two and three-story Sutter medical office buildings. Conversely, the proposed MOB 7 is proposed adjacent to the existing multi-family apartment complex to the northeast, existing single-story medical offices to the southeast, and an existing Sutter medical office and a five-story parking garage to the south and east respectively. The project applicant prepared visual analysis illustrating the proposed Parking Garage Expansion and MOB 7 in comparison to the existing visual aesthetics of the area (Attachment #1). Additionally, the applicant provided night time view studies for both proposed buildings which illustrate the proposed parking garage and MOB providing a similar light glare as the existing parking garage and MOBs in the vicinity (Attachment #2).

Figure 3: View from Secret Ravine Parkway



Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized area, 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?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

Thresholds of Significance and Regulatory Setting:

The significance of an environmental impact cannot always be determined through the use of a specific, quantifiable threshold. CEQA Guidelines Section 15064(b) affirms this by the statement "an ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." This is particularly true of aesthetic impacts. As an example, a proposed parking lot in a dense urban center would have markedly different visual effects than a parking lot in an open space area. For the purpose of this study, the significance thresholds are as stated in CEQA Guidelines Appendix G, as shown in a–d of the checklist below. The Findings of the Implementing Procedures indicate that compliance with the Zoning Ordinance (e.g. building height, setbacks, etc), Subdivision Ordinance (RMC Ch. 18), Community Design Guidelines (Resolution 95-347), and applicable Specific Plan Policies and/or Specific Plan Design Guidelines will prevent significant impacts in urban settings as it relates to items a, b, and c, below.

Discussion of Checklist Answers:

a–b) There are no designated or eligible scenic vistas or scenic highways within or adjacent to the City of Roseville.

c) The project site is in an urban setting, and as a result lacks any prominent or high-quality natural features which could be negatively impacted by development. The City of Roseville has adopted Community Design Guidelines (CDG) for the purpose of creating building and community designs which are a visual asset to the

community. The CDG includes guidelines for building design, site design and landscape design, which will result in a project that enhances the existing urban visual environment. The parking garage expansion is proposed to be six (6) floors in height, one (1) floor taller than the existing five (5) story parking garage. The garage expansion is proposed to be located immediately to the east of the existing five-story parking garage and be connected to the future parking garage at each level; this would allow vehicles and pedestrians to go between the two sides. The new six-story parking addition would use the existing vehicles ramps on the existing parking garage to access each level of the new expansion. The site and surrounding properties are developed with a hospital, office buildings, single-family dwelling units, and lodging services (e.g. hotels). The project applicant prepared a visual analysis which shows the project will have minimal impacts on visual resources (Attachment #1). As proposed, light and glare will not increase above the existing condition. Light and glare associated with the proposed project would result from the proposed parking garage expansion and the exterior MOB lighting. Existing light and glare from the parking garage is already present, the parking garage expansion light and glare would mirror the existing parking garage. The MOB 7 has the potential of creating additional daytime glare caused by the reflections from the windows on the building, however, the additional glare would not be substantially different than what is currently present from the existing MOB buildings on the site. Sources of light and glare exist along the major roadways in the project vicinity, the applicant has prepared a Nighttime View Study for both the parking garage expansion and the MOB 7 (Attachment #2). Accordingly, the aesthetic impacts of the project are less than significant.

d) The project involves nighttime lighting to provide for the security and safety of project users (Attachment #2). However, the project is already located within an urbanized setting with many existing lighting sources. Lighting is conditioned to comply with City standards (i.e. CDG) to limit the height of light standards and to require cut-off lenses and glare shields to minimize light and glare impacts. The project will not create a new source of substantial light. None of the project elements are highly reflective, and thus the project will not contribute to an increased source of glare.

II. Agricultural & Forestry Resources

The State Department of Conservation oversees the Farmland Mapping and Monitoring Program, which was established to document the location, quality, and quantity of agricultural lands, and the conversion of those lands over time. The primary land use classifications on the maps generated through this program are: Urban and Built Up Land, Grazing Land, Farmland of Local Importance, Unique Farmland, Farmland of Statewide Importance, and Prime Farmland. According to the current California Department of Conservation Placer County Important Farmland Map (2012), the majority of the City of Roseville is designated as Urban and Built Up Land and most of the open space areas of the City are designated as Grazing Land. There are a few areas designated as Farmland of Local Importance and two small areas designated as Unique Farmland located on the western side of the City along Baseline Road. The current Williamson Act Contract map (2013/2014) produced by the Department of Conservation shows that there are no Williamson Act contracts within the City, and only one (on PFE Road) that is adjacent to the City. None of the land within the City is considered forest land by the Board of Forestry and Fire Protection.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

Thresholds of Significance and Regulatory Setting:

Unique Farmland, Farmland of Statewide Importance, and Prime Farmland are called out as protected farmland categories within CEQA Guidelines Appendix G. Neither the City nor the State has adopted quantified significance thresholds related to impacts to protected farmland categories or to agricultural and forestry resources. For the purpose of this study, the significance thresholds are as stated in CEQA Guidelines Appendix G, as shown in a–e of the checklist above.

Discussion of Checklist Answers:

a–e) The project site is not used for agricultural purposes, does not include agricultural zoning, is not within or adjacent to one of the areas of the City designated as a protected farmland category on the Placer County Important Farmland map, is not within or adjacent to land within a Williamson Act Contract, and is not considered forest land. Given the foregoing, the proposed project will have no impact on agricultural resources.

III. Air Quality

The City of Roseville, along with the south Placer County area, is located in the Sacramento Valley Air Basin (SVAB). The SVAB is within the Sacramento Federal Ozone Non-Attainment Area. Under the Clean Air Act, Placer County has been designated a "serious non-attainment" area for the federal 8-hour ozone standard, "non-attainment" for the state ozone standard, and a "non-attainment" area for the federal and state PM_{10} standard (particulate matter less than 10 microns in diameter). Within Placer County, the Placer County Air Pollution Control District (PCAPCD) is responsible for ensuring that emission standards are not violated. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Thresholds of Significance and Regulatory Setting:

In responding to checklist items a–c, project-related air emissions would have a significant effect if they would result in concentrations that either violate an ambient air quality standard or contribute to an existing air quality violation. To assist in making this determination, the PCAPCD adopted thresholds of significance, which were developed by considering both the health-based ambient air quality standards and the attainment strategies outlined in the State Implementation Plan. The PCAPCD-recommended significance threshold for reactive organic gases (ROG) and nitrogen oxides (NO_x) is 82 pounds daily during construction and 55 pounds daily during operation, and for particulate matter (PM) is 82 pounds per day during both construction and operation. For all other constituents, significance is determined based on the concentration-based limits in the Federal and State Ambient Air Quality Standards. Toxic Air Contaminants (TAC) are also of public health concern, but no thresholds or standards are provided because they are considered to have no safe level of exposure. Analysis

of TAC is based on the *Air Quality and Land Use Handbook – A Community Health Perspective (*April 2005, California Air Resources Board), which lists TAC sources and recommended buffer distances from sensitive uses. For checklist item c, the PCAPCD's *CEQA Air Quality Handbook* (*Handbook*) recommends that the same thresholds used for the project analysis be used for the cumulative impact analysis.

With regard to checklist item d, there are no quantified significance thresholds for exposure to objectionable odors or other emissions. Significance is determined after taking into account multiple factors, including screening distances from odor sources (as found in the PCAPCD CEQA Handbook), the direction and frequency of prevailing winds, the time of day when emissions are detectable/present, and the nature and intensity of the emission source.

Discussion of Checklist Answers:

a–c) Analyses are not included for sulfur dioxide, lead, and other constituents because there are no mass emission thresholds; these are concentration-based limits in the Federal and State Ambient Air Quality Standards which require substantial, point-source emissions (e.g. refineries, concrete plants, etc) before exceedance will occur, and the SVAB is in attainment for these constituents. Likewise, carbon monoxide is not analyzed because the SVAB is in attainment for this constituent, and it requires high localized concentrations (called carbon monoxide "hot spots") before the ambient air quality standard would be exceeded. "Hot spots" are typically associated with heavy traffic congestion occurring at high-volume roadway intersections. The General Plan EIR analysis of Citywide traffic indicated that more than 70% of signalized intersections would operate at level of service C or better—that is, they will not experience heavy traffic congestion. It further indicated that analyses of existing CO concentrations at the most congested intersections in Roseville show that CO levels are well below federal and state ambient air quality standards. The discussions below focus on emissions of ROG**,** NO_x, or PM**.** A project-level analysis has been prepared to determine whether the project will, on a singular level, exceed the established thresholds.

The Project involves construction of a 100,000 square foot medical office building and a 191,957 square foot parking garage expansion on a 2.58-acre project area. The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to model the construction emission of the Project (see Attachment #3). According to the model results, the project will result in maximum daily emissions of 5.66 lb/day of ROG and 17 lb/day pf NO_x during construction; these emissions fall below the 82-lb/day thresholds for these constituents. Therefore, construction air quality impacts are less than significant.

The PCAPCD maintains screening thresholds to determine when modeling is required to evaluate impacts resulting from project operation. The screening thresholds indicates a General Office project must involve more than 648,000 square feet of building area before the PCAPCD significance thresholds for criteria pollutants are likely to be exceed. The proposed MOB includes 100,000 square feet of building area, and the parking garage expansion includes approximately 200,000 square feet of building area, which is well below the screening thresholds; therefore, the project will not result in operational emissions which exceed established thresholds.

The proposed project would not exceed the applicable thresholds of significance for air pollutant emissions during construction or operation. As such, the project would not conflict with or obstruct implementation of the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (which is the SIP) or contribute substantially to the PCAPCD's nonattainment status for ozone. In addition, because the proposed project would not produce substantial emissions of criteria air pollutants, CO, or TACs, adjacent residents would not be exposed to significant levels of pollutant concentrations during construction or operation. Therefore, implementation of the proposed project would result in less than significant impacts, and consistent with the analysis methodology outlined in the Significance Thresholds and Regulatory Setting section, cumulative impacts are less than significant.

With regard to TAC, there are hundreds of constituents which are considered toxic, but they are typically generated by stationary sources like gas stations, facilities using solvents, and heavy industrial operations. The proposed project is not a TAC-generating use, nor is it within the specified buffer area of a TAC-generating use, as established in the *Air Quality and Land Use Handbook – A Community Health Perspective*. Impacts due to substantial pollutant concentrations are less than significant.

d) Diesel fumes from construction equipment and delivery trucks are often found to be objectionable; however, construction is temporary and diesel emissions are minimal and regulated. Typical urban projects such as residences and retail businesses generally do not result in substantial objectionable odors when operated in compliance with City Ordinances (e.g. proper trash disposal and storage). The Project is a typical urban development that lacks any characteristics that would cause the generation of substantial unpleasant odors. Thus, construction and operation of the proposed project would not result in the creation of objectionable odors affecting a substantial number of people. A review of the project surroundings indicates that there are no substantial odor-generating uses near the project site; the project location meets the recommended screening distances from odor-generators provided by the PCAPCD. Impacts related to odors are less than significant.

IV. Biological Resources

The Sutter Roseville Medical Center campus is developed with office buildings, surface parking lots, parking garages, and landscaping. The Project site has been previously disturbed for the construction of the surface parking lots. No natural resources exist on the subject property; therefore, no impacts to biological resources are expected.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
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?				X
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?				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Thresholds of Significance and Regulatory Setting:

There is no ironclad definition of significance as it relates to biological resources. Thus, the significance of impacts to biological resources is defined by the use of expert judgment supported by facts, and relies on the policies, codes, and regulations adopted by the City and by regulatory agencies which relate to biological resources (as cited and described in the Discussion of Checklist Answers section). Thresholds for assessing the significance of environmental impacts are based on the CEQA Guidelines checklist items a–f, above. Consistent with CEQA Guidelines Section 15065, a project may have a significant effect on the environment if:

> The project has the potential to substantially degrade the quality of the environment*;* substantially reduce the habitat of a fish or wildlife species*;* cause a fish or wildlife population to drop below self-sustaining levels*;* threaten to eliminate a plant or animal community; [or] substantially reduce the number or restrict the range of an endangered, rare or threatened species . . .

Various agencies regulate impacts to the habitats and animals addressed by the CEQA Guidelines checklist. These include the United States Fish and Wildlife Service, National Oceanic and Atmospheric Administration–Fisheries, United States Army Corps of Engineers, Central Valley Regional Water Quality Control Board, and California Department of Fish and Wildlife. The primary regulations affecting biological resources are described in the sections below.

Checklist item a addresses impacts to special status species. A “special status” species is one which has been identified as having relative scarcity and/or declining populations. Special status species include those formally listed as threatened or endangered, those proposed for formal listing, candidates for federal listing, and those classified as species of special concern. Also included are those species considered to be “fully protected” by the California Department of Fish and Wildlife (California Fish and Wildlife), those granted “special animal” status for tracking and monitoring purposes, and those plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS). The primary regulatory protections for special status species are within the Federal Endangered Species Act, California Endangered Species Act, California Fish and Game Code, and the Federal Migratory Bird Treaty Act.

Checklist item b addresses all “sensitive natural communities” and riparian (creekside) habitat that may be affected by local, state, or federal regulations/policies while checklist item c focuses specifically on one type of such a community: protected wetlands. Focusing first on wetlands, the 1987 Army Corps Wetlands Delineation Manual is used to determine whether an area meets the technical criteria for a wetland. A delineation verification by the Army Corps verifies the size and condition of the wetlands and other waters in question, and determines

the extent of government jurisdiction as it relates to Section 404 of the Federal Clean Water Act and Section 401 of the State Clean Water Act.

The Clean Water Act protects all "navigable waters", which are defined as traditional navigable waters that are or were used for commerce, or may be used for interstate commerce; tributaries of covered waters; and wetlands adjacent to covered waters, including tributaries. Non-navigable waters are called isolated wetlands, and are not subject to either the Federal or State Clean Water Act. Thus, isolated wetlands are not subject to federal wetland protection regulations. However, in addition to the Clean Water Act, the State also has jurisdiction over impacts to surface waters through the Porter-Cologne Water Quality Control Act (Porter-Cologne), which does not require that waters be "navigable". For this reason, isolated wetlands are regulated by the State of California pursuant to Porter-Cologne. The City of Roseville General Plan also provides protection for wetlands, including isolated wetlands, pursuant to the General Plan Open Space and Conservation Element. Federal, State and City regulations/policies all seek to achieve no net loss of wetland acreage, values, or function.

Aside from wetlands, checklist item b also addresses other "sensitive natural communities" and riparian habitat, which includes any habitats protected by local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. The City of Roseville General Plan Open Space and Conservation Element includes policies for the protection of riparian areas and floodplain areas; these are Vegetation and Wildlife section Policies 2 and 3. Policy 4 also directs preservation of additional area around stream corridors and floodplain if there is sensitive woodland, grassland, or other habitat which could be made part of a contiguous open space area. Other than wetlands, which were already discussed, US Fish and Wildlife and California Department of Fish and Wildlife habitat protections generally result from species protections, and are thus addressed via checklist item a.

For checklist item d, there are no regulations specific to the protection of migratory corridors. This item is addressed by an analysis of the habitats present in the vicinity and analyzing the probable effects on access to those habitats which will result from a project.

The City of Roseville Tree Preservation ordinance (RMC Ch.19.66) requires protection of native oak trees, and compensation for oak tree removal. The Findings of the Implementing Procedures indicate that compliance with the City of Roseville Tree Preservation ordinance (RMC Ch.19.66) will prevent significant impacts related to loss of native oak trees, referenced by item e, above.

Regarding checklist item f, there are no adopted Habitat Conservation Plans within the City of Roseville.

Discussion of Checklist Answers:

a-c, e) As previously discussed, the Sutter Roseville Medical Center campus is developed with office buildings, surface parking lots, and landscaping; which does not contain native trees, shrubs, wetland resources, or other sensitive natural communities which are protected by federal, state, or local policies. The entire campus is surrounded by a paved roadway and other development. No natural resources exist on the Project site; therefore, no impacts to biological resources are expected.

d) The City includes an interconnected network of open space corridors and preserves located throughout the City, to ensure that the movement of wildlife is not substantially impeded as the City develops. The development of the project site will not negatively impact these existing and planned open space corridors, nor is the project site located in an area that has been designated by the City, United States Fish and Wildlife, or California Department of Fish and Wildlife as vital or important for the movement of wildlife or the use of native wildlife nursery sites.

f) There are no Habitat Conservation Plans; Natural Community Conservation Plans; or other approved local, regional, or state habitat conservation plans that apply to the project site.

V. Cultural Resources

As described within the Open Space and Conservation Element of the City of Roseville General Plan, the Roseville region was within the territory of the Nisenan (also Southern Maidu or Valley Maidu). Two large permanent Nisenan habitation sites have been identified and protected within the City's open space (in Maidu Park). Numerous smaller cultural resources, such as midden deposits and bedrock mortars, have also been recorded in the City. The gold rush which began in 1848 marked another settlement period, and evidence of Roseville's ranching and mining past are still found today. Historic features include rock walls, ditches, low terraces, and other remnants of settlement and activity. A majority of documented sites within the City are located in areas designated for open space uses.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of an historic resource pursuant to in Section 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			X	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts to cultural resources is based directly on the CEQA Guidelines checklist items a–e listed above. The Archaeological, Historic, and Cultural Resources section of the City of Roseville General Plan also directs the proper evaluation of and, when feasible, protection of significant resources (Policies 1 and 2). There are also various federal and State regulations regarding the treatment and protection of cultural resources, including the National Historic Preservation Act and the Antiquities Act (which regulate items of significance in history), Section 7050.5 of the California Health and Safety Code, Section 5097.9 of the California Public Resources Code (which regulates the treatment of human remains) and Section 21073 et seq. of the California Public Resources Code (regarding Tribal Cultural Resources). The CEQA Guidelines also contains specific sections, other than the checklist items, related to the treatment of effects on historic resources.

Pursuant to the CEQA Guidelines, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2 (a), (b), and (c)). A *historical resource* is a resource listed, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR) (Section 21084.1); a resource included in a local register of historical resources (Section 15064.5(a)(2)); or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be

historically significant (Section 15064.5 (a)(3)). Public Resources Code Section 5024.1 requires evaluation of historical resources to determine their eligibility for listing on the CRHR.

Discussion of Checklist Answers:

a–b and d) The Northeast Roseville Specific Plan EIR identified sites in the Specific Plan as unreported prehistoric sites. The sites identified in the Specific Plan are not within the proposed project site. However, standard mitigation measures apply which are designed to reduce impacts to cultural resources, should any be found on-site. The measure requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. The project will not result in any new impacts beyond those already discussed and disclosed in the Northeast Roseville Specific Plan EIR; project-specific impacts are less than significant.

c) No paleontological resources are known to exist on the project site per the Northeast Roseville Specific Plan EIR; however, standard mitigation measures apply which are designed to reduce impacts to such resources, should any be found on-site. The measure requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. The project will not result in any new impacts beyond those already discussed and disclosed in the Northeast Roseville Specific Plan EIR; project-specific impacts are less than significant.

VI. Energy

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy inefficiency?			X	

Thresholds of Significance and Regulatory Setting:

Established in 2002, California's Renewable Portfolio Standard (RPS) currently requires that 33 percent of electricity retail sales by served by renewable energy resources by 2020, and 50 percent by 2030. The City published a Renewables Portfolio Standard Procurement Plan in June 2018, and continues to comply with the RPS reporting and requirements and standards. There are no numeric significance thresholds to define "wasteful, inefficient, or unnecessary" energy consumption, and therefore significance is based on CEQA Guidelines checklist items a and b, above, and by the use of expert judgment supported by facts, relying on the policies, codes, and regulations adopted by the City and by regulatory agencies which relate to energy. The analysis considers compliance with regulations and standards, project design as it relates to energy use (including transportation energy), whether the project will result in a substantial unplanned demand on the City's energy resources, and whether the project will impede the ability of the City to meet the RPS standards.

Discussion of Checklist Answers:

a & b) The project would consume energy both during project construction and during project operation. During construction, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. However, the energy consumed during construction would be temporary, and would not represent a significant demand on available resources. There are no unusual project characteristics that would necessitate the use of construction equipment or methods that would be less energy-efficient or which would be wasteful.

The completed project would consume energy related to building operation, exterior lighting, landscape irrigation and maintenance, and vehicle trips to and from the use. In accordance with California Energy Code Title 24, the project would be required to meet the Building Energy Efficiency Standards. This includes standards for water and space heating and cooling equipment; insulation for doors, pipes, walls, and ceilings; and appliances, to name a few. The project would also be eligible for rebates and other financial incentives from both the electric and gas providers for the purchase of energy-efficient appliances and systems, which would further reduce the operational energy demand of the project. The project was distributed to both PG&E and Roseville Electric for comments, and was found to conform to the standards of both providers; energy supplies are available to serve the project.

The project is consistent with the existing land use designation in the Specific Plan. The Environmental Impact Report (EIR) for the Northeast Roseville Specific Plan included an assessment of energy impacts for the entire plan area. The analysis included consideration of transportation energy, and evaluated walkability, alternative transportation modes, and the degree to which the mix and location of uses would reduce vehicle miles traveled in the plan area. The EIR also included a citywide assessment of energy demand based on the existing and proposed land uses within the City and Specific Plan. Impacts related to energy consumption were found to be less than significant. The project is consistent with the existing land use designation, and therefore is consistent with the current citywide assessment of energy demand, and will not result in substantial unplanned, inefficient, wasteful, or unnecessary consumption of energy; impacts are less than significant.

VII. Geology and Soils

As described in the Safety Element of the City of Roseville General Plan, there are three inactive faults (Volcano Hill, Linda Creek, and an unnamed fault) in the vicinity, but there are no known active seismic faults within Placer County. The last seismic event recorded in the South Placer area occurred in 1908, and is estimated to have been at least a 4.0 on the Richter Scale. Due to the geographic location and soil characteristics within the City, the General Plan indicates that soil liquefaction, landslides, and subsidence are not a significant risk in the area.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
i) Ruptures 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.)			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located in a geological 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?				X
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?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to geology and soils is based directly on the CEQA Guidelines checklist items a–f listed above. Regulations applicable to this topic include the Alquist-Priolo Act, which addresses earthquake safety in building permits, and the Seismic Hazards Mapping Act, which requires the state to gather and publish data on the location and risk of seismic faults. The Archaeological, Historic, and Cultural Resources section of the City of Roseville General Plan also directs the proper evaluation of and, when feasible, protection of significant archeological resources, which for this evaluation will include paleontological resources (Policies 1 and 2). Section 50987.5 of the California Public Code Section is only applicable to public land; this section prohibits the excavation, removal, destruction, or defacement/injury to any vertebrate paleontological site, including fossilized footprints or other paleontological feature.

The Findings of the Implementing Procedures indicate that compliance with the Flood Damage Prevention Ordinance (RMC Ch.9.80) and Design/Construction Standards (Resolution 07-107) will prevent significant impacts related to checklist item b. The Ordinance and standards include permit requirements for construction and development in erosion-prone areas and ensure that grading activities will not result in significant soil erosion or loss of topsoil. The use of septic tanks or alternative waste systems is not permitted in the City of Roseville, and therefore no analysis of criterion e is necessary.

Discussion of Checklist Answers:

a) The project will not expose people or structures to potential substantial adverse effects involving seismic shaking, ground failure or landslides.

i–iii) According to United States Geological Service mapping and literature, active faults are largely considered to be those which have had movement within the last 10,000 years (within the Holocene or Historic time periods)[1] and there are no major active faults in Placer County. The California Geological Survey has prepared a map of the state which shows the earthquake shaking potential of areas throughout California based primarily on an area's distance from known active faults. The map shows that the City lies in a relatively low-intensity ground-shaking zone. Commercial, institutional, and residential buildings as well as all related infrastructure are required, in conformance with Chapter 16, *Structural Design Requirements*, Division IV, *Earthquake Design* of the California Building Code, to lessen the exposure to potentially damaging vibrations through seismic-resistant design. In compliance with the Code, all structures in the Project area would be well-built to withstand ground shaking from possible earthquakes in the region; impacts are less than significant.

iv) Landslides typically occur where soils on steep slopes become saturated or where natural or manmade conditions have taken away supporting structures and vegetation. The existing and proposed slopes of the project site are not steep enough to present a hazard during development or upon completion of the project. In addition, measures would be incorporated during construction to shore minor slopes and prevent potential earth movement. Therefore, impacts associated with landslides are less than significant.

b) Grading activities will result in the disruption, displacement, compaction and over-covering of soils associated with site preparation (grading and trenching for utilities). Grading activities for the project will be limited to the project site. Grading activities require a grading permit from the Engineering Division. The grading permit is reviewed for compliance with the City's Improvement Standards, including the provision of proper drainage, appropriate dust control, and erosion control measures. Grading and erosion control measures will be incorporated into the required grading plans and improvement plans. Therefore, the impacts associated with disruption, displacement, and compaction of soils associated with the project are less than significant.

[1] United States Geological Survey, http://earthquake.usgs.gov/learn/glossary/?term=active%20fault, Accessed January 2016

c, d) A review of the Natural Resources Conservation Service Soil Survey for Placer County, accessed via the Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/), indicates that the soils on the site are Exchequer very stony loam, 2 to 15 percent slopes, which are not listed as geologically unstable or sensitive.

f) No paleontological resources are known to exist on the project site per the Northeast Roseville Specific Plan EIR; however, standard mitigation measures apply which are designed to reduce impacts to such resources, should any be found on-site. The measure requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. The project will not result in any new impacts beyond those already discussed and disclosed in the Northeast Roseville Specific Plan EIR; project-specific impacts are less than significant.

VIII. Greenhouse Gases

Greenhouse gases trap heat in the earth's atmosphere. The principal greenhouse gases (GHGs) that enter the atmosphere because of human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. As explained by the United States Environmental Protection Agency[2], global average temperature has increased by more than 1.5 degrees Fahrenheit since the late 1800s, and most of the warming of the past half century has been caused by human emissions. The City has taken proactive steps to reduce greenhouse gas emissions, which include the introduction of General Plan policies to reduce emissions, changes to City operations, and climate action initiatives.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Thresholds of Significance and Regulatory Setting:

In Assembly Bill 32 (the California Global Warming Solutions Act), signed by Governor Schwarzenegger of California in September 2006, the legislature found that climate change resulting from global warming was a threat to California, and directed that "the State Air Resources Board design emissions reduction measures to meet the statewide emissions limits for greenhouse gases . . .". The target established in AB 32 was to reduce emissions to 1990 levels by the year 2020. CARB subsequently prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008. The Scoping Plan provides the outline for actions to reduce California's GHG emissions, and has been updated twice.

The current 2017 Scoping Plan updated the target year from 2020 to 2030, based on the targets established in Senate Bill 32 (SB 32). SB 32 was signed by the Governor on September 8, 2016, to establish a reduction target of 40 percent below 1990 levels by 2030. Critically, the 2017 Scoping Plan also sets the path toward compliance

[2] http://www3.epa.gov/climatechange/science/overview.html, Accessed January 2016

with the 2050 target embodied within Executive Order S-3-05 as well. According to the 2017 Scoping Plan the statewide 2030 target is 260 million metric tons. The Scoping Plan recommends an efficiency target approach for local governments for 2030 and 2050 target years.

The Placer County Air Pollution Control District (PCAPCD) recommends that thresholds of significance for GHG be related to statewide reduction goals and has adopted thresholds of significance which take into account the 2030 reduction target. The thresholds include a de minimis and a bright-line maximum threshold, as well as residential and non-residential efficiency thresholds. However, the City developed its own thresholds as part of the 2035 General Plan Update project approved in July 2020. The justification for the City's thresholds is contained within the General Plan EIR. The thresholds were developed based on statewide emissions data adjusted for relevant local conditions and land uses. The significance thresholds are shown in Table 1 below.

Table 1: GHG Significance Thresholds

	2020	2030	2035	2050
Per Capita Emissions Efficiency Targets (MT CO_2e/capita/yr)	**7.21**	**4.00**	**3.22**	**1.19**
Per Service Population Emissions Efficiency Targets (MT CO_2e/SP/yr)	**5.07**	**2.79**	**2.25**	**0.83**
Projects which use these thresholds for environmental analysis should include a brief justification of the type of efficiency target and the target year selected. Per capita is most applicable to projects which only include residential uses, or in cases where reliable data to generate a service population estimate is unavailable. Projects should generally use the 2035 target year. Note that future projects consistent with the General Plan will not require further analysis, per the tiering provisions of CEQA. Note: MMT CO_2e = million metric tons of carbon dioxide equivalent; Service Population (SP) = population + employment				

Discussion of Checklist Answers:

a–b) Greenhouse gases are primarily emitted as a result of vehicle operation associated with trips to and from a project, and energy consumption from operation of the buildings. Greenhouse gases from vehicles is assessed based on the vehicle miles traveled (VMT) resulting from a project, on a Citywide basis. Residential projects, destination centers (such as a regional mall), and major employers tend to increase VMT in a study area, either by adding new residents traveling in an area, or by encouraging longer trip lengths and drawing in trips from a broader regional area. However, non-residential projects and neighborhood-serving uses (e.g. neighborhood parks) tend to lower VMT in a study area because they do not generate new trips within the study area, they divert existing trips. These trips are diverted because the new use location is closer to home, on their way to another destination (e.g. work), or is otherwise more convenient.

The Project proposes construction of a 100,000 square foot medical office building and expand the existing parking garage by approximately 200,000 square feet. As discussed in the Transportation section of this Initial Study, the project is consistent with the City's General Plan and will not create additional trips that have not already been evaluated in the General Plan EIR.

The City's General Plan Update (GPU) EIR included an analysis of GHG emissions, which would result from buildout of the City's General Plan. The EIR concluded that General Plan build out would exceed the City's threshold of 2.25 MT CO2e per service population and that the affect was cumulatively considerable. Although mitigation measures were adopted as part of the General Plan, those measures would not reduce impacts to less-than-significant levels and impacts were considered significant and unavoidable. The proposed project is consistent with the land use assumptions in the GPU EIR and does not require further analysis per the tiering provisions of CEQA. The project includes reasonable and feasible design measures to reduce emissions,

including implementation of the latest Cal-Green and energy efficiency code requirements. The medical office building will incorporate several alternative transportation measures like bike racks immediately in front of the medical office building. The project complies with General Plan policy related to GHG and the project does not result in any new GHG impacts not previously analyzed in the GPU EIR; therefore, impacts are less than significant.

Based on the foregoing, project-generated GHG emissions would not conflict with and are consistent with statewide goals for greenhouse gas emissions reduction. This impact is considered less than significant.

IX. Hazards and Hazardous Materials

There are no hazardous cleanup sites of record within 1,000 feet of the Project site according to both the Department of Toxic Substances Control Envirostor database (http://www.envirostor.dtsc.ca.gov/public/) and the State Water Resources Control Envirostor (http://geotracker.waterboards.ca.gov/). The project is not located on a site where existing hazardous materials have been identified, and the project does not have the potential to expose individuals to hazardous materials.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment though reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to hazardous materials is based directly on the CEQA Guidelines checklist items a–g listed above. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency, or if it has characteristics defined as hazardous by such an agency. The determination of significance based on the above criteria depends on the probable frequency and severity of consequences to people who might be exposed to the health hazard, and the degree to which Project design or existing regulations would reduce the frequency of or severity of exposure. As an example, products commonly used for household cleaning are classified as hazardous when transported in large quantities, but one would not conclude that the presence of small quantities of household cleaners at a home would pose a risk to a school located within ¼-mile.

Many federal and State agencies regulate hazards and hazardous substances, including the United States Environmental Protection Agency (US EPA), California Department of Toxic Substances Control (DTSC), Central Valley Regional Water Quality Control Board (Regional Water Board), and the California Occupational Safety and Health Administration (CalOSHA). The state has been granted primacy (primary responsibility for oversight) by the US EPA to administer and enforce hazardous waste management programs. State regulations also have detailed planning and management requirements to ensure that hazardous materials are handled, stored, and disposed of properly to reduce human health risks. California regulations pertaining to hazardous waste management are published in the California Code of Regulations (see 8 CCR, 22 CCR, and 23 CCR).

The project is not within an airport land use plan or within two miles of a public or private use airport. Therefore, no further discussion is provided for item e.

Discussion of Checklist Answers:

a, b) Standard construction activities would require the use of hazardous materials such as fuels, oils, lubricants, glues, paints and paint thinners, soaps, bleach, and solvents. These are common household and commercial materials routinely used by both businesses and average members of the public. The materials only pose a hazard if they are improperly used, stored, or transported either through upset conditions (e.g. a vehicle accident) or mishandling. In addition to construction use, the operational project would result in the use of common hazardous materials as well, including bleach, solvents, and herbicides. Regulations pertaining to the transport of materials are codified in 49 Code of Federal Regulations 171–180, and transport regulations are enforced and monitored by the California Department of Transportation and by the California Highway Patrol. Specifications for storage on a construction site are contained in various regulations and codes, including the California Code of Regulations, the Uniform Fire Code, and the California Health and Safety Code. These same codes require that all hazardous materials be used and stored in the manner specified on the material packaging. Existing regulations and programs are sufficient to ensure that potential impacts as a result of the use or storage of hazardous materials are reduced to less than significant levels.

c) See response to Items (a) and (b) above. While development of the site will result in the use, handling, and transport of materials deemed to be hazardous, the materials in question are commonly used in both residential and commercial applications, and include materials such as bleach and herbicides. The project will not result in the use of any acutely hazardous materials, substances, or waste.

d) The project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5[3]; therefore, no impact will occur.

e) This project is located within an area currently receiving City emergency services and development of the site has been anticipated and incorporated into emergency response plans. As such, the project will cause a less than significant impact to the City's Emergency Response or Management Plans. Furthermore, the project will be required to comply with all local, State and federal requirements for the handling of hazardous materials, which will ensure less-than-significant impacts. These will require the following programs:

- A Risk Management and Prevention Program (RMPP) is required of uses that handle toxic and/or hazardous materials in quantities regulated by the California Health and Safety Code and/or the City.

- Businesses that handle toxic or hazardous materials are required to complete a Hazardous Materials Management Program (HMMP) pursuant to local, State, or federal requirements.

g) The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local responsibility. The project site is in an urban area, and therefore would not expose people to any risk from wildland fire. There would be no impact with regard to this criterion.

X. Hydrology and Water Quality

As described in the Open Space and Conservation Element of the City of Roseville General Plan, the City is located within the Pleasant Grove Creek Basin and the Dry Creek Basin. Pleasant Grove Creek and its tributaries drain most of the western and central areas of the City and Dry Creek and its tributaries drain the remainder of the City. Most major stream areas in the City are located within designated open space.

[3] http://www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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;			X	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;			X	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater systems or provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?				X
d) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) In flood hazard, tsunami, or seiches zones, risk release of pollutants due to project innundation?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to hydrology and water quality is based directly on the CEQA Guidelines checklist items a–e listed above. For checklist item a, c (i), d, and e, the Findings of the Implementing Procedures indicate that compliance with the City of Roseville Design/Construction Standards (Resolution 07-107), Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch. 14.20), and Stormwater Quality Design Manual (Resolution 16-152) will prevent significant impacts related to water quality or erosion. The standards require preparation of an erosion and sediment control plan for construction activities and includes designs to control pollutants within post-construction urban water runoff. Likewise, it is indicated that the Drainage Fees for the Dry Creek and Pleasant Grove Watersheds (RMC Ch.4.48) and City of Roseville Design/Construction Standards (Resolution 07-107) will prevent significant impacts related to checklist items c (ii) and c (iii). The ordinance and standards require the collection of drainage fees to fund improvements that mitigate potential flooding impacts, and require the design of a water drainage system that will adequately convey anticipated stormwater flows without increasing the rate or amount of surface runoff. These same ordinances and standards prevent impacts related to groundwater (items a and d), because developers are required to treat and detain all stormwater onsite using stormwater swales and other methods which slow flows and preserve infiltration. Finally, it is indicated that compliance with the Flood Damage Prevention Ordinance (RMC Ch. 9.80) will prevent significant impacts related to items c (iv) and e. The Ordinance includes standard requirements for all new construction, including regulation of development with the potential to impede or redirect flood flows, and prohibits development within flood hazard areas. Impacts from tsunamis and seiches were screened out of the analysis (item e) because the project is not located near a water body or other feature that would pose a risk of such an event.

Discussion of Checklist Answers:

a,c (i),d, e) The project will involve the disturbance of on-site soils and the construction of impervious surfaces, such as asphalt paving and buildings. Disturbing the soil can allow sediment to be mobilized by rain or wind, and cause displacement into waterways. To address this and other issues, the developer is required to receive approval of a grading permit and/or improvement plants prior to the start of construction. The permit or plans are required to incorporate mitigation measures for dust and erosion control. In addition, the City has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by the Central Valley Regional Water Quality Control Board which requires the City to reduce pollutants in stormwater to the maximum extent practicable. The City does this, in part, by means of the City's 2016 Design/Construction Standards, which require preparation and implementation of a Stormwater Pollution Prevention Plan. All permanent stormwater quality control measures must be designed to comply with the City's Manual for Stormwater Quality Control Standards for New Development, the City's 2016 Design/Construction Standards, Urban Stormwater Quality Management and Discharge Control Ordinance, and Stormwater Quality Design Manual. For these reasons, impacts related to water quality are less than significant.

b, d) The project does not involve the installation of groundwater wells. The City maintains wells to supplement surface water supplies during multiple dry years, but the effect of groundwater extraction on the aquifer was addressed in the City's Urban Water Master Plan and evaluated in the General Plan EIR. The proposed project is consistent with the General Plan land use designation, and is thus consistent with the citywide evaluation of water supply. Project impacts related to groundwater extraction are less than significant. Furthermore, all

permanent stormwater quality control measures must be designed to comply with the Stormwater Quality Design Manual, which requires the use of bioswales and other onsite detention and infiltration methods. These standards ensure that stormwater will continue to infiltrate into the groundwater aquifer.

c (ii and iii)) The project has been reviewed by City Engineering staff for conformance with City ordinances and standards. The project includes adequate and appropriate facilities to ensure no net increase in the amount or rate of stormwater runoff from the site, and which will adequately convey stormwater flows.

c (iv) and e) The project has been reviewed by City Engineering staff for conformance with City ordinances and standards. The project is not located within either the Federal Emergency Management Agency floodplain or the City's Regulatory Floodplain (defined as the floodplain which will result from full buildout of the City). Therefore, the project will not impede or redirect flood flows, nor will it be inundated. The proposed project is located within an area of flat topography and is not near a waterbody or other feature which could cause a seiche or tsunami. There would be no impact with regard to these criterion.

XI. Land Use and Planning

The Project site is located in the Northeast Roseville Specific Plan and has a land use designation of Business Professional (BP) and a zoning designation of Planned Development for Medical Office (PD457). Surrounding land uses include an existing multi-family apartment complex to the north, a private dental clinic to the east, and an existing parking garage and medical office buildings to the south and west.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to land use is based directly on the CEQA Guidelines checklist items a and b listed above. Consistency with applicable City General Plan policies, Improvement Standards, and design standards is already required and part of the City's processing of permits and plans, so these requirements do not appear as mitigation measures.

Discussion of Checklist Answers:

a) The project area has been master planned for development, including adequate roads, pedestrian paths, and bicycle paths to provide connections within the community. The project will not physically divide an established community.

b) The proposed Project is consistent with the Northeast Roseville Specific Plan and does not conflict with policies or regulations adopted for the purpose of avoiding or mitigating an environmental impact. Impacts are less than significant.

XII. Mineral Resources

The Surface Mining and Reclamation Act (SMARA) of 1975 requires the State Geologist to classify land into Mineral Resource Zones (MRZ's) based on the known or inferred mineral resource potential of that land. The California Division of Mines and Geology (CDMG) was historically responsible for the classification and designation of areas containing—or potentially containing—significant mineral resources, though that responsibility now lies with the California Geological Survey (CGS). CDMG published Open File Report 95-10, which provides the mineral classification map for Placer County. A detailed evaluation of mineral resources has not been conducted within the City limits, but MRZ's have been identified. There are four broad MRZ categories (MRZ-1 through MRZ-4), and only MRZ-2 represents an area of known significant mineral resources. The City of Roseville General Plan EIR included Exhibit 4.1-3, depicting the location of MRZ's in the City limits. There is only one small MRZ-2 designation area, located at the far eastern edge of the City.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?				X
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?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to mineral resources is based directly on the CEQA Guidelines checklist items a and b listed above.

Discussion of Checklist Answers:

a–b) The project site is not in the area of the City known to include any mineral resources that would be of local, regional, or statewide importance; therefore, the project has no impacts on mineral resources.

XIII. Noise

The Project consists of a new medical office building and an extension of an existing parking garage on the Sutter campus. Potential sources of noise at the medical office building include people talking, people moving in and out of the building, and vehicles moving throughout the Project site. Potential sources of noises at the parking garage expansion include vehicles moving through the parking garage. These are typical noises, which occur in any non-residential development and typically do not generate substantial noise volumes. Further, the Sutter

Roseville Medical Center campus is developed with multiple medical office buildings within the vicinity of the Project area which are similar in nature to the proposed medical office building and parking expansion and would not generate new and substantial increase in noise. The nearest sensitive receptors are the residents within the multi-family dwelling units to the northeast of the Project site. The nearest apartment building to the Project site is approximately 120-feet away, the apartment building is located between a an existing wrought iron fence and proposed six-foot masonry wall, existing carports, and garages (Attachment 1).

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?			X	
b) Generation of excessive ground borne vibration of ground borne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Thresholds of Significance and Regulatory Setting:

Standards for transportation noise and non-transportation noise affecting existing or proposed land uses are established within the City of Roseville General Plan Noise Element, and these standards are used as the thresholds to determine the significance of impacts related to items a and c. The significance of other noise impacts is based directly on the CEQA Guidelines checklist items b and c listed above. The Findings of the Implementing Procedures indicate that compliance with the City Noise Regulation (RMC Ch. 9.24) will prevent significant non-transportation noise as it relates to items a and b. The Ordinance establishes noise exposure standards that protect noise-sensitive receptors from a variety of noise sources, including non-transportation/fixed noise, amplified sound, industrial noise, and events on public property. The project is not within an airport land use plan, within two miles of a public or public use airport and there are also no private airstrips in the vicinity of the project area. Therefore, item c has been ruled out from further analysis.

Discussion of Checklist Answers:

a) The proposed Project includes construction of a medical office building and an extension to an existing parking garage. The Project anticipates short term increase of noise levels during the construction phase of the Project. Construction activities on the site could expose the nearby residents of the apartment complex to increase noise levels, including ground-born vibrations. These impacts are temporary in nature being associated with the construction of the Project and are not anticipated to result in any unusual or excessive ground-born vibration or noise levels. Further, the Project construction hours are limited by the City's Municipal Code Section 9.24 to daytime hours (7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 8:00 p.m., Saturday, Sunday, and Holidays). The parking garage and medical office building is a principally permitted use on the site, which typically generates low to moderate noise levels through the use of mechanical equipment, such as roof top air conditioning units. The medical office building is located in an area of the campus where other office buildings are present, similar in nature to the proposed office building. The parking garage is proposed as an extension of the existing parking garage, therefore, no new noise levels are proposed that are not already existing. Lastly, a unique component of the medical office building is the proposed graduate medical education (GME) physician training residency and fellowship programs. The GME is proposed to occupy the first floor of the medical office building and utilize the proposed outdoor patio area located at adjacent to the existing apartment complex. The students and faculty would utilize the outdoor patio area as a break area during and between their classes. The outdoor patio area would not generate new ambient noises not already present on campus. Typically with outdoor patio areas an increase in noise is associated with these areas as people converse outdoors. However, the increase in noise would not affect the adjacent residence as the applicant proposes to install a new 6-foot tall masonry wall and the patio area is proposed to sit significantly lower in grade to the apartment complex. Therefore, the project would not generate substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of City standards; thus, impacts are less than significant.

b) Surrounding uses may experience short-term increases in groundborne vibration, groundborne noise, and airborne noise levels during construction. However, these increases would only occur for a short period of time. When conducted during daytime hours, construction activities are exempt from Noise Ordinance standards, but the standards do apply to construction occurring during nighttime hours. While the noise generated may be a minor nuisance, the City Noise Regulation standards are designed to ensure that impacts are not unduly intrusive. Based on this, the impact is less than significant.

XIV. Population and Housing

The project site is located within the Northeast Roseville Specific Plan and has a land use designation of Business Professional (BP). The City of Roseville General Plan Table II-4 identifies the total number of residential units and population anticipated as a result of buildout of the City, and the Specific Plan likewise includes unit allocations and population projections for the Plan Area. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, though extension of roads or other infrastructure)?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to population and housing is based directly on the CEQA Guidelines checklist items a and b listed above.

Discussion of Checklist Answers:

a) The CEQA Guidelines identify several ways in which a project could have growth-inducing impacts (Public Resources Code Section 15126.2), either directly or indirectly. Growth-inducement may be the result of fostering economic growth, fostering population growth, providing new housing, or removing barriers to growth. Growth inducement may be detrimental, beneficial, or of no impact or significance under CEQA. An impact is only deemed to occur when it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be shown that the growth will significantly affect the environment in some other way. The project is consistent with the land use designation of the site. Therefore, while the project in question will induce some level of growth, this growth was already identified and its effects disclosed and mitigated within the Northeast Roseville Specific Plan EIR. Therefore, the impact of the project is less than significant.

b) The project site is vacant. No housing exists on the project site, and there would be no impact with respect to these criteria.

XV. Public Services

Fire protection, police protection, park services, and library services are provided by the City. The project is located within the Roseville Elementary School District and within the Roseville Joint Union High School District. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?			X	
d) Parks?			X	
e) Other public facilities?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to public services is based directly on the CEQA Guidelines checklist items a–e listed above. The EIR for the Specific Plan addressed the level of public services which would need to be

provided in order to serve planned growth in the community. Development Agreements and other conditions have been adopted in all proposed growth areas of the City which identify the physical facilities needed to serve growth, and the funding needed to provide for the construction and operation of those facilities and services; the project is consistent with the Specific Plan. In addition, the project has been routed to the various public service agencies, both internal and external, to ensure that the project meets the agencies' design standards (where applicable) and to provide an opportunity to recommend appropriate conditions of approval.

Discussion of Checklist Answers:

a) Existing City codes and regulations require adequate water pressure in the water lines, and construction must comply with the Uniform Fire and Building Codes used by the City of Roseville. Additionally, the applicant is required to pay a fire service construction tax, which is used for purchasing capital facilities for the Fire Department. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

b) Pursuant to the Development Agreement for the project area, the developer is required to pay fees into a Community Facilities District, which provides funding for police services. Sales taxes and property taxes resulting from the development will add revenue to the General Fund, which also serves to fund police services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

c) The applicant for this project is required to pay school impact fees at a rate determined by the local school districts. School fees will be collected prior to the issuance of building permits, consistent with City requirements. School sites have already been designated as part of the Specific Plan process. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

d) Pursuant to the Development Agreement for the project area, the developer will be required to pay fees into a Community Facilities District, which provides funding for park services. Future park and recreation sites and facilities have already been identified as part of the Specific Plan process. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

e) Pursuant to the Development Agreement for the project area, the developer will be required to pay fees into a Community Facilities District, which provides funding for the library system and other such facilities and services. In addition, the City charges fees to end-users for other services, such as garbage and greenwaste collection, in order to fund those services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

XVI. Recreation

There are no existing or planned parks or other recreation facilities immediately adjacent to the Project site. The nearest recreation area is the Harry Crabb Park, located less than 0.40-miles east of the site on Secret Ravine Parkway and Scarborough Drive.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?				X
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?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to recreation services is based directly on the CEQA Guidelines checklist items a–b listed above.

Discussion of Checklist Answers:

a) The EIR for the Specific Plan addressed the level of park services—including new construction, maintenance, and operations—which would need to be provided in order to serve planned growth in the community. Given that the project is consistent with the General Plan and Specific Plan, the project would not cause any unforeseen or new impacts related to the use of existing or proposed parks and recreational facilities. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

b) Park sites and other recreational facilities were identified within the Specific Plan, and the plan-level impacts of developing those facilities were addressed within the Final EIR for the Specific Plan. The project will not cause any unforeseen or new impacts related to the construction or expansion of recreational facilities.

XVII. Transportation

Both the proposed medical office building and parking expansion have frontage on to Medical Plaza, which is a two-lane private roadway with left-turning lanes. Medical Plaza has fully constructed frontage improvements with bike lanes and sidewalks.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature(s) (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

Thresholds of Significance and Regulatory Setting:

The City has adopted the following plans, ordinances, or policies applicable to checklist item a: Pedestrian Master Plan, Bicycle Master Plan, and Short-Range Transit Plan, and General Plan Circulation Element. The project is evaluated for consistency with these plans and the policies contained within them. For checklist item b, the CEQA Guidelines Section 15064.3 establishes a detailed process for evaluating the significance of transportation impacts. In accordance with this section, the analysis must focus on the generation of vehicle miles traveled (VMT); effects on automobile delay cannot be considered a significant impact. The City developed analysis guidance and thresholds as part of the 2035 General Plan Update project approved in July 2020. The detailed evaluation and justification is contained within the General Plan EIR.

Future projects consistent with the General Plan will not require further VMT analysis, pursuant to the tiering provisions of CEQA. For projects which are inconsistent, CEQA Guidelines Section 15064.3(b) allows lead agencies discretion to determine, in the context of a particular project, whether to rely on a qualitative analysis or performance-based standards. CEQA Guidelines Section 15064.7(b) allows lead agencies the discretion to select their own thresholds and allow for differences in thresholds based on context.

Quantitative analysis would not be required if it can be demonstrated that the project would generate VMT which is equivalent to or less than what was assumed in the General Plan EIR. Examples of such projects include:

- Local-serving retail and other local-serving development, which generally reduces existing trip distances by providing services in closer proximity to residential areas, and therefore reduce VMT.

- Multi-family residences, which generally have fewer trips per household than single-family residences, and therefore also produce less VMT per unit.

- Infill projects in developed areas generally have shorter trips, reduced vehicle trips, and therefore less VMT.

- Pedestrian, bicycle, transit, and electric vehicle transportation projects.

- Residential projects in low per-capita household VMT areas and office projects in low per-worker VMT areas (85 percent or less than the regional average) as shown on maps maintained by SACOG or within low VMT areas as shown within Table 4.3-8 of the General Plan EIR.

When quantitative analysis is required, the threshold of 12.8 VMT/capita may be used for projects not within the scope of the General Plan EIR, provided the cumulative context of the 2035 General Plan has not changed substantially. Since approval of the 2035 General Plan, the City has not annexed new land, substantially changed roadway network assumptions, or made any other changes to the 2035 assumptions which would require an update to the City's VMT thresholds contained within the General Plan EIR. Therefore, the threshold of 12.8 VMT/capita remains appropriate.

Given the Project is consistent with the General Plan, further VMT analysis is not required pursuant to the tiering provisions of CEQA.

Impacts with regard to items c and d are assessed based on the expert judgment of the City Engineer and City Fire Department, as based upon facts and consistency with the City's Design and Construction Standards.

Discussion of Checklist Answers:

a) The City of Roseville has adopted a Pedestrian Master Plan, Bicycle Master Plan, and Short-Range Transit Plan. The project was reviewed for consistency with these documents. The medical office building proposes 17 short-term bicycle parking spaces and the parking garage proposes 7 short-term bicycle parking spaces and 24 long-term bicycle parking spaces in the parking garage. Because the Project is proposed in an area of the campus where public improvements are present, the Project would not be required to install new public improvements. The proposed Project is consistent with the underlying land use designation and does not contribute new, unanticipated trips; a cumulative conditions traffic model is not required.

b) Traffic analyses focus on the number of trips traveling in specified areas during peak periods, in order to quantify impacts as specific intersections. However, there is no direct relationship between the number of trips and the amount of VMT generated by a use. Projects which substantially increase trips to a specific area may in fact decrease VMT in the City. As an example, if a new grocery store is added to an area, customers who go to that store were already going to a grocery store elsewhere, and are most likely to choose the new store because it is closer to home or on their way to another location (e.g. work). So while the store would generate substantial new trips, it would lower Citywide VMT. Unless a project includes unique characteristics, nonresidential projects do not increase VMT; they divert existing trips into a similar or more efficient pathway. The parking garage expansion and MOB 7 are both consistent with the General Plan land use designation. The proposed parking addition and new MOB 7 were previously analyzed and included in the 2006 approved CUP. The Planning Commission in 2006 approved the expansion of the campus from the originally approved 804,000 square feet to 1,100,000 square feet. The proposed parking garage expansion and MOB 7 were both anticipated and analyzed in the Sutter campus expansion from 2006. Further, the Sutter campus expansion was reviewed and anticipated in the General Plan Update. Assumptions of the overall campus and square footage are consistent with the General Plan update and the previously approved campus expansion. Therefore, impacts would be less than significant.

c, d) The project has been reviewed by the City Engineering and City Fire Department staff, and has been found to be consistent with the City's Design Standards. Furthermore, standard conditions of approval added to

all City project require compliance with Fire Codes and other design standards. Compliance with existing regulations ensure that impacts are less than significant.

XVIII. Tribal Cultural Resources

As described within the Open Space and Conservation Element of the City of Roseville General Plan, the Roseville region was within the territory of the Nisenan (also Southern Maidu or Valley Maidu). Two large permanent Nisenan habitation sites have been identified and protected within the City's open space (in Maidu Park). Numerous smaller cultural resources, such as midden deposits and bedrock mortars, have also been recorded in the City. A majority of documented sites within the City are located in areas designated for open space uses.

Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as 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:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?			X	
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 the lead agency shall consider the significance of the resource to a California Native American tribe.			X	

Thresholds of Significance and Regulatory Setting:

In addition to archeological resources, tribal cultural resources are also given particular treatment. Tribal cultural resources are defined in Public Resources Code Section 21074, as either 1) a site, feature, place, geographically-defined cultural landscape, sacred place, or object with cultural value to a California Native American Tribe, that is listed or eligible for listing on the California Register or Historical Resources, or on a local register of historical resources or as 2) a resource determined by the lead agency, supported by substantial

evidence, to be significant according to the historical register criteria in Public Resources Code section 5024.1(c), and considering the significance of the resource to a California Native American Tribe.

Discussion of Checklist Answers:

a) The Northeast Roseville Specific Plan EIR included historic and cultural resources study, which included research on whether any listed or eligible sites had been documented in the project area. No such sites were found. However, standard mitigation measures apply which are designed to reduce impacts to any previously undiscovered resources, should any be found on-site. The measure requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. The project will not result in any new impacts beyond those already discussed and disclosed in the Northeast Roseville Specific Plan EIR; project-specific impacts are less than significant.

b) Notice of the proposed project was mailed to tribes which had requested such notice pursuant to AB 52. A request for consultation was not received. As discussed in item a, above, no resources are known to occur in the area. However, standard mitigation measures apply which are designed to reduce impacts to resources, should any be found on-site. The measure requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. The project will not result in any new impacts beyond those already discussed and disclosed in the Northeast Roseville Specific Plan EIR; project-specific impacts are less than significant.

XIX. Utilities and Service Systems

Water and sewer services will be provided by the City of Roseville. The developer will be responsible for extending new lines onto the site in order to serve the project. Storm water will be collected on-site and transferred via the existing storm drain system into an off-site storm drain system. Solid waste will be collected by the City of Roseville's Refuse Department. The City of Roseville will provide electric service to the site, while natural gas will be provided by PG&E. Comcast will provide cable. The project has been reviewed by the City's Engineering Division, Environmental Utilities, Roseville Electric and PG&E. Adequate services are available for the project.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to utilities and service systems is based directly on the CEQA Guidelines checklist items a–e listed above.

Discussion of Checklist Answers:

a) The project is consistent with the Specific Plan, and will be required to construct any utilities infrastructure necessary to serve the project, as well as pay fees which fund the operation of the facilities and the construction of major infrastructure. The construction impacts related to building the major infrastructure were disclosed in the EIR for the Specific Plan, and appropriate mitigation was adopted. Minor additional infrastructure will be constructed within the project site to tie the project into the major systems, but these facilities will be constructed in locations where site development is already occurring as part of the overall project; there are no additional substantial impacts specific or particular to the minor infrastructure improvements.

b) The City of Roseville 2015 Urban Water Management Plan (UWMP), adopted May 2016, estimates water demand and supply for the City through the year 2040, based on existing land use designations and population projections. In addition, the General Plan EIR estimates water demand and supply for ultimate General Plan buildout. The project is consistent with existing land use designations, and is therefore consistent with the

assumptions of the UWMP and General Plan EIR. The UWMP indicates that existing water supply sources are sufficient to meet all near term needs, estimating an annual water demand of 48,762 acre-feet per year (AFY) by the year 2035 and existing surface and recycled water supplies in the amount of 60,400 AFY in normal years. The UWMP establishes some water supply deficit during dry year scenarios, but establishes that mandatory water conservation measures and the use of groundwater to offset reductions in surface water supplies are sufficient to offset the deficit. The project, which is consistent with existing land use designations, would not require new or expanded water supply entitlements.

c) The proposed project would be served by the Dry Creek Wastewater Treatment Plant (DCWWTP). The Central Valley Regional Water Quality Control Board (RWQCB) regulates water quality and quantity of effluent discharged from the City's wastewater treatment facilities. The DCWWTP has the capacity to treat 18 million gallons per day (mgd) and is currently treatingn8.9 mgd. The project is consistent with existing land use designations, which is how infrastructure capacity is planned. Therefore, the volume of wastewater generated by the proposed project could be accommodated by the facility; the proposed project will not contribute to an exceedance of applicable wastewater treatment requirements. The impact would be less than significant.

d, e) The Western Placer Waste Management Authority is the regional agency handling recycling and waste disposal for Roseville and surrounding areas. The regional waste facilities include a Material Recovery Facility (MRF) and the Western Regional Sanitary Landfill (WRSL). Currently, the WRSL is permitted to accept up to 1,900 tons of municipal solid waste per day. According to the solid waste analysis of the General Plan EIR, under current projected development conditions the WRSL has a projected lifespan extending through 2058. There is sufficient existing capacity to serve the proposed project. Though the project will contribute incrementally to an eventual need to find other means of waste disposal, this impact of City buildout has already been disclosed and mitigation applied as part of each Specific Plan the City has approved. All residences and business in the City pay fees for solid waste collection, a portion of which is collected to fund eventual solid waste disposal expansion. The project will not result in any new impacts associated with major infrastructure. Environmental Utilities staff has reviewed the project for consistency with policies, codes, and regulations related to waste disposal and waste reduction regulations and policies and has found that the project design is in compliance.

XX. Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
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?				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?				X
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?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to wildfire is based directly on the CEQA Guidelines checklist items a–d listed above. The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local responsibility.

Discussion of Checklist Answers:

a–d) Checklist questions a–d above do not apply, because the project site is not within a Very High Fire Hazard Severity Zone and is not in a CAL FIRE responsibility area.

XXI. Mandatory Findings of Significance

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
endangered, threatened or rare species, or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Significance Criteria and Regulatory Setting:

The significance of impacts related to mandatory findings of significance is based directly on the CEQA Guidelines checklist items a–c listed above.

Discussion of Checklist Answers:

a–c) Long term environmental goals are not impacted by the proposed project. The cumulative impacts do not deviate beyond what was contemplated in the Specific Plan EIR, and mitigation measures have already been incorporated via the Specific Plan EIR. With implementation of the City's Mitigating Ordinances, Guidelines, and Standards and best management practices, mitigation measures described in this chapter, and permit conditions, the proposed project will not have a significant impact on the habitat of any plant or animal species. Based on the foregoing, the proposed project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of any wildlife species, or create adverse effects on human beings.

ENVIRONMENTAL DETERMINATION:

In reviewing the site specific information provided for this project and acting as Lead Agency, the City of Roseville, Development Services Department, Planning Division has analyzed the potential environmental impacts created by this project and determined that the impacts are less than significant. As demonstrated in the initial study checklist, there are no "project specific significant effects which are peculiar to the project or site" that cannot be reduced to less than significant effects through mitigation (CEQA Section 15183) and therefore an EIR ***is not*** *required. Therefore,* ***on the basis of the foregoing initial study:***

STAFF TO DELETE INAPPLICALBE STATEMENT

[**X**] I find that the proposed project WILL NOT have a significant effect on the environment and a *NEGATIVE DECLARATION* has been prepared.

Initial Study Prepared by:

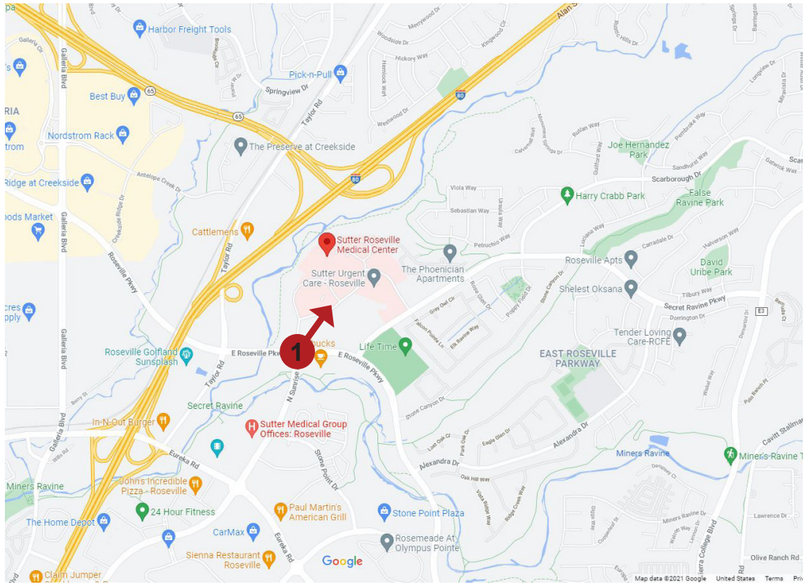


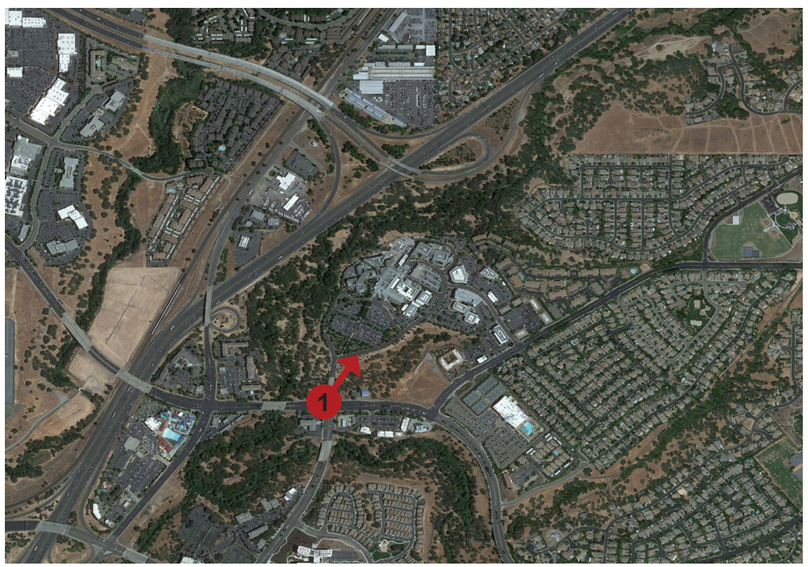
Escarlet Mar, Associate Planner
City of Roseville, Development Services – Planning Division

Attachments:

1. Visual Analysis
2. Nightview Study
3. CalEEMod Report

VIEW 1

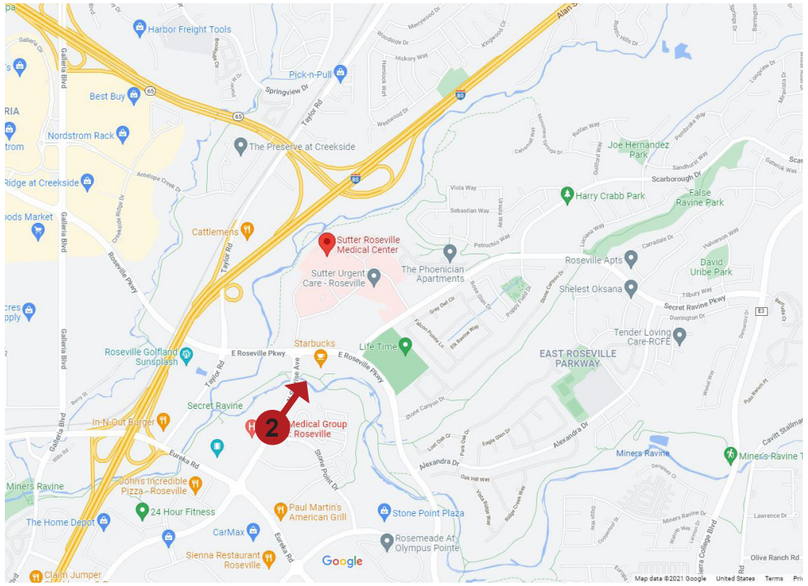


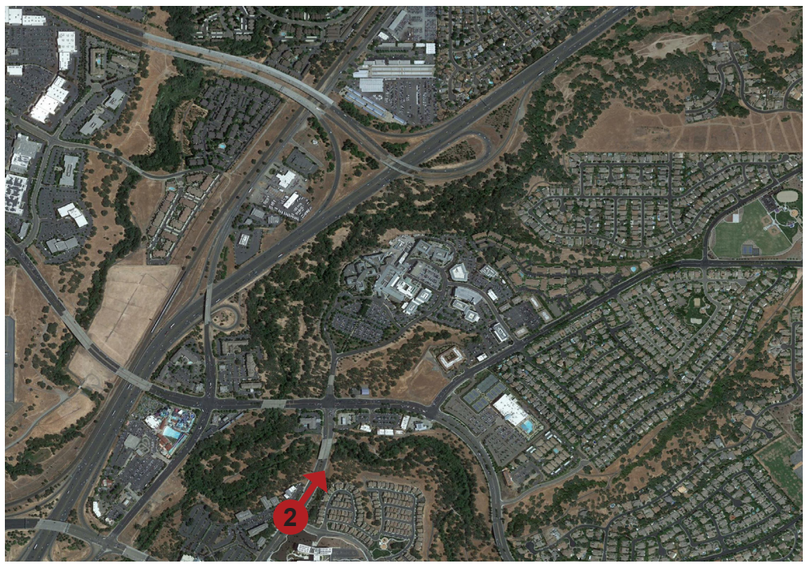




E. Roseville Parkway & N. Sunrise Ave.

VIEW 2

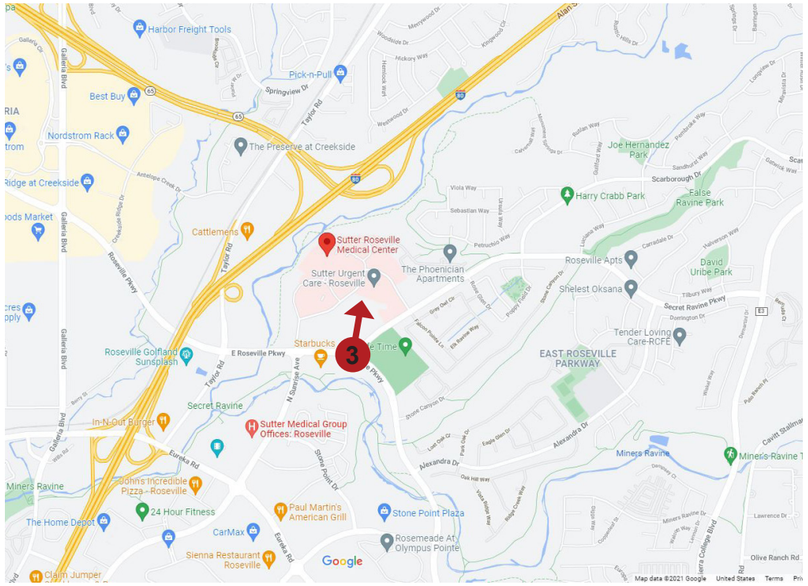


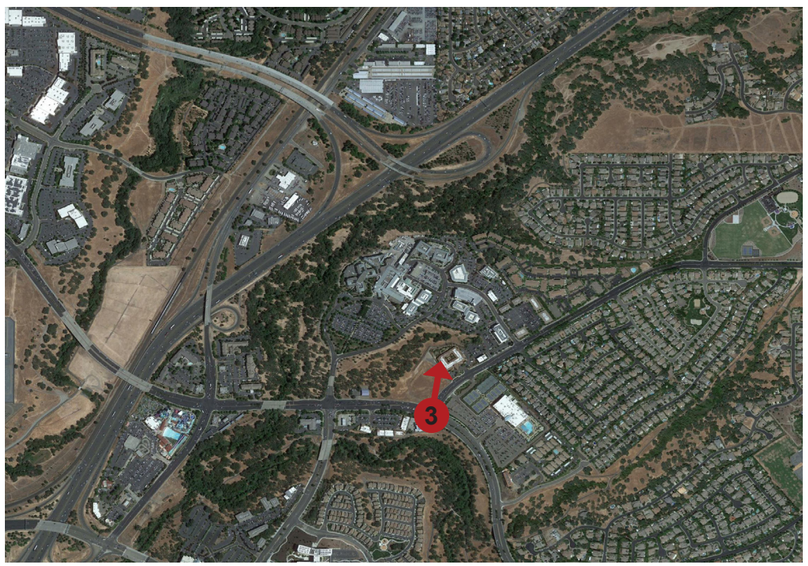




Stone Point Drive & N. Sunrise Ave.

VIEW 3

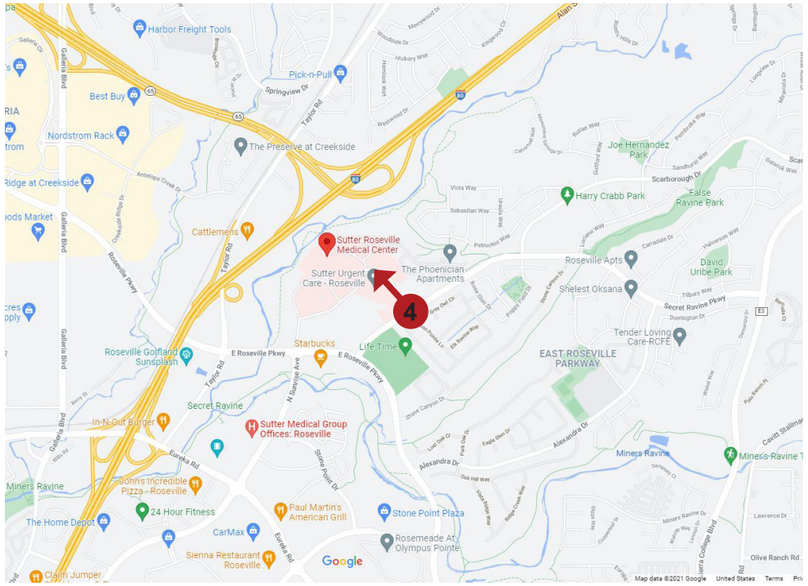


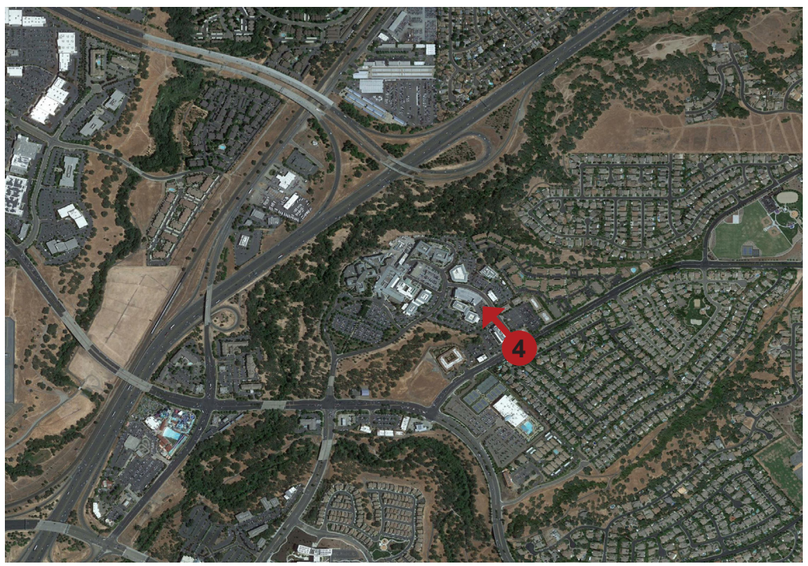




E. Roseville Parkway & Secret Ravine Parkway

VIEW 4







Secret Ravine Parkway & Medical Plaza

Sutter Health
Sutter Roseville Medical Center

Dreyfuss + Blackford

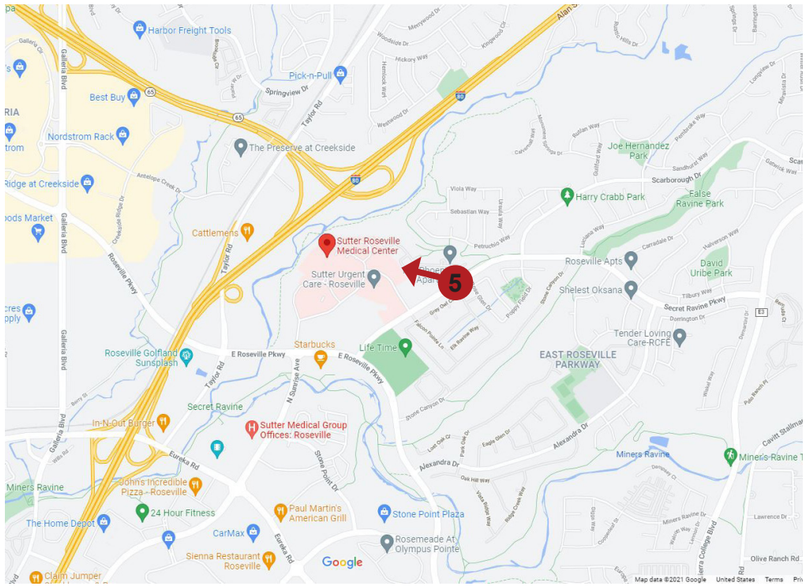
SEPAROVICH/DOMICH REAL ESTATE DEVELOPMENT

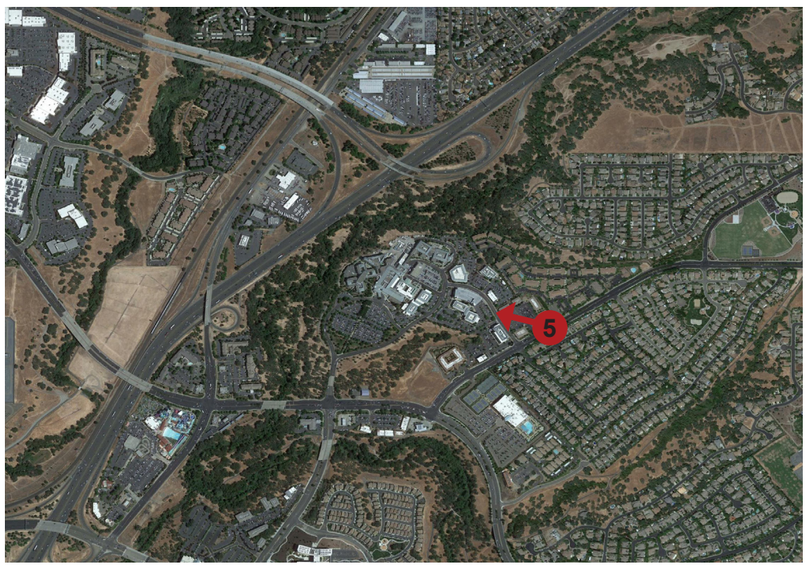
RAVEL RASMUSSEN PROPERTIES

SRMC PARKING GARAGE EXPANSION

03/28/22

VIEW 5







Secret Ravine Parkway North of Medical Plaza

Sutter Health
Sutter Roseville Medical Center

Dreyfuss+ Blackford

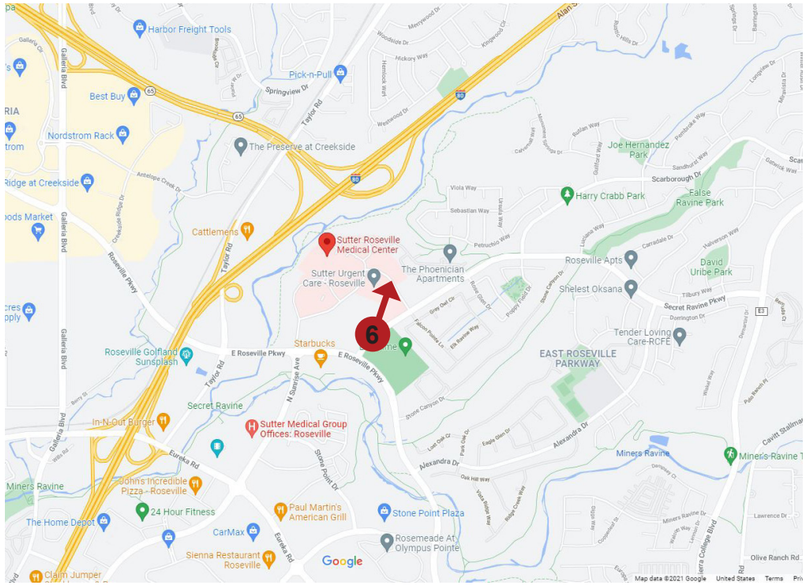
SEPAROVICH/DOMICH

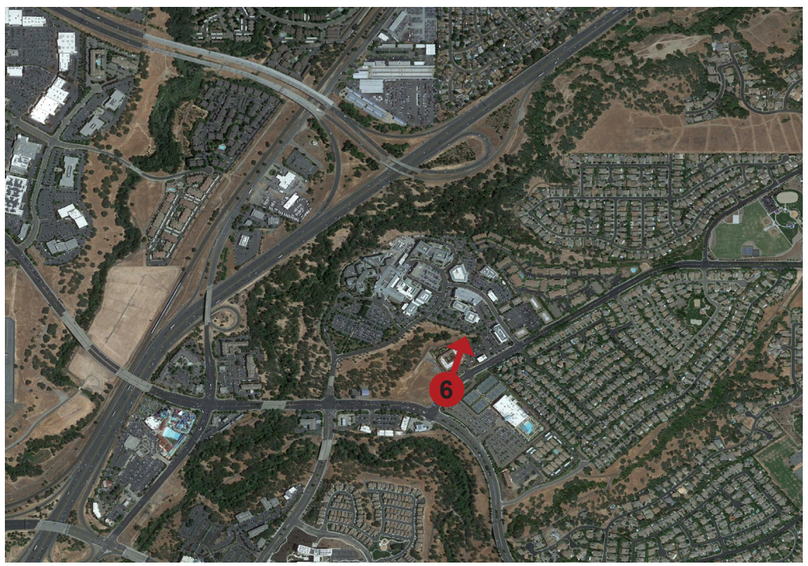
RAVEL RASMUSSEN PROPERTIES

SRMC PARKING GARAGE EXPANSION

03/28/22

VIEW 6







Secret Ravine Parkway - South

Sutter Health
Sutter Roseville Medical Center

Dreyfuss + Blackford

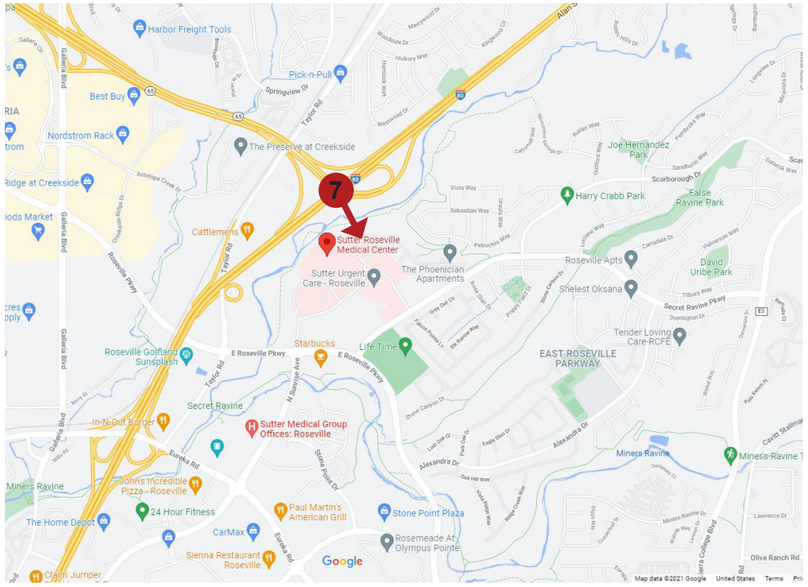
SEPAROVICH/DOMICH REAL ESTATE DEVELOPMENT

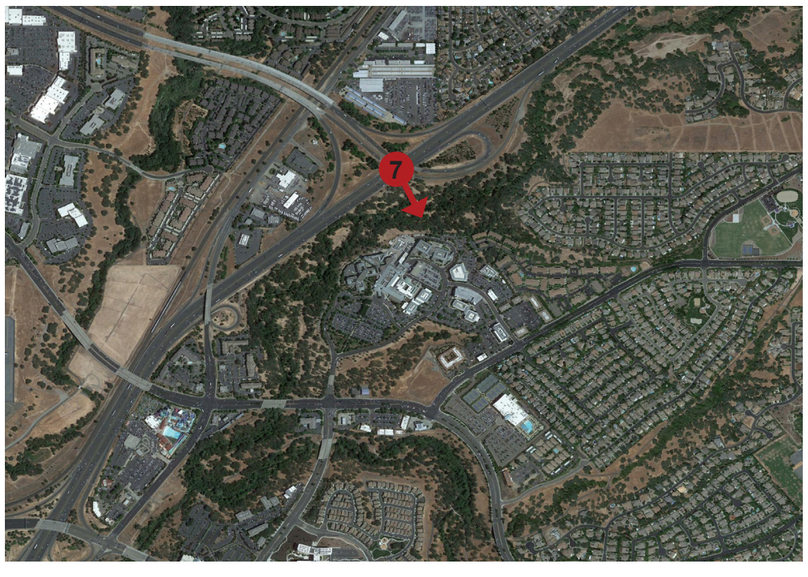
RAVEL RASMUSSEN PROPERTIES

SRMC PARKING GARAGE EXPANSION

03/28/22

VIEW 7







Interstate 80 & Highway 65

Sutter Health
Sutter Roseville Medical Center

Dreyfuss + Blackford

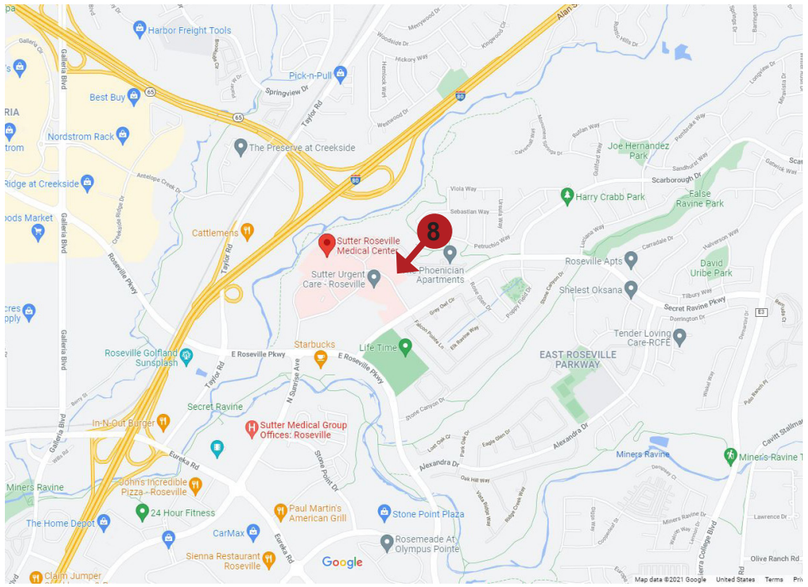
SEPAROVICH/DOMICH
REAL ESTATE DEVELOPMENT

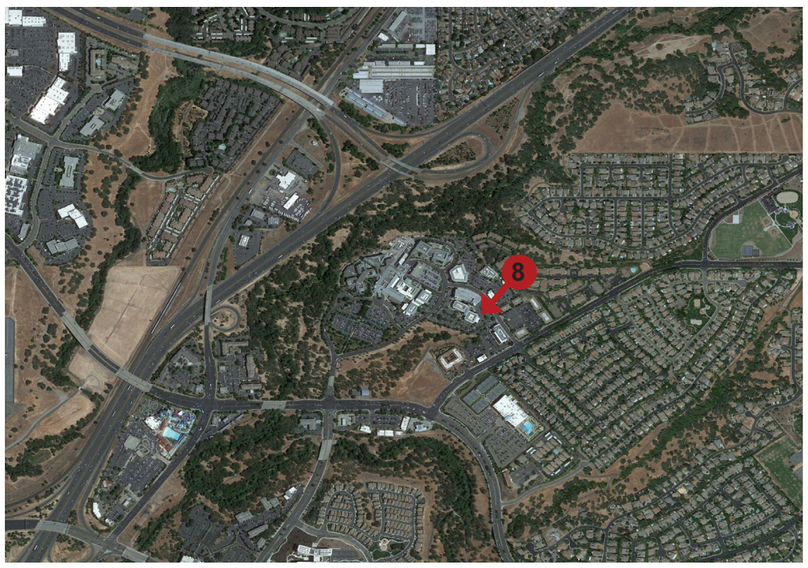
RAVEL RASMUSSEN PROPERTIES

SRMC PARKING GARAGE EXPANSION

03/28/22

VIEW 8

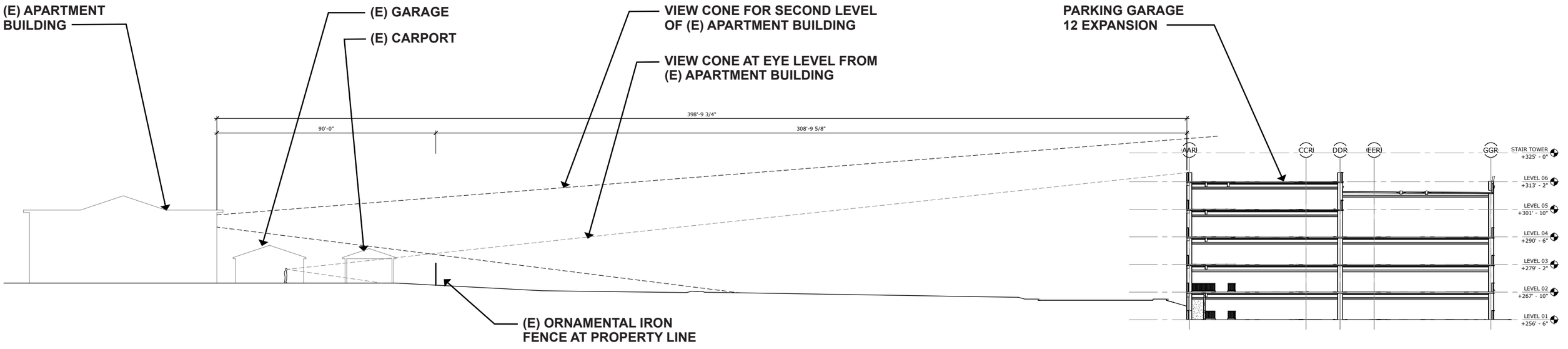




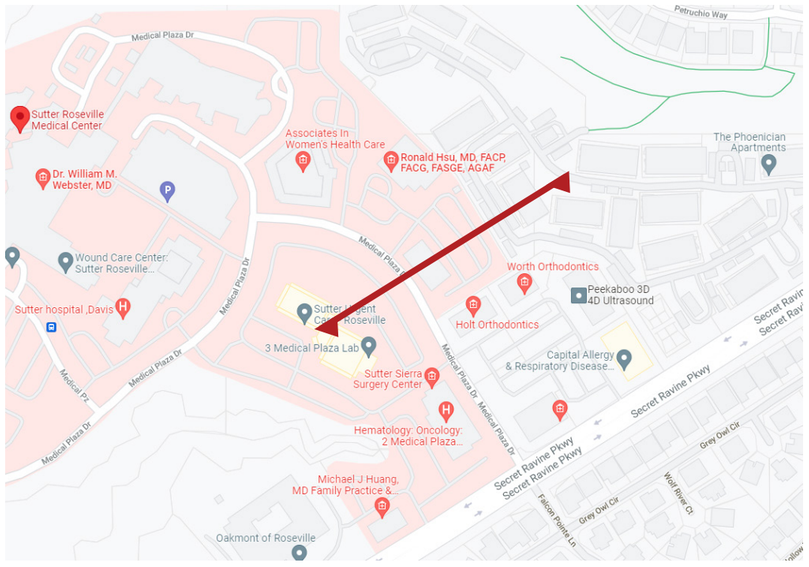


View from the Apartments

VIEW FROM APTS.







Sutter Health
Sutter Roseville Medical Center

Dreyfuss + Blackford

BUILDERS

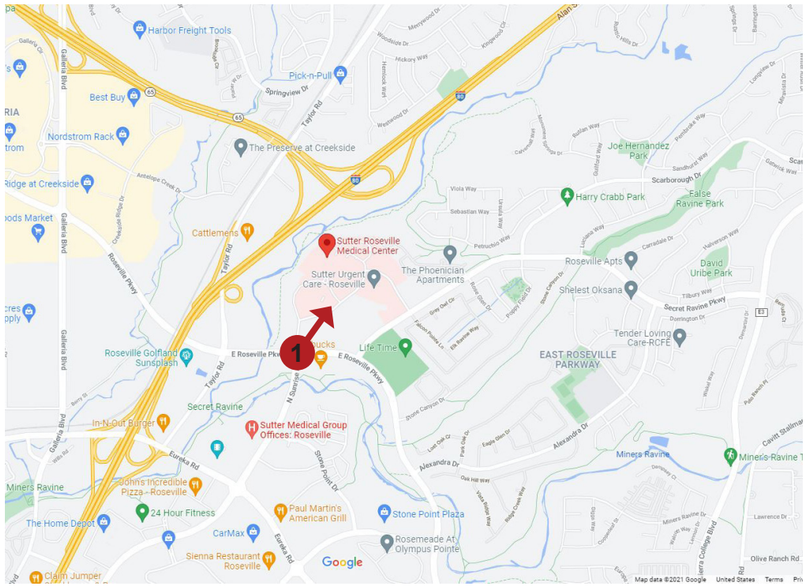
SEPAROVICH/DOMICH REAL ESTATE DEVELOPMENT

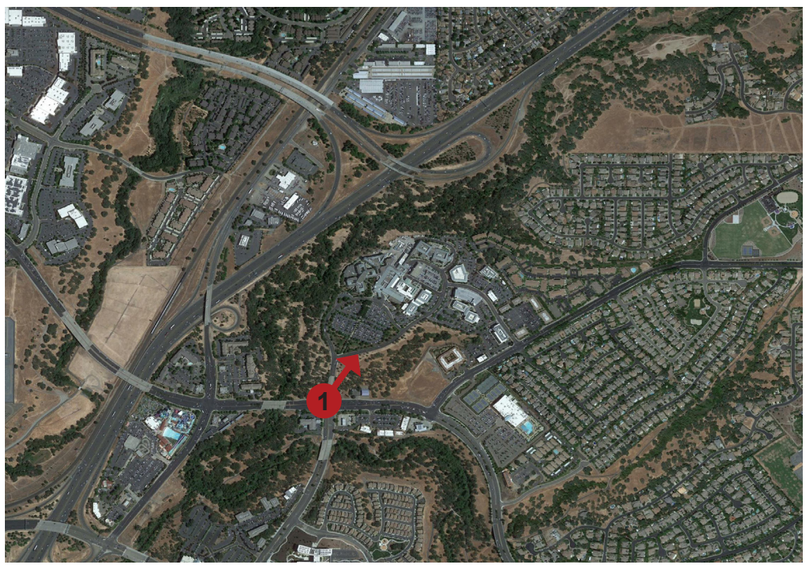
RAVEL RASMUSSEN PROPERTIES

SRMC PARKING GARAGE EXPANSION

03/04/22

VIEW 1







E. Roseville Parkway & N. Sunrise Ave.

Sutter Health
Sutter Roseville Medical Center

Dreyfuss + Blackford

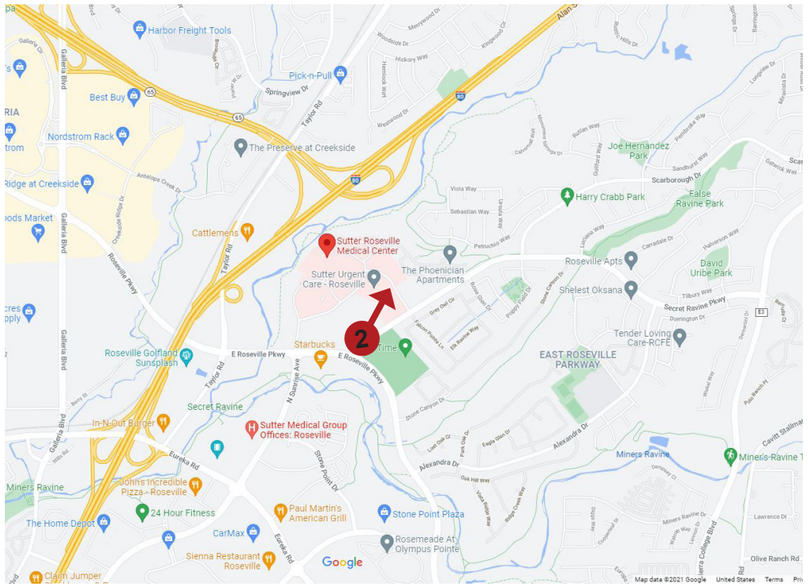
SEPAROVICH/DOMICH
REAL ESTATE DEVELOPMENT

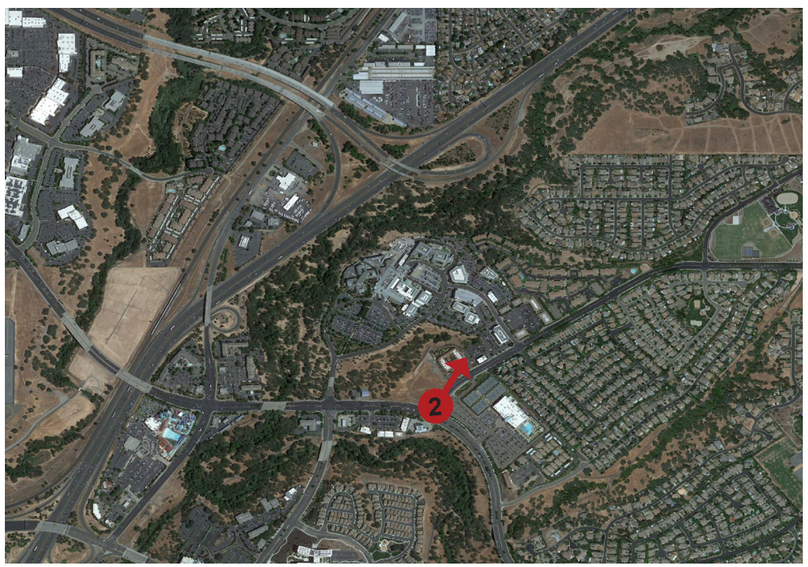
RAVEL RASMUSSEN PROPERTIES

SUTTER ROSEVILLE MEDICAL CENTER MOB 7

02/25/22

VIEW 2

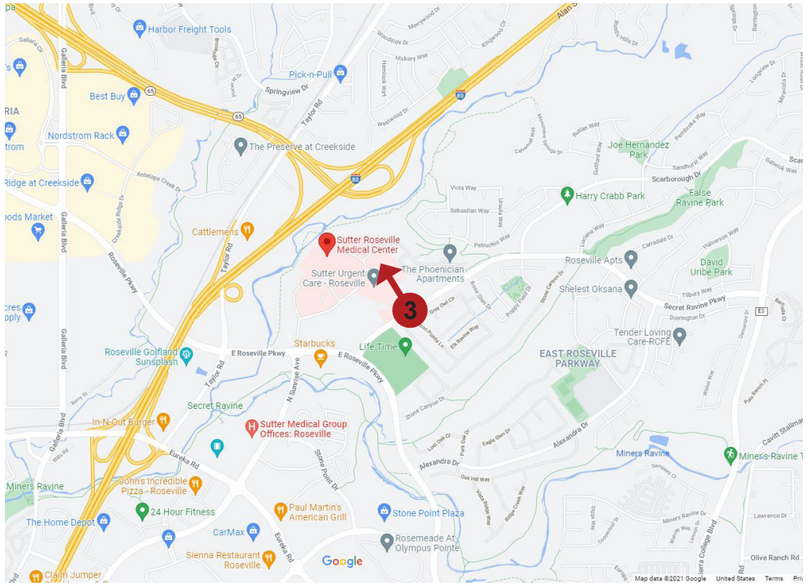


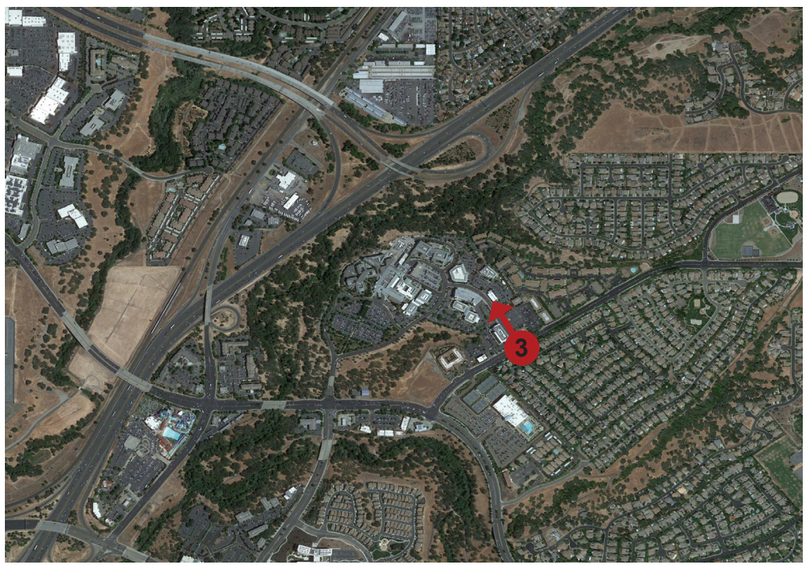


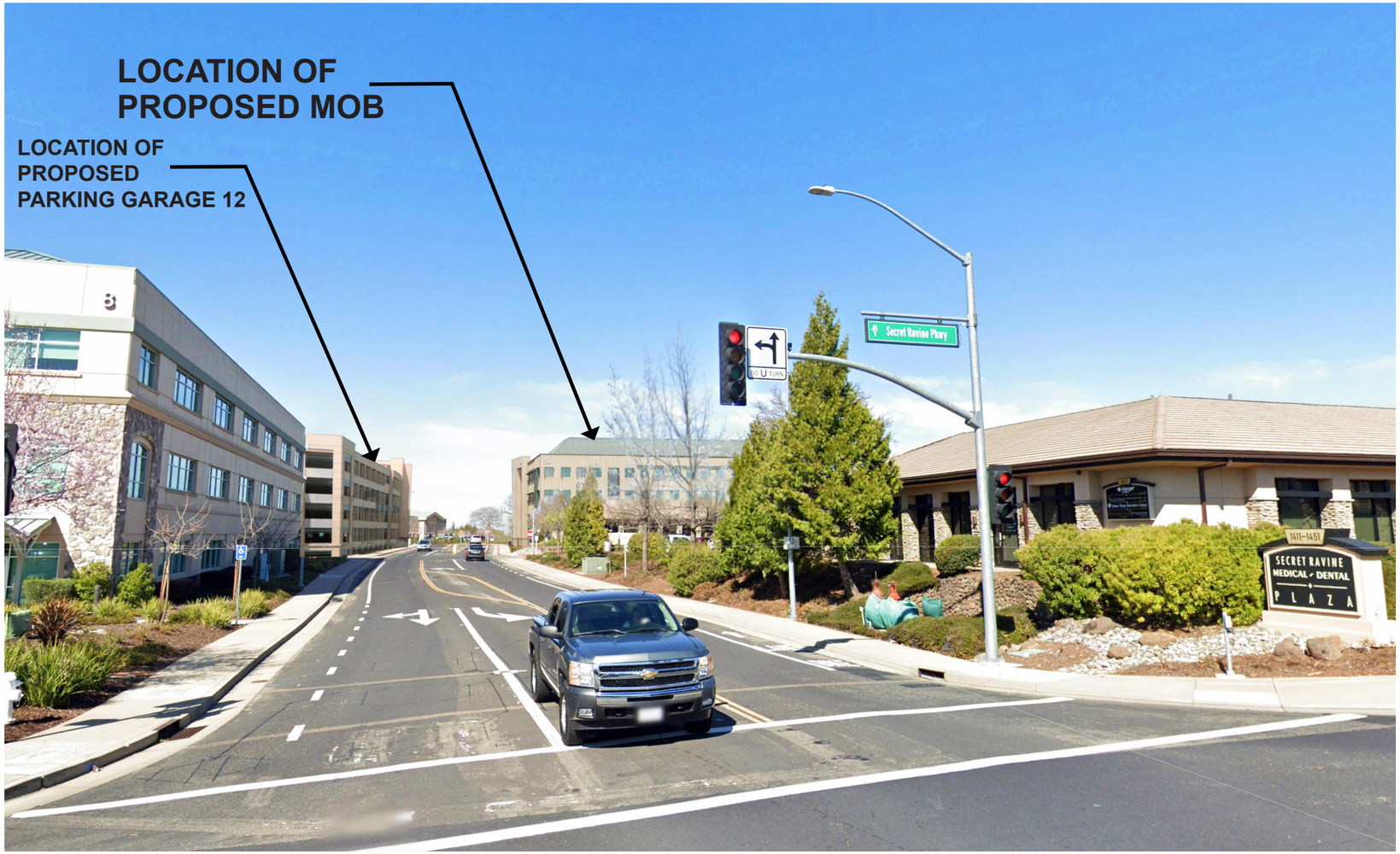


E. Roseville Parkway & Secret Ravine Parkway

VIEW 3







Secret Ravine Parkway & Medical Plaza Drive

Sutter Health
Sutter Roseville Medical Center

Dreyfuss+ Blackford

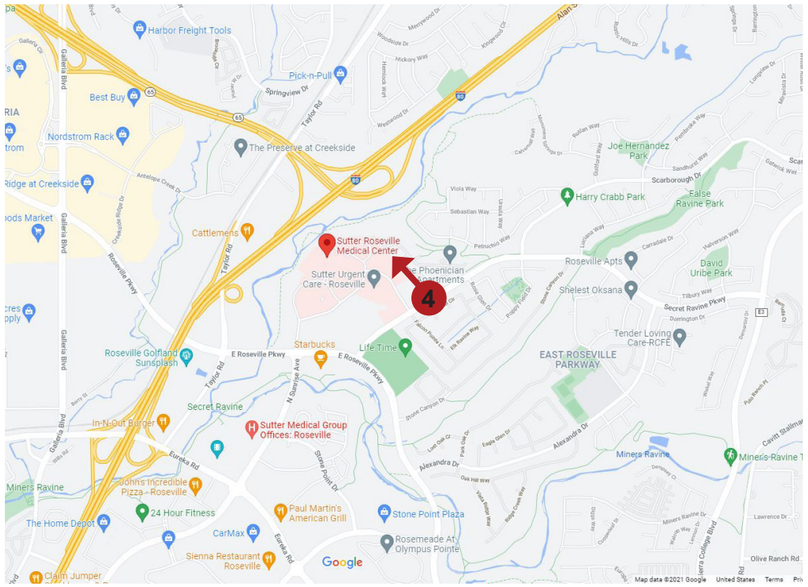
SEPAROVICH/DOMICH REAL ESTATE DEVELOPMENT

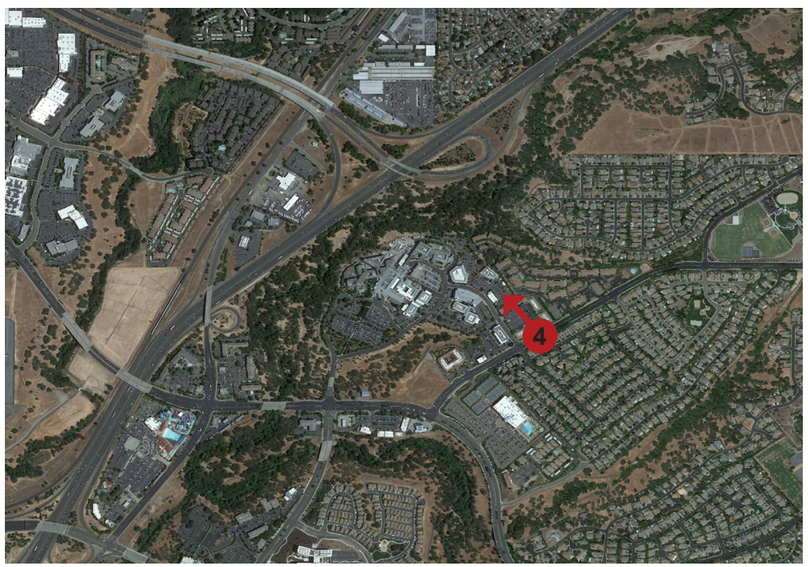
RAVEL RASMUSSEN PROPERTIES

SUTTER ROSEVILLE MEDICAL CENTER MOB 7

02/25/22

VIEW 4







Secret Ravine Parkway - North

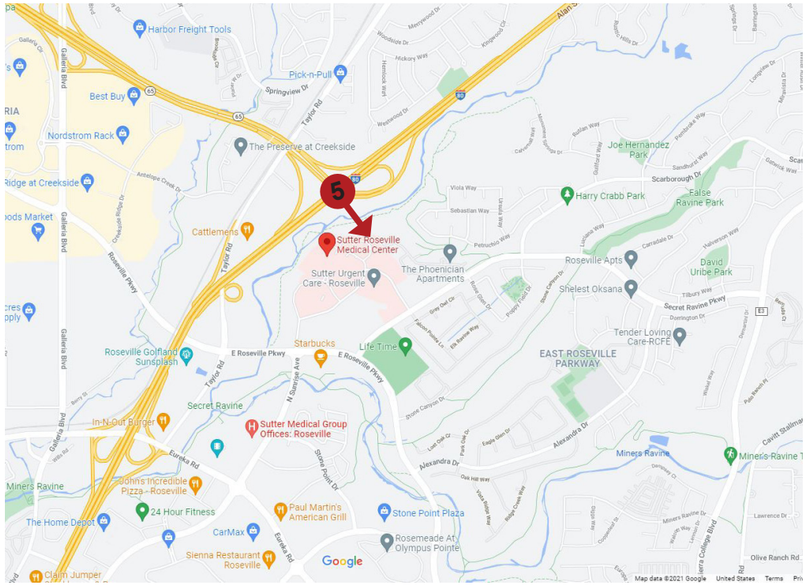
Sutter Health
Sutter Roseville Medical Center

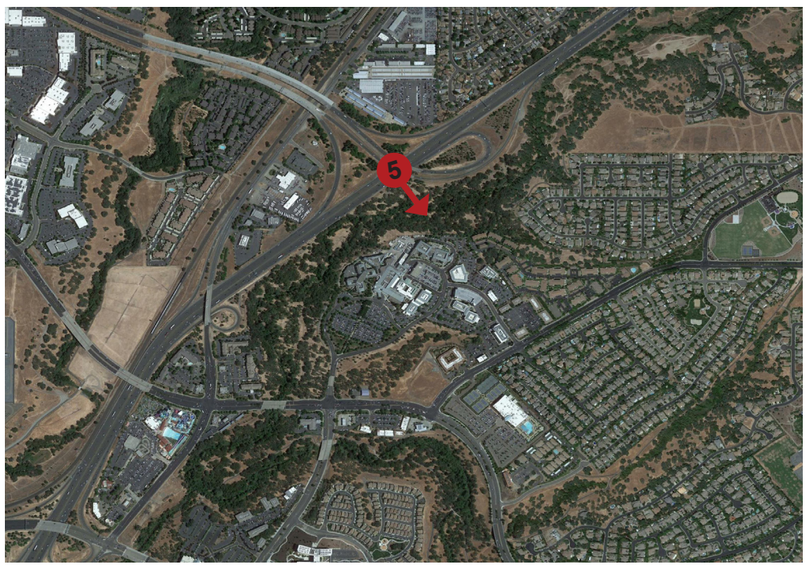
Dreyfuss+ Blackford

SEPAROVICH/DOMICH REAL ESTATE DEVELOPMENT

RAVEL RASMUSSEN PROPERTIES

VIEW 5

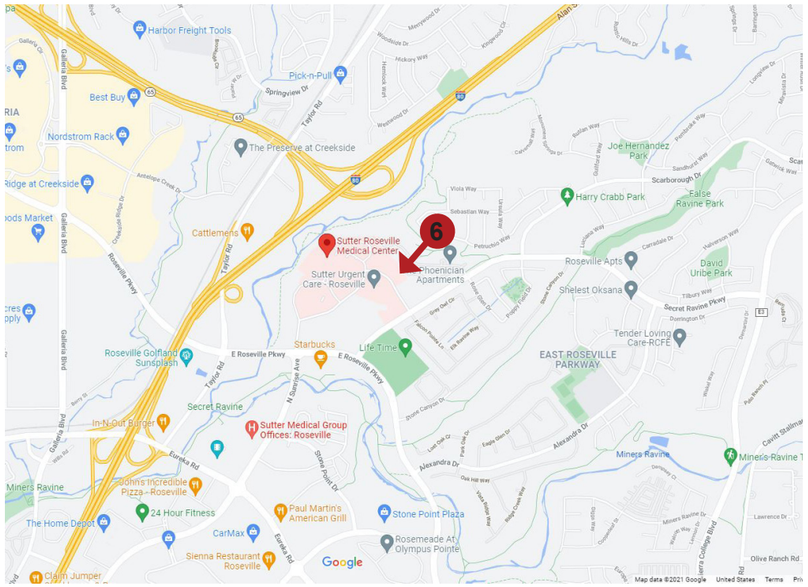


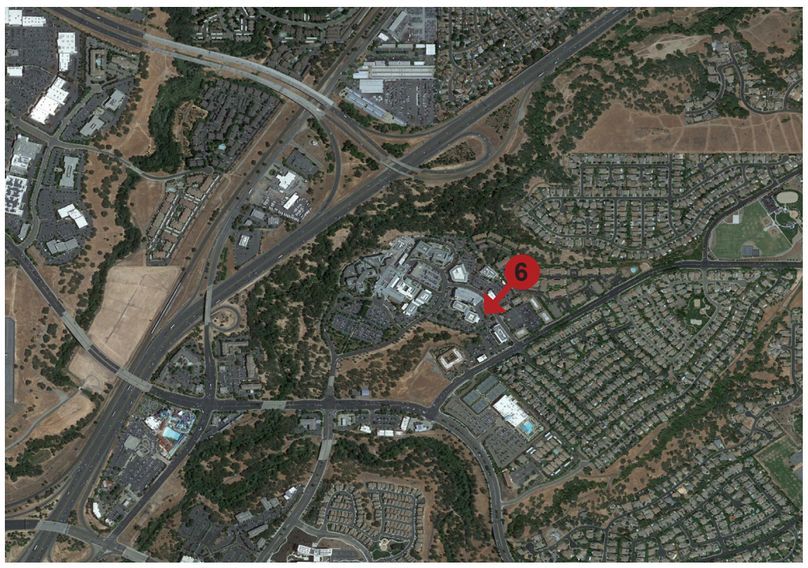




Interstate 80 & Highway 65

VIEW 6

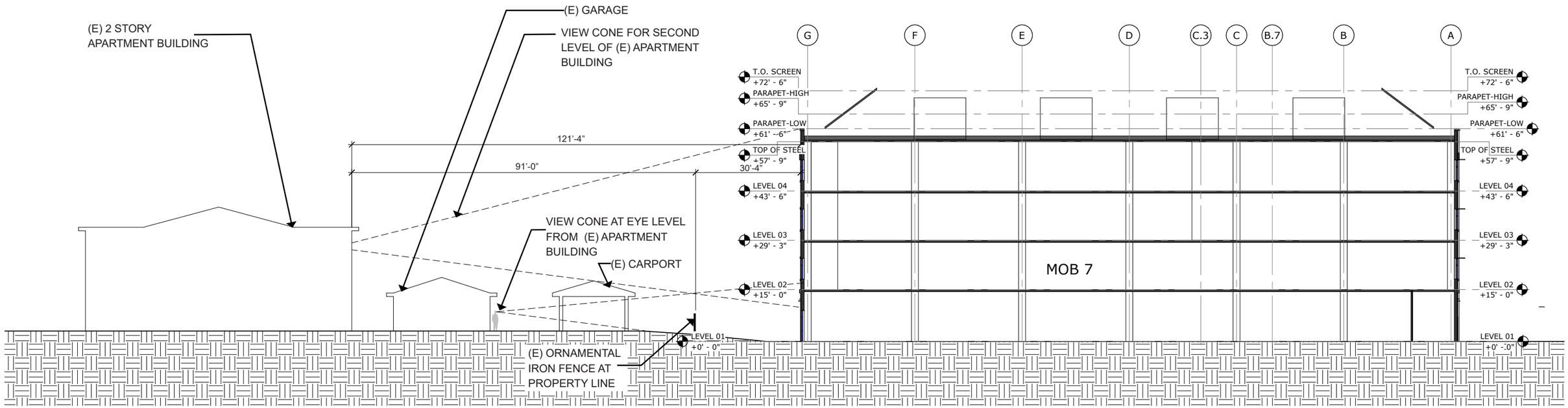




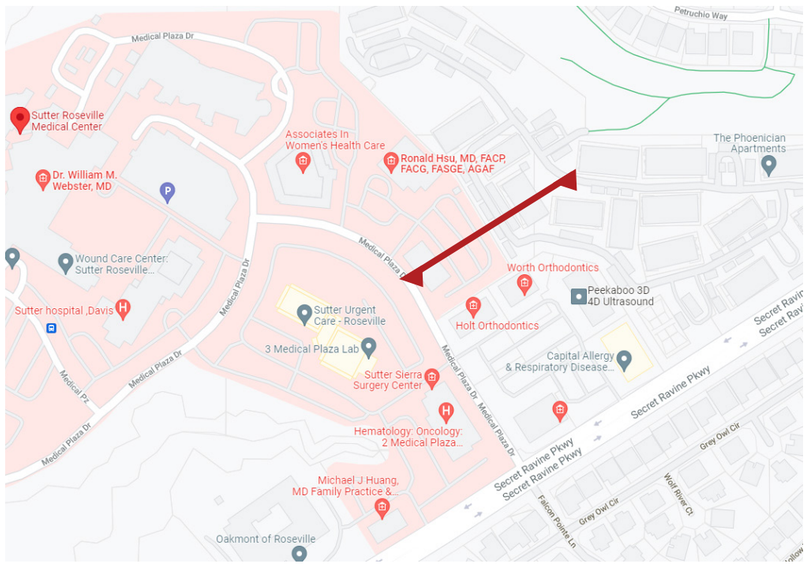


View from the Apartments

SITE SECTION







Sutter Health
Sutter Roseville Medical Center

Dreyfuss+ Blackford

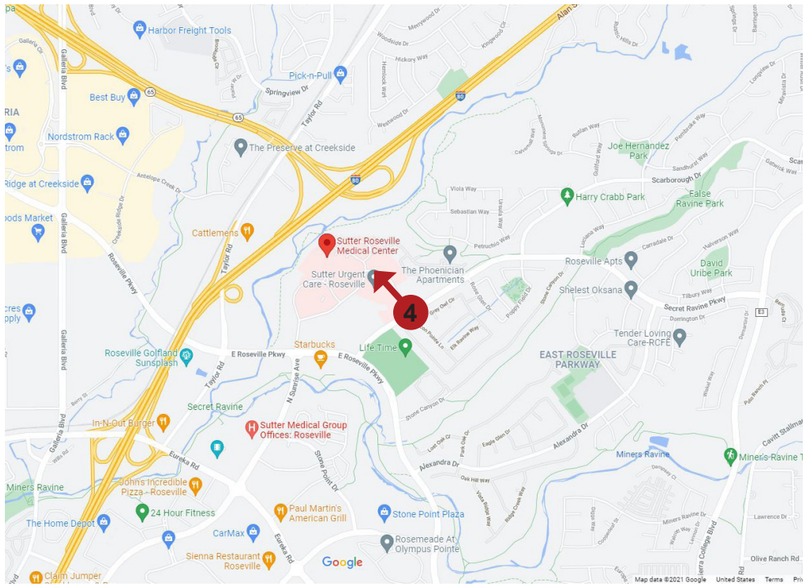
SEPAROVICH/DOMICH

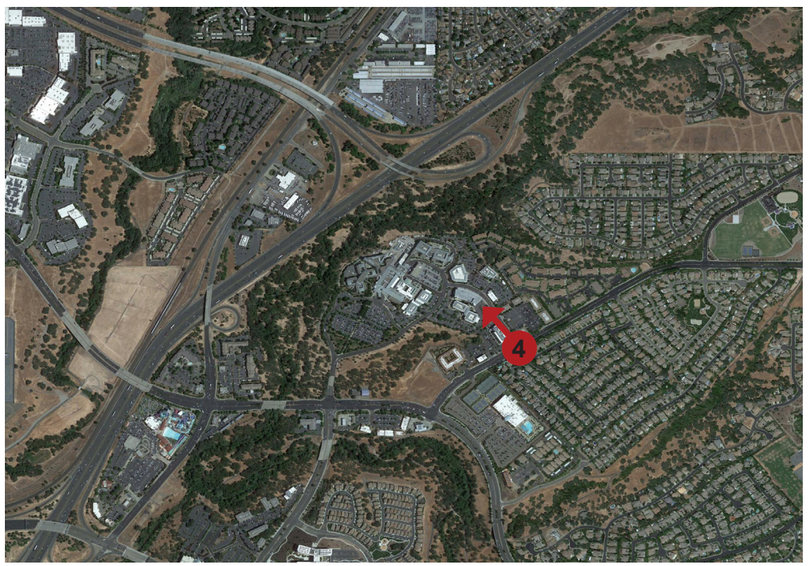
RAVEL RASMUSSEN PROPERTIES

SUTTER ROSEVILLE MEDICAL CENTER MOB 7

02/25/21

VIEW 9

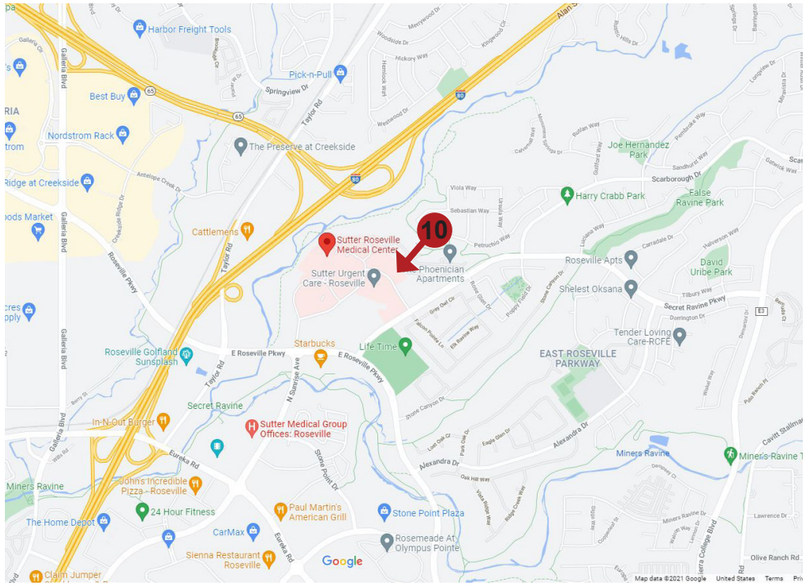


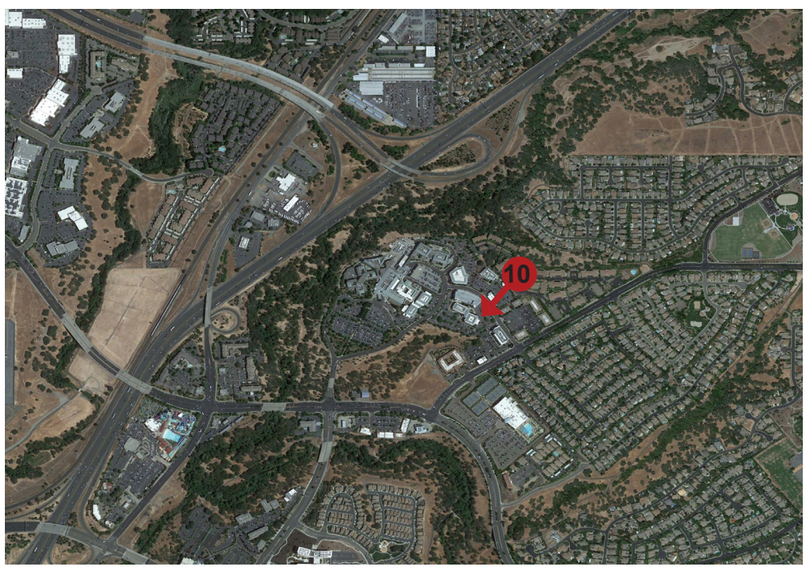


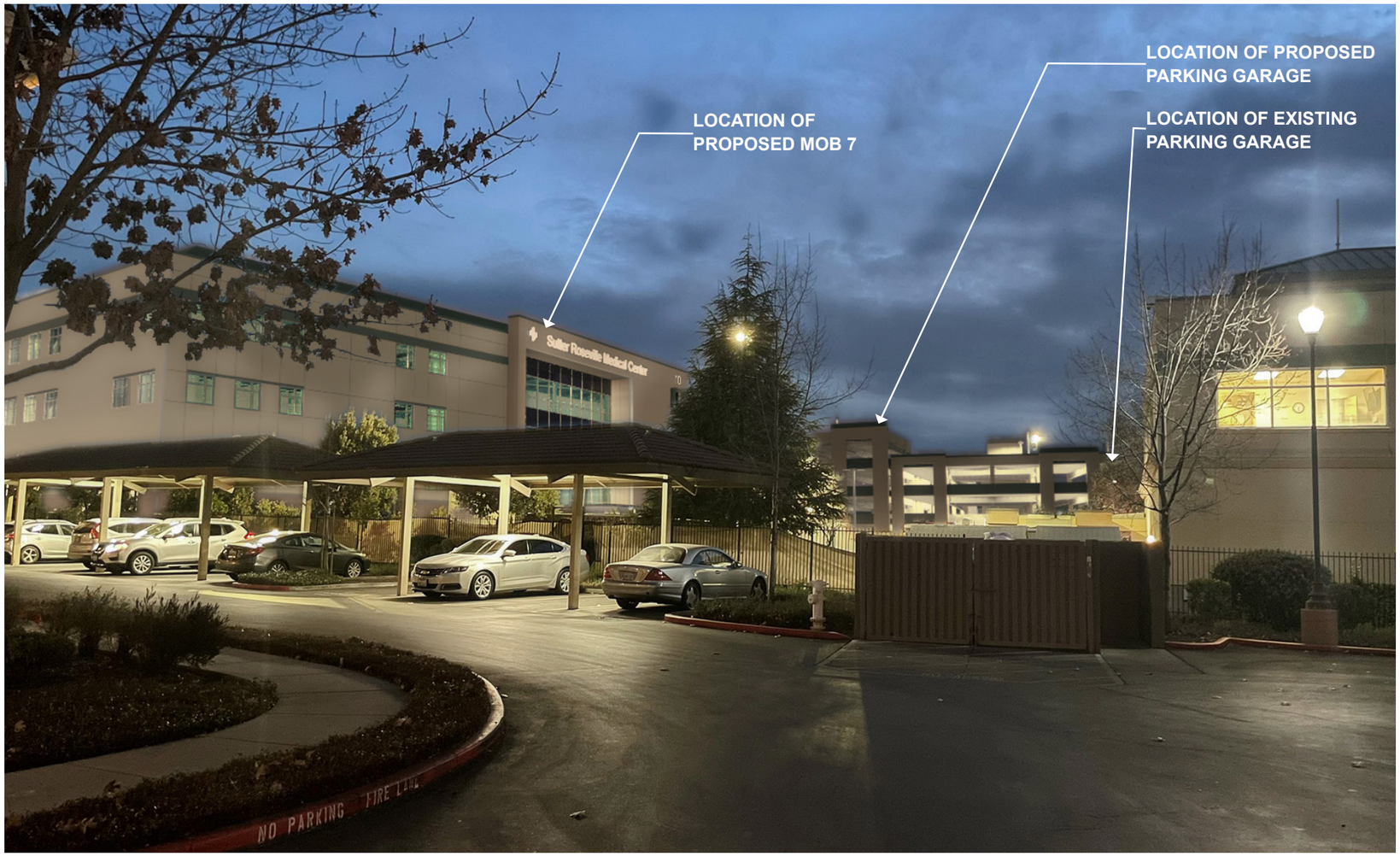


Night View at Secret Ravine Parkway & Medical Plaza

VIEW 10







Night View from the Apartments

Sutter Health
Sutter Roseville Medical Center

Dreyfuss+ Blackford

SEPAROVICH/DOMICH REAL ESTATE DEVELOPMENT

RAVEL RASMUSSEN PROPERTIES

SRMC PARKING GARAGE EXPANSION

03/28/22

ATTACHMENT 3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sutter Parking Garage Expansion & MOB 7

Placer County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.59	100,000.00	0
Enclosed Parking with Elevator	192.00	1000sqft	0.94	192,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage changed based on submitted plans.

Area Mitigation -

Architectural Coating -

Construction Phase - Entire site will be graded and prepped as one phase, but building construction will occur in two phases. Duration of building construction and finishes was extended to account for this.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	PhaseEndDate	4/25/2023	5/2/2023
tblConstructionPhase	PhaseEndDate	3/28/2023	5/9/2023

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	2.30	1.59
tblLandUse	LotAcreage	4.41	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.3034	17.2563	18.2050	0.0435	7.1647	0.7427	7.9074	3.4465	0.7000	4.1298	0.0000	4,207.5922	4,207.5922	0.7698	0.1818	4,273.5005
2023	67.7210	24.5396	29.8426	0.0619	1.4425	1.0658	2.4425	0.3900	1.0056	1.3782	0.0000	5,964.2537	5,964.2537	1.0014	0.1788	6,042.1566
Maximum	**67.7210**	**24.5396**	**29.8426**	**0.0619**	**7.1647**	**1.0658**	**7.9074**	**3.4465**	**1.0056**	**4.1298**	**0.0000**	**5,964.2537**	**5,964.2537**	**1.0014**	**0.1818**	**6,042.1566**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.3034	17.2563	18.2050	0.0435	7.1647	0.7427	7.9074	3.4465	0.7000	4.1298	0.0000	4,207.5922	4,207.5922	0.7698	0.1818	4,273.5005
2023	67.7210	24.5396	29.8426	0.0619	1.4425	1.0658	2.4425	0.3900	1.0056	1.3782	0.0000	5,964.2537	5,964.2537	1.0014	0.1788	6,042.1566
Maximum	**67.7210**	**24.5396**	**29.8426**	**0.0619**	**7.1647**	**1.0658**	**7.9074**	**3.4465**	**1.0056**	**4.1298**	**0.0000**	**5,964.2537**	**5,964.2537**	**1.0014**	**0.1818**	**6,042.1566**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Area	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	10.6605	10.7131	75.1778	0.1484	14.3949	0.1277	14.5225	3.8422	0.1198	3.9620		15,099.9963	15,099.9963	0.9500	0.7871	15,358.2948
Total	**13.1881**	**11.1512**	**75.5754**	**0.1510**	**14.3949**	**0.1610**	**14.5559**	**3.8422**	**0.1532**	**3.9954**		**15,625.4429**	**15,625.4429**	**0.9603**	**0.7967**	**15,886.8677**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	10.6605	10.7131	75.1778	0.1484	14.3949	0.1277	14.5225	3.8422	0.1198	3.9620		15,099.9963	15,099.9963	0.9500	0.7871	15,358.2948
Total	**13.1881**	**11.1512**	**75.5754**	**0.1510**	**14.3949**	**0.1610**	**14.5559**	**3.8422**	**0.1532**	**3.9954**		**15,625.4429**	**15,625.4429**	**0.9603**	**0.7967**	**15,886.8677**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/12/2022	5/16/2022	5	3	
2	Grading	Grading	5/17/2022	5/24/2022	5	6	
3	Building Construction	Building Construction	5/25/2022	5/9/2023	5	250	
4	Paving	Paving	3/29/2023	4/11/2023	5	10	
5	Architectural Coating	Architectural Coating	4/12/2023	5/2/2023	5	15	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,520 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2192	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.5697	60.5697	1.6200e-003	1.4900e-003	61.0558
Total	**0.0253**	**0.0138**	**0.2192**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.5697**	**60.5697**	**1.6200e-003**	**1.4900e-003**	**61.0558**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2192	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.5697	60.5697	1.6200e-003	1.4900e-003	61.0558
Total	**0.0253**	**0.0138**	**0.2192**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.5697**	**60.5697**	**1.6200e-003**	**1.4900e-003**	**61.0558**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2740	7.5000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		75.7122	75.7122	2.0300e-003	1.8700e-003	76.3197
Total	**0.0316**	**0.0173**	**0.2740**	**7.5000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**75.7122**	**75.7122**	**2.0300e-003**	**1.8700e-003**	**76.3197**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2740	7.5000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		75.7122	75.7122	2.0300e-003	1.8700e-003	76.3197
Total	**0.0316**	**0.0173**	**0.2740**	**7.5000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**75.7122**	**75.7122**	**2.0300e-003**	**1.8700e-003**	**76.3197**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0912	2.4574	0.7559	0.0101	0.3253	0.0236	0.3489	0.0937	0.0226	0.1162		1,062.7634	1,062.7634	4.6300e-003	0.1607	1,110.7651
Worker	0.3567	0.1949	3.0959	8.4600e-003	0.9283	4.6800e-003	0.9330	0.2462	4.3100e-003	0.2505		855.5476	855.5476	0.0229	0.0211	862.4124
Total	**0.4479**	**2.6523**	**3.8517**	**0.0185**	**1.2535**	**0.0283**	**1.2818**	**0.3399**	**0.0269**	**0.3668**		**1,918.3109**	**1,918.3109**	**0.0276**	**0.1818**	**1,973.1776**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0912	2.4574	0.7559	0.0101	0.3253	0.0236	0.3489	0.0937	0.0226	0.1162		1,062.7634	1,062.7634	4.6300e-003	0.1607	1,110.7651
Worker	0.3567	0.1949	3.0959	8.4600e-003	0.9283	4.6800e-003	0.9330	0.2462	4.3100e-003	0.2505		855.5476	855.5476	0.0229	0.0211	862.4124
Total	**0.4479**	**2.6523**	**3.8517**	**0.0185**	**1.2535**	**0.0283**	**1.2818**	**0.3399**	**0.0269**	**0.3668**		**1,918.3109**	**1,918.3109**	**0.0276**	**0.1818**	**1,973.1776**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.1098	0.6915	9.7200e-003	0.3253	0.0133	0.3386	0.0937	0.0127	0.1064		1,026.5894	1,026.5894	3.0100e-003	0.1552	1,072.8997
Worker	0.3314	0.1731	2.8714	8.1900e-003	0.9283	4.4400e-003	0.9327	0.2462	4.0900e-003	0.2503		828.2092	828.2092	0.0208	0.0197	834.5823
Total	**0.3885**	**2.2829**	**3.5630**	**0.0179**	**1.2535**	**0.0177**	**1.2713**	**0.3399**	**0.0168**	**0.3567**		**1,854.7985**	**1,854.7985**	**0.0238**	**0.1748**	**1,907.4821**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.1098	0.6915	9.7200e-003	0.3253	0.0133	0.3386	0.0937	0.0127	0.1064		1,026.5894	1,026.5894	3.0100e-003	0.1552	1,072.8997
Worker	0.3314	0.1731	2.8714	8.1900e-003	0.9283	4.4400e-003	0.9327	0.2462	4.0900e-003	0.2503		828.2092	828.2092	0.0208	0.0197	834.5823
Total	**0.3885**	**2.2829**	**3.5630**	**0.0179**	**1.2535**	**0.0177**	**1.2713**	**0.3399**	**0.0168**	**0.3567**		**1,854.7985**	**1,854.7985**	**0.0238**	**0.1748**	**1,907.4821**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0440	0.0230	0.3812	1.0900e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		109.9393	109.9393	2.7500e-003	2.6100e-003	110.7853
Total	**0.0440**	**0.0230**	**0.3812**	**1.0900e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**109.9393**	**109.9393**	**2.7500e-003**	**2.6100e-003**	**110.7853**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0440	0.0230	0.3812	1.0900e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		109.9393	109.9393	2.7500e-003	2.6100e-003	110.7853
Total	**0.0440**	**0.0230**	**0.3812**	**1.0900e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**109.9393**	**109.9393**	**2.7500e-003**	**2.6100e-003**	**110.7853**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.3597					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**65.5513**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0675	0.0352	0.5845	1.6700e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		168.5736	168.5736	4.2200e-003	4.0000e-003	169.8707
Total	**0.0675**	**0.0352**	**0.5845**	**1.6700e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**168.5736**	**168.5736**	**4.2200e-003**	**4.0000e-003**	**169.8707**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.3597					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**65.5513**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0675	0.0352	0.5845	1.6700e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		168.5736	168.5736	4.2200e-003	4.0000e-003	169.8707
Total	**0.0675**	**0.0352**	**0.5845**	**1.6700e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**168.5736**	**168.5736**	**4.2200e-003**	**4.0000e-003**	**169.8707**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

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	lb/day										lb/day					
Mitigated	10.6605	10.7131	75.1778	0.1484	14.3949	0.1277	14.5225	3.8422	0.1198	3.9620		15,099.9963	15,099.9963	0.9500	0.7871	15,358.2948
Unmitigated	10.6605	10.7131	75.1778	0.1484	14.3949	0.1277	14.5225	3.8422	0.1198	3.9620		15,099.9963	15,099.9963	0.9500	0.7871	15,358.2948

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
NaturalGas Unmitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048

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	lb/day										lb/day					
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
Medical Office Building	4465.75	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4.46575	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

6.0 Area Detail

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Unmitigated	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7500e-003	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Total	**2.4794**	**2.7000e-004**	**0.0298**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0639**	**0.0639**	**1.7000e-004**		**0.0681**

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	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7500e-003	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Total	**2.4794**	**2.7000e-004**	**0.0298**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0639**	**0.0639**	**1.7000e-004**		**0.0681**

7.0 Water Detail

7.1 Mitigation Measures Water

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sutter Parking Garage Expansion & MOB 7

Placer County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.59	100,000.00	0
Enclosed Parking with Elevator	192.00	1000sqft	0.94	192,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage changed based on submitted plans.

Area Mitigation -

Architectural Coating -

Construction Phase - Entire site will be graded and prepped as one phase, but building construction will occur in two phases. Duration of building construction and finishes was extended to account for this.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	PhaseEndDate	4/25/2023	5/2/2023
tblConstructionPhase	PhaseEndDate	3/28/2023	5/9/2023

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	2.30	1.59
tblLandUse	LotAcreage	4.41	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2747	17.4814	17.9534	0.0427	7.1647	0.7427	7.9074	3.4465	0.7001	4.1298	0.0000	4,124.1477	4,124.1477	0.7701	0.1855	4,191.2431
2023	67.6891	24.7466	29.5813	0.0610	1.4425	1.0658	2.4426	0.3900	1.0057	1.3783	0.0000	5,873.8874	5,873.8874	1.0054	0.1830	5,953.0738
Maximum	**67.6891**	**24.7466**	**29.5813**	**0.0610**	**7.1647**	**1.0658**	**7.9074**	**3.4465**	**1.0057**	**4.1298**	**0.0000**	**5,873.8874**	**5,873.8874**	**1.0054**	**0.1855**	**5,953.0738**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2747	17.4814	17.9534	0.0427	7.1647	0.7427	7.9074	3.4465	0.7001	4.1298	0.0000	4,124.1477	4,124.1477	0.7701	0.1855	4,191.2431
2023	67.6891	24.7466	29.5813	0.0610	1.4425	1.0658	2.4426	0.3900	1.0057	1.3783	0.0000	5,873.8874	5,873.8874	1.0054	0.1830	5,953.0738
Maximum	**67.6891**	**24.7466**	**29.5813**	**0.0610**	**7.1647**	**1.0658**	**7.9074**	**3.4465**	**1.0057**	**4.1298**	**0.0000**	**5,873.8874**	**5,873.8874**	**1.0054**	**0.1855**	**5,953.0738**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

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	lb/day										lb/day					
Area	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	8.6021	12.3226	80.5858	0.1380	14.3949	0.1278	14.5227	3.8422	0.1199	3.9621		14,052.8125	14,052.8125	1.1285	0.8600	14,337.2895
Total	**11.1297**	**12.7607**	**80.9833**	**0.1407**	**14.3949**	**0.1611**	**14.5560**	**3.8422**	**0.1533**	**3.9955**		**14,578.2591**	**14,578.2591**	**1.1387**	**0.8696**	**14,865.8624**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	8.6021	12.3226	80.5858	0.1380	14.3949	0.1278	14.5227	3.8422	0.1199	3.9621		14,052.8125	14,052.8125	1.1285	0.8600	14,337.2895
Total	**11.1297**	**12.7607**	**80.9833**	**0.1407**	**14.3949**	**0.1611**	**14.5560**	**3.8422**	**0.1533**	**3.9955**		**14,578.2591**	**14,578.2591**	**1.1387**	**0.8696**	**14,865.8624**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/12/2022	5/16/2022	5	3	
2	Grading	Grading	5/17/2022	5/24/2022	5	6	
3	Building Construction	Building Construction	5/25/2022	5/9/2023	5	250	
4	Paving	Paving	3/29/2023	4/11/2023	5	10	
5	Architectural Coating	Architectural Coating	4/12/2023	5/2/2023	5	15	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,520 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1992	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.5749	54.5749	1.9000e-003	1.7300e-003	55.1384
Total	**0.0235**	**0.0172**	**0.1992**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.5749**	**54.5749**	**1.9000e-003**	**1.7300e-003**	**55.1384**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1992	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.5749	54.5749	1.9000e-003	1.7300e-003	55.1384
Total	**0.0235**	**0.0172**	**0.1992**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.5749**	**54.5749**	**1.9000e-003**	**1.7300e-003**	**55.1384**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2490	6.7000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.2186	68.2186	2.3800e-003	2.1600e-003	68.9230
Total	**0.0293**	**0.0215**	**0.2490**	**6.7000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**68.2186**	**68.2186**	**2.3800e-003**	**2.1600e-003**	**68.9230**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2490	6.7000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.2186	68.2186	2.3800e-003	2.1600e-003	68.9230
Total	**0.0293**	**0.0215**	**0.2490**	**6.7000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**68.2186**	**68.2186**	**2.3800e-003**	**2.1600e-003**	**68.9230**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0878	2.6341	0.7860	0.0101	0.3253	0.0237	0.3490	0.0937	0.0227	0.1163		1,063.9961	1,063.9961	4.4800e-003	0.1610	1,112.0899
Worker	0.3314	0.2433	2.8142	7.6300e-003	0.9283	4.6800e-003	0.9330	0.2462	4.3100e-003	0.2505		770.8703	770.8703	0.0269	0.0245	778.8302
Total	**0.4192**	**2.8774**	**3.6001**	**0.0177**	**1.2535**	**0.0284**	**1.2819**	**0.3399**	**0.0270**	**0.3668**		**1,834.8664**	**1,834.8664**	**0.0313**	**0.1855**	**1,890.9201**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0878	2.6341	0.7860	0.0101	0.3253	0.0237	0.3490	0.0937	0.0227	0.1163		1,063.9961	1,063.9961	4.4800e-003	0.1610	1,112.0899
Worker	0.3314	0.2433	2.8142	7.6300e-003	0.9283	4.6800e-003	0.9330	0.2462	4.3100e-003	0.2505		770.8703	770.8703	0.0269	0.0245	778.8302
Total	**0.4192**	**2.8774**	**3.6001**	**0.0177**	**1.2535**	**0.0284**	**1.2819**	**0.3399**	**0.0270**	**0.3668**		**1,834.8664**	**1,834.8664**	**0.0313**	**0.1855**	**1,890.9201**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0531	2.2683	0.7168	9.7400e-003	0.3253	0.0134	0.3386	0.0937	0.0128	0.1064		1,028.8526	1,028.8526	2.8200e-003	0.1556	1,075.2982
Worker	0.3083	0.2160	2.6185	7.3800e-003	0.9283	4.4400e-003	0.9327	0.2462	4.0900e-003	0.2503		746.4347	746.4347	0.0244	0.0227	753.8216
Total	**0.3614**	**2.4842**	**3.3352**	**0.0171**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0169**	**0.3567**		**1,775.2873**	**1,775.2873**	**0.0272**	**0.1784**	**1,829.1198**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0531	2.2683	0.7168	9.7400e-003	0.3253	0.0134	0.3386	0.0937	0.0128	0.1064		1,028.8526	1,028.8526	2.8200e-003	0.1556	1,075.2982
Worker	0.3083	0.2160	2.6185	7.3800e-003	0.9283	4.4400e-003	0.9327	0.2462	4.0900e-003	0.2503		746.4347	746.4347	0.0244	0.0227	753.8216
Total	**0.3614**	**2.4842**	**3.3352**	**0.0171**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0169**	**0.3567**		**1,775.2873**	**1,775.2873**	**0.0272**	**0.1784**	**1,829.1198**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0409	0.0287	0.3476	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		99.0843	99.0843	3.2400e-003	3.0200e-003	100.0648
Total	**0.0409**	**0.0287**	**0.3476**	**9.8000e-004**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**99.0843**	**99.0843**	**3.2400e-003**	**3.0200e-003**	**100.0648**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0409	0.0287	0.3476	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		99.0843	99.0843	3.2400e-003	3.0200e-003	100.0648
Total	**0.0409**	**0.0287**	**0.3476**	**9.8000e-004**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**99.0843**	**99.0843**	**3.2400e-003**	**3.0200e-003**	**100.0648**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.3597					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**65.5513**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0440	0.5330	1.5000e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		151.9292	151.9292	4.9700e-003	4.6300e-003	153.4327
Total	**0.0628**	**0.0440**	**0.5330**	**1.5000e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**151.9292**	**151.9292**	**4.9700e-003**	**4.6300e-003**	**153.4327**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.3597					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**65.5513**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0440	0.5330	1.5000e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		151.9292	151.9292	4.9700e-003	4.6300e-003	153.4327
Total	**0.0628**	**0.0440**	**0.5330**	**1.5000e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**151.9292**	**151.9292**	**4.9700e-003**	**4.6300e-003**	**153.4327**

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	lb/day										lb/day					
Mitigated	8.6021	12.3226	80.5858	0.1380	14.3949	0.1278	14.5227	3.8422	0.1199	3.9621		14,052.8125	14,052.8125	1.1285	0.8600	14,337.2895
Unmitigated	8.6021	12.3226	80.5858	0.1380	14.3949	0.1278	14.5227	3.8422	0.1199	3.9621		14,052.8125	14,052.8125	1.1285	0.8600	14,337.2895

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
NaturalGas Unmitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048

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	lb/day										lb/day					
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
Medical Office Building	4465.75	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4.46575	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

6.0 Area Detail

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Unmitigated	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7500e-003	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Total	**2.4794**	**2.7000e-004**	**0.0298**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0639**	**0.0639**	**1.7000e-004**		**0.0681**

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	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7500e-003	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Total	**2.4794**	**2.7000e-004**	**0.0298**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0639**	**0.0639**	**1.7000e-004**		**0.0681**

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sutter Parking Garage Expansion & MOB 7

Placer County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.59	100,000.00	0
Enclosed Parking with Elevator	192.00	1000sqft	0.94	192,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage changed based on submitted plans.

Area Mitigation -

Architectural Coating -

Construction Phase - Entire site will be graded and prepped as one phase, but building construction will occur in two phases. Duration of building construction and finishes was extended to account for this.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	PhaseEndDate	4/25/2023	5/2/2023
tblConstructionPhase	PhaseEndDate	3/28/2023	5/9/2023

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	2.30	1.59
tblLandUse	LotAcreage	4.41	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, 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					
2022	0.1853	1.4496	1.4565	3.4900e-003	0.1188	0.0608	0.1797	0.0365	0.0582	0.0946	0.0000	305.6644	305.6644	0.0366	0.0132	310.5043
2023	0.5915	0.7909	0.8818	2.0700e-003	0.0572	0.0318	0.0889	0.0156	0.0304	0.0459	0.0000	181.4449	181.4449	0.0218	7.4100e-003	184.1976
Maximum	**0.5915**	**1.4496**	**1.4565**	**3.4900e-003**	**0.1188**	**0.0608**	**0.1797**	**0.0365**	**0.0582**	**0.0946**	**0.0000**	**305.6644**	**305.6644**	**0.0366**	**0.0132**	**310.5043**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1853	1.4496	1.4565	3.4900e-003	0.1188	0.0608	0.1797	0.0365	0.0582	0.0946	0.0000	305.6642	305.6642	0.0366	0.0132	310.5041
2023	0.5915	0.7909	0.8818	2.0700e-003	0.0572	0.0318	0.0889	0.0156	0.0304	0.0459	0.0000	181.4448	181.4448	0.0218	7.4100e-003	184.1975
Maximum	**0.5915**	**1.4496**	**1.4565**	**3.4900e-003**	**0.1188**	**0.0608**	**0.1797**	**0.0365**	**0.0582**	**0.0946**	**0.0000**	**305.6642**	**305.6642**	**0.0366**	**0.0132**	**310.5041**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, 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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	**5-12-2022**	**8-11-2022**	0.6354	0.6354
2	**8-12-2022**	**11-11-2022**	0.6456	0.6456
3	**11-12-2022**	**2-11-2023**	0.6255	0.6255
4	**2-12-2023**	**5-11-2023**	1.1125	1.1125
		Highest	1.1125	1.1125

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	0.4522	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	517.3997	517.3997	0.0318	5.2400e-003	519.7560
Mobile	1.2140	1.6050	10.2859	0.0192	1.8926	0.0175	1.9101	0.5070	0.0165	0.5235	0.0000	1,775.6826	1,775.6826	0.1297	0.1030	1,809.6041
Waste						0.0000	0.0000		0.0000	0.0000	219.2302	0.0000	219.2302	12.9561	0.0000	543.1336
Water						0.0000	0.0000		0.0000	0.0000	3.9809	16.3269	20.3078	0.4100	9.7900e-003	33.4766
Total	**1.6750**	**1.6850**	**10.3557**	**0.0197**	**1.8926**	**0.0236**	**1.9162**	**0.5070**	**0.0225**	**0.5296**	**223.2112**	**2,309.4143**	**2,532.6255**	**13.5277**	**0.1180**	**2,905.9758**

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	0.4522	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	517.3997	517.3997	0.0318	5.2400e-003	519.7560
Mobile	1.2140	1.6050	10.2859	0.0192	1.8926	0.0175	1.9101	0.5070	0.0165	0.5235	0.0000	1,775.6826	1,775.6826	0.1297	0.1030	1,809.6041
Waste						0.0000	0.0000		0.0000	0.0000	219.2302	0.0000	219.2302	12.9561	0.0000	543.1336
Water						0.0000	0.0000		0.0000	0.0000	3.9809	16.3269	20.3078	0.4100	9.7900e-003	33.4766
Total	**1.6750**	**1.6850**	**10.3557**	**0.0197**	**1.8926**	**0.0236**	**1.9162**	**0.5070**	**0.0225**	**0.5296**	**223.2112**	**2,309.4143**	**2,532.6255**	**13.5277**	**0.1180**	**2,905.9758**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/12/2022	5/16/2022	5	3	
2	Grading	Grading	5/17/2022	5/24/2022	5	6	
3	Building Construction	Building Construction	5/25/2022	5/9/2023	5	250	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	3/29/2023	4/11/2023	5	10	
5	Architectural Coating	Architectural Coating	4/12/2023	5/2/2023	5	15	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,520 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0759	0.0759	0.0000	0.0000	0.0766
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0759**	**0.0759**	**0.0000**	**0.0000**	**0.0766**

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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0759	0.0759	0.0000	0.0000	0.0766
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0759**	**0.0759**	**0.0000**	**0.0000**	**0.0766**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	7.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1898	0.1898	1.0000e-005	1.0000e-005	0.1916
Total	**8.0000e-005**	**6.0000e-005**	**7.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1898**	**0.1898**	**1.0000e-005**	**1.0000e-005**	**0.1916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	7.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1898	0.1898	1.0000e-005	1.0000e-005	0.1916
Total	**8.0000e-005**	**6.0000e-005**	**7.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1898**	**0.1898**	**1.0000e-005**	**1.0000e-005**	**0.1916**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1466	1.1537	1.1339	1.9800e-003		0.0555	0.0555		0.0532	0.0532	0.0000	164.0673	164.0673	0.0317	0.0000	164.8586
Total	**0.1466**	**1.1537**	**1.1339**	**1.9800e-003**		**0.0555**	**0.0555**		**0.0532**	**0.0532**	**0.0000**	**164.0673**	**164.0673**	**0.0317**	**0.0000**	**164.8586**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0700e-003	0.2039	0.0608	8.0000e-004	0.0248	1.8700e-003	0.0266	7.1700e-003	1.7900e-003	8.9600e-003	0.0000	76.2027	76.2027	3.3000e-004	0.0115	79.6462
Worker	0.0248	0.0174	0.2180	6.2000e-004	0.0701	3.7000e-004	0.0705	0.0187	3.4000e-004	0.0190	0.0000	56.4659	56.4659	1.7800e-003	1.6400e-003	56.9984
Total	**0.0319**	**0.2214**	**0.2788**	**1.4200e-003**	**0.0949**	**2.2400e-003**	**0.0971**	**0.0258**	**2.1300e-003**	**0.0280**	**0.0000**	**132.6686**	**132.6686**	**2.1100e-003**	**0.0132**	**136.6446**

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	0.1466	1.1537	1.1339	1.9800e-003		0.0555	0.0555		0.0532	0.0532	0.0000	164.0671	164.0671	0.0317	0.0000	164.8584
Total	**0.1466**	**1.1537**	**1.1339**	**1.9800e-003**		**0.0555**	**0.0555**		**0.0532**	**0.0532**	**0.0000**	**164.0671**	**164.0671**	**0.0317**	**0.0000**	**164.8584**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0700e-003	0.2039	0.0608	8.0000e-004	0.0248	1.8700e-003	0.0266	7.1700e-003	1.7900e-003	8.9600e-003	0.0000	76.2027	76.2027	3.3000e-004	0.0115	79.6462
Worker	0.0248	0.0174	0.2180	6.2000e-004	0.0701	3.7000e-004	0.0705	0.0187	3.4000e-004	0.0190	0.0000	56.4659	56.4659	1.7800e-003	1.6400e-003	56.9984
Total	**0.0319**	**0.2214**	**0.2788**	**1.4200e-003**	**0.0949**	**2.2400e-003**	**0.0971**	**0.0258**	**2.1300e-003**	**0.0280**	**0.0000**	**132.6686**	**132.6686**	**2.1100e-003**	**0.0132**	**136.6446**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0788	0.6267	0.6539	1.1500e-003		0.0282	0.0282		0.0271	0.0271	0.0000	95.5430	95.5430	0.0181	0.0000	95.9947
Total	**0.0788**	**0.6267**	**0.6539**	**1.1500e-003**		**0.0282**	**0.0282**		**0.0271**	**0.0271**	**0.0000**	**95.5430**	**95.5430**	**0.0181**	**0.0000**	**95.9947**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5400e-003	0.1020	0.0323	4.5000e-004	0.0144	6.1000e-004	0.0150	4.1800e-003	5.9000e-004	4.7600e-003	0.0000	42.8797	42.8797	1.2000e-004	6.4800e-003	44.8149
Worker	0.0134	8.9900e-003	0.1179	3.5000e-004	0.0408	2.0000e-004	0.0410	0.0109	1.9000e-004	0.0111	0.0000	31.8351	31.8351	9.4000e-004	8.9000e-004	32.1228
Total	**0.0160**	**0.1110**	**0.1503**	**8.0000e-004**	**0.0552**	**8.1000e-004**	**0.0561**	**0.0150**	**7.8000e-004**	**0.0158**	**0.0000**	**74.7148**	**74.7148**	**1.0600e-003**	**7.3700e-003**	**76.9378**

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	0.0788	0.6267	0.6539	1.1500e-003		0.0282	0.0282		0.0271	0.0271	0.0000	95.5428	95.5428	0.0181	0.0000	95.9946
Total	**0.0788**	**0.6267**	**0.6539**	**1.1500e-003**		**0.0282**	**0.0282**		**0.0271**	**0.0271**	**0.0000**	**95.5428**	**95.5428**	**0.0181**	**0.0000**	**95.9946**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5400e-003	0.1020	0.0323	4.5000e-004	0.0144	6.1000e-004	0.0150	4.1800e-003	5.9000e-004	4.7600e-003	0.0000	42.8797	42.8797	1.2000e-004	6.4800e-003	44.8149
Worker	0.0134	8.9900e-003	0.1179	3.5000e-004	0.0408	2.0000e-004	0.0410	0.0109	1.9000e-004	0.0111	0.0000	31.8351	31.8351	9.4000e-004	8.9000e-004	32.1228
Total	**0.0160**	**0.1110**	**0.1503**	**8.0000e-004**	**0.0552**	**8.1000e-004**	**0.0561**	**0.0150**	**7.8000e-004**	**0.0158**	**0.0000**	**74.7148**	**74.7148**	**1.0600e-003**	**7.3700e-003**	**76.9378**

3.5 Paving - 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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8179**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.9000e-004	1.3000e-004	1.7000e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4593	0.4593	1.0000e-005	1.0000e-005	0.4635
Total	**1.9000e-004**	**1.3000e-004**	**1.7000e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4593**	**0.4593**	**1.0000e-005**	**1.0000e-005**	**0.4635**

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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8178**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.9000e-004	1.3000e-004	1.7000e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4593	0.4593	1.0000e-005	1.0000e-005	0.4635
Total	**1.9000e-004**	**1.3000e-004**	**1.7000e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4593**	**0.4593**	**1.0000e-005**	**1.0000e-005**	**0.4635**

3.6 Architectural Coating - 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					
Archit. Coating	0.4902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4400e-003	9.7700e-003	0.0136	2.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	1.9149	1.9149	1.1000e-004	0.0000	1.9178
Total	**0.4916**	**9.7700e-003**	**0.0136**	**2.0000e-005**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.1000e-004**	**0.0000**	**1.9178**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.9100e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.0565	1.0565	3.0000e-005	3.0000e-005	1.0660
Total	**4.5000e-004**	**3.0000e-004**	**3.9100e-003**	**1.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.0565**	**1.0565**	**3.0000e-005**	**3.0000e-005**	**1.0660**

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	0.4902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4400e-003	9.7700e-003	0.0136	2.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	1.9149	1.9149	1.1000e-004	0.0000	1.9178
Total	**0.4916**	**9.7700e-003**	**0.0136**	**2.0000e-005**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.1000e-004**	**0.0000**	**1.9178**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.9100e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.0565	1.0565	3.0000e-005	3.0000e-005	1.0660
Total	**4.5000e-004**	**3.0000e-004**	**3.9100e-003**	**1.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.0565**	**1.0565**	**3.0000e-005**	**3.0000e-005**	**1.0660**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.2140	1.6050	10.2859	0.0192	1.8926	0.0175	1.9101	0.5070	0.0165	0.5235	0.0000	1,775.6826	1,775.6826	0.1297	0.1030	1,809.6041
Unmitigated	1.2140	1.6050	10.2859	0.0192	1.8926	0.0175	1.9101	0.5070	0.0165	0.5235	0.0000	1,775.6826	1,775.6826	0.1297	0.1030	1,809.6041

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	430.4167	430.4167	0.0301	3.6500e-003	432.2561
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	430.4167	430.4167	0.0301	3.6500e-003	432.2561
NaturalGas Mitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
NaturalGas Unmitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, 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					
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
Medical Office Building	1.63e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
Total		**8.7900e-003**	**0.0799**	**0.0671**	**4.8000e-004**		**6.0700e-003**	**6.0700e-003**		**6.0700e-003**	**6.0700e-003**	**0.0000**	**86.9830**	**86.9830**	**1.6700e-003**	**1.5900e-003**	**87.4999**

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					
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
Medical Office Building	1.63e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
Total		**8.7900e-003**	**0.0799**	**0.0671**	**4.8000e-004**		**6.0700e-003**	**6.0700e-003**		**6.0700e-003**	**6.0700e-003**	**0.0000**	**86.9830**	**86.9830**	**1.6700e-003**	**1.5900e-003**	**87.4999**

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			
Enclosed Parking with Elevator	1.04448e+006	223.6091	0.0156	1.9000e-003	224.5647
Medical Office Building	966000	206.8076	0.0145	1.7500e-003	207.6914
Total		**430.4167**	**0.0301**	**3.6500e-003**	**432.2561**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.04448e+006	223.6091	0.0156	1.9000e-003	224.5647
Medical Office Building	966000	206.8076	0.0145	1.7500e-003	207.6914
Total		**430.4167**	**0.0301**	**3.6500e-003**	**432.2561**

6.0 Area Detail

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive 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	0.4522	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Unmitigated	0.4522	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Total	**0.4522**	**2.0000e-005**	**2.6800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.2200e-003**	**5.2200e-003**	**1.0000e-005**	**0.0000**	**5.5600e-003**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

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	0.0490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Total	**0.4522**	**2.0000e-005**	**2.6800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.2200e-003**	**5.2200e-003**	**1.0000e-005**	**0.0000**	**5.5600e-003**

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	20.3078	0.4100	9.7900e-003	33.4766
Unmitigated	20.3078	0.4100	9.7900e-003	33.4766

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	12.5481 / 2.39011	20.3078	0.4100	9.7900e-003	33.4766
Total		**20.3078**	**0.4100**	**9.7900e-003**	**33.4766**

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			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	12.5481 / 2.39011	20.3078	0.4100	9.7900e-003	33.4766
Total		**20.3078**	**0.4100**	**9.7900e-003**	**33.4766**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	219.2302	12.9561	0.0000	543.1336
Unmitigated	219.2302	12.9561	0.0000	543.1336

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

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Total		**219.2302**	**12.9561**	**0.0000**	**543.1336**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Total		**219.2302**	**12.9561**	**0.0000**	**543.1336**

9.0 Operational Offroad

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

LOZEAU DRURY LLP
T 510.836.4200
F 510.836.4205
1939 Harrison Street, Ste. 150
Oakland, CA 94612
www.lozeaudrury.com
brian@lozeaudrury.com

VIA EMAIL ONLY

May 11, 2022

Robert Jense, Chair
Jonathan Martin, Vice Chair
Erich Brashears
Justin Caporusso
Tracy Covington
Clifford Haggenjos, Jr.
John Prior
Planning Commission
City of Roseville
311 Vernon Street
Roseville, CA 95678
planningdivision@roseville.ca.us

Escarlet Mar, Associate Planner
Planning Division
City of Roseville
311 Vernon Street
Roseville, CA 95678
emar@roseville.ca.us

Re: Sutter Parking Garage Expansion and Medical Office Building 7
Negative Declaration (File Nos. PL22-0024, PL22-0061)
Planning Commission Agenda Item 6.2 (May 12, 2022)

Dear Chair Jense, Vice Chair Martin, Honorable Planning Commissioners, and Ms. Mar,

I am writing on behalf of the Laborers International Union of North America, Local Union 185 and its members ("LIUNA") living in and around the City of Roseville ("City") regarding the Negative Declaration ("ND") prepared for the Sutter Parking Garage Expansion and Medical Office Building 7 Project ("Project") (File Nos. PL22-0024, PL22-0061) to be heard as Agenda Item 6.2 at the Planning Commission's May 12, 2022 meeting.

LIUNA's review of the ND was assisted by indoor air quality expert Francis Offermann, PE, CIH, noise expert Deborah Jue of Wildon Ihrig, and air quality experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., of the Soil/Water/Air Protection Enterprise ("SWAPE"). The written comments of Mr. Offermann, Ms. Jue, and SWAPE are attached hereto as Exhibit A, Exhibit B and Exhibit C, respectively. Based on their review, it appears that several of the MND's conclusions are not supported by substantial evidence and, moreover, there is a "fair argument" that the Project may have unmitigated adverse environmental impacts. As required by CEQA, LIUNA requests that the City prepare an environmental impact report ("EIR") rather than a ND prior to approving the Project.

PROJECT DESCRIPTION

The Project consists of two components: (1) the expansion of an existing five-story parking garage with a six-story parking addition ("Garage Expansion") and (2) a new medical office building ("MOB"). Both components are located within the existing 49-acre Sutter Roseville Medical Center campus, specifically on the northeastern area of the campus. The Garage Expansion is proposed to be located immediately to the east of the existing five-story parking garage and be connected to the future parking garage at each level. The MOB would be located along the east edge of the campus, north of the existing five-story parking garage and east of the existing MOB4.

The Garage Expansion site is approximately 0.94 acres in size and contains an existing surface parking lot with lighting and landscaping. The MOB site is approximately 1.64 acres in size and is developed with surface parking, lighting, and landscaping. The MOB site is surrounded by an existing private dental clinic to the south and an apartment complex to the east. The MOB is proposed to be constructed in two-phases: Phase 1 would consists of the four-story building and Phase 2 would consist of a two-story addition on the front of the building.

LEGAL STANDARD FOR NEGATIVE DECLARATIONS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist*. (2010) 48 Cal.4th 310, 319-20.) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Res. Code ["PRC"] § 21068; see also 14 CCR § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." *(No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109.)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214 (*Bakersfield Citizens*); *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (PRC § 21080(d); see also *Pocket Protectors*, *supra*, 124 Cal.App.4th at 927.) In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration unless there is a "fair argument" that the project will have a significant environmental effect. (PRC, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.) A mitigated negative declaration is proper only if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and . . . there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (*Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331 [quoting PRC §§ 21064.5, 21080(c)(2)].) In that context, "may" means a reasonable possibility of a significant effect on the environment. (PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors*, *supra*, 124 Cal.App.4th at 927*; League for Protection of Oakland's etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-05.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors*, *supra*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protector*s, *supra*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zishcke, Practice Under CEQA, §6.29, pp. 273-74.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference

to the lead agency's determination. Review is de novo, with a preference for resolving doubts in favor of environmental review." *(Pocket Protectors*, *supra*, 124 Cal.App.4th at 928.)

DISCUSSION

I. The proposed Conditions of Approval contain environmental mitigation measures that are not discussed or incorporated in the ND's analysis of the Project.

According to Staff's proposed Conditions of Approval, "The project shall comply with all required environmental mitigation identified in Sutter Roseville MOB 6 and Parking Garage Mitigated Negative Declaration." (Staff Report, p. 8.) However, there is no mention of the Sutter Roseville MOB 6 and Parking Garage Mitigated Negative Declaration ("MOB 6 MND") or its mitigation measures in the ND. The ND lists three "environmental documents relied upon" for its analysis of the Project: (1) 2035 General Plan Update Final Environmental Impact Report; (2) Northeast Roseville Specific Plan Environmental Impact Report; and (3) Sutter Roseville Medical Center Master Plan Environmental Impact Report. The ND makes no mention of mitigation measures from those environmental documents or any other environmental document, including the MOB 6 MND.

Rather than discuss mitigation measures that may be applied to the Project from other EIRs and MNDs, the ND simply concluded that every single environmental impact of the Project would be less than significant without mitigation. (See, e.g., Initial Study, pp. 13 [Air Quality], 20 [Energy], 24 [Greenhouse gases], 26 [Hazards], 33 [Noise].) If the Project requires mitigation measures from the MOB 6 MND to ensure less-than-significant impacts, then those mitigation measures must be discussed and incorporated into the ND. Because the ND does not mention the MOB 6 MND at all, the ND's conclusions are not supported by substantial evidence and it should be revised prior to further consideration of the Project.

II. An EIR is required to disclose and the Project's significant indoor air quality impacts from emissions of formaldehyde.

The ND fails to address the significant health risks posed by the Project from formaldehyde, a toxic air contaminant ("TAC"). Certified Industrial Hygienist, Francis Offermann, PE, CIH, has conducted a review of the Project, the ND, and relevant documents regarding the Project's indoor air emissions. Mr. Offermann is one of the world's leading experts on indoor air quality, in particular emissions of formaldehyde, and has published extensively on the topic. As discussed below and set forth in Mr. Offermann's comments, the Project's emissions of formaldehyde to air in the MOB will result in very significant cancer risks to future employees. Mr. Offermann's expert opinion and calculation present a "fair argument" that the Project may have significant health risk impacts as a result of these indoor air pollution emissions, which were not discussed, disclosed, or analyzed in the ND. These impacts must be addressed in an EIR. Mr. Offermann's comment and CV are attached as Exhibit A.

Formaldehyde is a known human carcinogen and listed by the State as a TAC. The Placer County Air Pollution Control District ("PCAPCD") has established a significance threshold of health risks for carcinogenic TACs of 10 in a million. (Ex. A, p. 2.) The ND fails to acknowledge the significant indoor air emissions that will result from the Project. Specifically, there is no discussion of impacts or health risks, no analysis, and no identification of mitigations for significant emissions of formaldehyde to air from the Project.

Mr. Offermann explains that many composite wood products typically used building construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential, office, and retail building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. A, pp. 2-3.)

Mr. Offermann states that future employees of the MOB will be exposed to a cancer risk from formaldehyde of approximately 17.7 per million, even assuming that all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (Ex. A, p. 4.) This exceeds PCAPCD's CEQA significance thresholds for airborne cancer risk of 10 per million. (*Id*.) Mr. Offermann concludes that these significant environmental impacts must be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (*Id*. at pp. 4, 11-12.) He prescribes a methodology for estimating the Project's formaldehyde emissions in order to do a more project-specific health risk assessment. (*Id*. at pp. 5-9.). Mr. Offermann also suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. (*Id*. at pp. 11-12.) Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. (*Id*. at p. 12.) Since the ND does not analyze this impact at all, none of these or other mitigation measures have been considered.

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes substantial evidence that the project will have a significant adverse environmental impact. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. (See, e.g. *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 [County applies Air District's "published CEQA quantitative criteria" and "threshold level of cumulative significance"]; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 ["A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"].) The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 ["As the District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day] constitute substantial evidence supporting a fair argument for a significant adverse impact."].) Since expert evidence

demonstrates that the Project will exceed the PCAPCD's CEQA significance threshold, there is substantial evidence that an "unstudied, potentially significant environmental effect[]" exists. (See *Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist*. (2016) 1 Cal.5th 937, 958 [emphasis added].) As a result, the City must prepare an EIR for the Project to address this impact and identify enforceable mitigation measures.

The failure of the ND to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist*. (2015) 62 Cal.4th 369, 386 (*CBIA*). In that case, the Supreme Court expressly holds that potential adverse impacts to future users and residents from pollution generated by a proposed project must be addressed under CEQA. At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (*CBIA*, *supra*, 62 Cal.4th at 800-01.) However, to the extent a project may exacerbate existing environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id*. at 801.) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on a project's users or residents that arise from the project's effects on the environment." (*Id*. at 800.)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. People will be working inside the MOB once it is built and begins emitting formaldehyde. Once built, the MOB will begin to emit formaldehyde at levels that pose significant direct and cumulative health risks. The Supreme Court in *CBIA* expressly finds that this type of air emission and health impact by the project on the environment and a "project's users and residents" must be addressed in the CEQA process. The existing TAC sources near the Project site would have to be considered in evaluating the cumulative effect on future residents of both the Project's TAC emissions as well as those existing off-site emissions.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.'" (*CBIA*, *supra*, 62 Cal.4th at 800 [emphasis in original].) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (*Id*., citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the thousands of future residents at the Project are human beings and the health and safety of those residents must be subjected to CEQA's safeguards.

The City has a duty to investigate issues relating to a project's potential environmental impacts. (See *County Sanitation Dist. No. 2 v. County of Kern*, (2005) 127 Cal.App.4th 1544,

1597–98. ["[U]nder CEQA, the lead agency bears a burden to investigate potential environmental impacts."].) The proposed office buildings will have significant impacts on air quality and health risks by emitting cancer-causing levels of formaldehyde into the air that will expose future residents to cancer risks potentially in excess of PCAPCD's threshold of significance for cancer health risks of 10 in a million. Currently, outside of Mr. Offermann's comments, the City does not have any idea what risks will be posed by formaldehyde emissions from the Project or the residences. As a result, the City must include an analysis and discussion in an EIR which discloses and analyzes the health risks that the Project's formaldehyde emissions may have on future residents and identifies appropriate mitigation measures.

III. The ND inadequately analyzes and mitigates the Project's noise impacts.

Noise expert Deborah Jue of the consulting firm Wilson Ihrig reviewed the MND's analysis of the Project's noise impacts. Ms. Jue's comment letter is attached as Exhibit B. As discussed below, Ms. Jue concluded that the MND failed to properly analyze and mitigate the Project's noise impacts and, as a result, the Project may cause significant impacts.

A. The ND fails to provide any context or analysis from the Sutter Roseville Medical Center Master Plan EIR.

Although the ND claims to incorporate prior environmental documents, including the Sutter Roseville Medical Center Master Plan EIR (Initial Study, pp. 7-8), there is no discussion of the information potentially used from the prior EIRs to evaluate the Project's impacts, such as significance thresholds, impacts, and mitigation measures. (Ex. B, p. 1.) Furthermore, the prior EIRs are not all available from CEQANet or the City's website. (Id.) Without making the prior documentation available or discussing how the information contained in those EIRs applies to this Project, the ND lacks the context and analysis necessary to determine that the Project's impacts would be less than significant.

B. The ND fails to properly establish thresholds of significance for the Project's noise impacts.

The ND failed to establish and apply proper significance thresholds for the Project's noise impacts. (Ex. B, pp. 1-2.) Although the ND claims that the City's CEQA Implementing Procedures determined that compliance with the City's Noise Ordinance would be sufficient to to find that the Project's noise impacts would be less than significant, Ms. Jue notes that the City's CEQA Implementing Procedures "include[] no discussion about CEQA thresholds to use in CEQA analysis." (Ex. B, p. 2.) As such, "there is no evidence to substantiate that the noise ordinance is sufficient to determine potential significance." (Id.)

Ms. Jue suggests a number of possible significance thresholds that the City could apply to this Project's noise impacts. (Ex. B, pp. 2-3.) These thresholds include sleep disturbance (Ex. B, pp. 2-3), speech disturbance (Ex. B, p. 3), noise and vibration thresholds for construction (Ex. B, p. 3), and actual compliance with the Noise Ordinance (Ex. B, p. 3). Because the ND did not

provide any quantitative analysis of the Project's noise impacts, there is no evidence that the Project's noise levels will not exceed these thresholds or any other thresholds the City may adopt.

C. The ND's analysis of the Project's noise impacts is incomplete.

Ms. Jue notes that the ND provided incomplete analyses of the noise impacts from mechanical equipment on the roof of the MOB and from construction noise. (Ex. B, p. 3-4.)

For the mechanical equipment, "[t]he ND provides no evidence that the rooftop equipment for the MOB would comply with the Municipal code, and provides no evidence that the addition of such equipment would be less than significant at the nearest residential structure, which is only 120 ft away.) (Ex. B, p. 3.) The ND's failure to provide any substantive information about the mechanical equipment obscures a potentially significant impact. If two commercial-use air handling cooling systems are in operation, "the resulting noise level at the nearest residence would be 49 to 65 dBA, exceeding the City's daytime and nighttime noise limits. (Id.) In addition to the potentially significant impact from cooling systems, the ND also fails to discuss emergency/backup generators, which would only add to the Project's significant noise levels. (Id.) By failing to fully analyze these impacts, the ND omits potentially significant impacts and fails to provide substantial evidence that the Project's noise impacts will be less than significant without mitigation.

D. An EIR is required due to a fair argument that the Project's construction noise may result in a significant impact.

Ms. Jue calculated sample noise levels for five pieces of construction equipment: hoe ram, excavator/dozer, crane, front end loader, and pneumatic tools. (Ex. B, Table 1, p. 4.) According to her calculations of noise levels during demolition and site preparation, "noise from a hoe ram, excavator, or dozer could generate noise as high as 72 to 86 dBA Lmax at the nearest residence, with on-going noise over several hours each day ranging from 68 to 79 dBA Leq." (Ex. B, p. 4.) For construction, "the noise from a crane, front end loader or pneumatic tools would range from 67 to 77 dBA Lmax, with on-going noise levels of 63 to 74 dBA Leq. (Id.) Her calculations assumed that the equipment was not being used at the same time. If equipment use of different types overlapped, the noise impact would be even greater. According to Ms. Jue, these exterior noise levels would all cause speech interference at interior locations based on guidance from the World Health Organization. Due to Ms. Jue's a fair argument that the Project may result in significant noise impacts, the ND is inappropriate and an EIR must be prepared.

E. The ND fails to adequately mitigate the Project's noise impacts.

As noted above, the Project's mechanical equipment and construction noise/vibrations could result in significant impacts to the nearby residences and offices. Ms. Jue suggests several mitigation measures to address these impacts, including (1) selection, siting and/or screening of the mechanical equipment, (2) sound barrier or blankets for construction noise, and (3) buffer

distances for noisy activities and stationary equipment. (Ex. B, p. 4.) The City should revise the ND to fully analyze the Project's noise impacts and apply the abov mitigation measures (or others) as appropriate.

IV. An EIR is Required to Disclose and Mitigate the Project's Significant Air Quality Impacts from Emissions of ROGs.

A. The MND's analysis of the Project's air quality impacts is not supported by substantial evidence.

SWAPE found that the ND underestimated the Project's emissions and therefore cannot be relied upon to determine the significant of the Project's air quality impacts. (Ex. C, pp. 2-3.) The MND relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod"). (*Id*. at p. 2.) This model, which is used to generate a project's construction and operational emissions, relies on recommended default values based on site specific information related to a number of factors (*Id*.) CEQA requires that any changes to the default values must be justified by substantial evidence.

SWAPE reviewed the Project's CalEEMod output files and found that the values input into the model were inconsistent with information provided in the ND. (Ex. C, p. 2.) This results in an underestimation of the Project's emissions. (*Id*.) As a result, an EIR should be prepared that adequately evaluates the Project's air quality impacts. (*Id*. at pp. 2-3.)

Specifically, SWAPE found that the following values used in the MND's air quality analysis were either inconsistent with information provided in the MND or otherwise unjustified:

1. Underestimated Land Use Size (Ex. C, p. 3.)
2. Underestimated Land Use Size (Ex. C, pp. 3-4.)

As a result of these errors, the ND underestimates the Project's construction and operational emissions and cannot be relied upon to determine the significance of the Project's air quality impacts.

B. SWAPE's updated analysis of the Project's air quality impacts establishes a fair argument that the Project may result in significant emissions of ROGs.

In an effort to accurately determine the proposed Project's construction and operational emissions, SWAPE prepared an updated CalEEMod model that includes more site-specific information and correct input parameters. (Ex. C, p. 4.) SWAPE's updated analysis accounted for the entire 100,000 square feet of the MOB. (*Id*.) SWAPE's updated analysis found that the Project's construction-related ROG emissions exceed the of 82 pounds per day ("lbs/day") significance threshold set by PCAPCD, as shown below. (*Id*.)

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
IS/ND	17
SWAPE	98
% Increase	476%
PCAPCD Threshold	**82**
Exceeds?	***Yes***

SWAPE's expert analysis of the Project's construction emissions establishes that the Project may result in significant ROG. Under CEQA, SWAPE's fair argument requires that the City prepare an EIR to disclose and mitigate this impact.

VI. An EIR is required for the Project's potentially significant greenhouse gas impacts.

The ND improperly concludes that the Project's greenhouse gas ("GHG") impacts would be less than significant. The ND relies on the City's General Plan Update ("GPU") EIR, which concluded that, even with mitigation, GHG impacts would be significant and unavoidable. The ND then jumps to the conclusion that the Project's GHG impacts would be less than significant because "[t]he project complies with General Plan policy related to GHG and the project does not result in any new GHG impacts not previously analyzed in the GPU EIR." (Initial Study, p. 26.) However, even if the project complies with the City's General Plan policies, it does not follow that the Project's impacts are necessarily less than significant. The GPU EIR concluded that GHG impacts would be significant and unavoidable, so compliance with the General Plan in no way indicates less-than-significant GHG impacts. Instead, the City needs to evaluate *this* Project's GHG impacts to see if they remain significant and unavoidable.

Although the City may tier the Project's GHG impacts from the GPU EIR, an ND is inappropriate where the Project will result in significant and unavoidable impacts. In the case *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 122-25, the court of appeal held that when a "first tier" EIR admits a significant, unavoidable environmental impact, then the agency must prepare second tier EIRs for later projects to ensure that those unmitigated impacts are "mitigated or avoided." (*Id.*) The court reasoned that the unmitigated impacts were not "adequately addressed" in the first tier EIR since the impacts were not "mitigated or avoided." (*Id.*) Thus, significant effects disclosed in first tier EIRs will trigger second tier EIRs unless such effects have been "adequately addressed," in a way that ensures the effects will be "mitigated or avoided." (*Id.*) When a project tiers from a prior EIR but still results in significant and unavoidable impacts, a second tier is required as well as a new Statement of Overriding Considerations. The court explained, "The requirement of a statement of overriding considerations is central to CEQA's role as a public accountability statute; it requires public officials, in approving environmental detrimental projects, to justify their decisions based on

counterbalancing social, economic or other benefits, and to point to substantial evidence in support." (*Id*. at pp. 124-25.)

Here, the ND made no attempt to determine whether the Project's individual GHG impacts would actually be less than significant. In order to evaluate the Project's GHG impacts, SWAPE quantified the Project's GHG emissions and compared them to the PCAPCD's De Minimis Level operational threshold of 1,100 metric tons of carbon dioxide equivalents per year ("MT CO2e/year"). (Ex. C, p. 6.) As shown below, the Project's GHG emissions exceed the PCAPCD threshold:

SWAPE Annual Greenhouse Gas Emissions	
Project Phase	**Proposed Project** (MT CO_2e/year)
Area	*0.00*
Energy	*519.71*
Mobile	*1,837.00*
Waste	*543.13*
Water	*33.48*
Total Annual Emissions	2,933.32
PCAPCD De Minimis Level	**1,100**
Exceeds?	***Yes***

SWAPE's calculation establish a fair argument that the Project may result in significant GHG impacts. Unless the City can ensure that the GUP EIR reduces this impact to a less-than-significant level, an EIR and new Statement of Overriding Considerations is required under CEQA. SWAPE suggests numerous mitigation measures that could be applied to this Project to reduce the GHG impacts. (Ex. C, pp. 9-11.) The City should evaluate these feasible mitigation measures and incorporate them into a new EIR for the Project.

VII. The ND fails to consider renewable energy alternatives.

When analyzing a project's energy use to determine if it creates significant effects, CEQA requires a discussion of whether any renewable energy features could be incorporated into the project. (*League to Save Lake Tahoe Mountain Area Preservation Foundation v. County of Placer* (2022) 75 Cal.App.5th 63, 167 (*League to Save Lake Tahoe*).) Compliance with state and local regulatory programs is not sufficient to determine that a project will not result in a wasteful or inefficient use of energy. (*Id*. at p. 165.)

Although the ND discusses the Project's consistency with the Northeast Roseville Specific Plan EIR (ND, pp. 21-22), there is no discussion of "whether any renewable energy features could be incorporated into the project as part of determining whether the project's impacts on energy resources were significant." (See *League to Save Lake Tahoe*, *supra*, 75 Cal.App.5th at p. 168.) An updated energy analysis should be conducted and circulated in a revised ND or EIR in order to comply with CEQA.

CONCLUSION

LIUNA's experts have established a fair argument that the Project may have significant impacts on related to formaldehyde, ROGs, GHGs, and noise. Furthermore, the ND's analyses of these impacts as well as energy impacts, are not supported by substantial evidence. Therefore, LIUNA respectfully requests that the City prepare and circulate an EIR prior to further consideration of the Project.

Sincerely,



Brian B. Flynn
Lozeau Drury LLP

EXHIBIT A

IEE INDOOR ENVIRONMENTAL ENGINEERING IEE
1448 Pine Street, Suite 103 San Francisco, California 94109
Telephone: (415) 567-7700
E-mail: offermann@IEE-SF.com
http://www.iee-sf.com

Date: May 11, 2022

To: Brian Flynn
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: Sutter Parking Garage and Medical Office Building 7 Project, Roseville, CA. (IEE File Reference: P-4575)

Pages: 18

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of

exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Placer County Air Pollution Control District (PCAPCD, 2017).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m^3 to 28% for the Acute REL of 55 µg/m^3.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentration of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to the Sutter Parking Garage and Medical Office Building 7 Project, Roseville, CA, the buildings consist of a parking garage and a medical office building.

The employees of the medical office building are expected to experience significant indoor

exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because the medical office building spaces will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the medical office building employees work 8 hours per day and inhale 20 m^3 of air per day, the formaldehyde dose per work-day is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not ensure that the indoor air will have concentrations of formaldehyde that substantially exceed 10 per million. The permissible emission rates for

ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can ensure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate

zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines

(OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., $\mu g/m^2$-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 $\mu g/m^2$-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 $\mu g/m^2$-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the

indoor formaldehyde concentration (µg/m^3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration (µg/m^3)

E_{total} = total formaldehyde emission rate (µg/h) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of

formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to ensure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in new homes without mechanical outdoor air ventilation were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never

open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

The Sutter Parking Garage and Medical Office Building 7 Project is close to roads with moderate to high traffic (e.g., I-80, CA-65, Secret Ravine Parkway, East Roseville Parkway, Medical Plaza Drive, etc.).

The Project noise assessment in the Negative Declaration and Initial Study (City of Roseville, 2022), contains no current or future assessment of the ambient noise levels resulting from the nearby roadway traffic. In my professional opinion the ambient noise levels resulting from the nearby roadway traffic will be significant and require specific mitigation measures. An acoustic assessment of the current or future ambient noise levels resulting from the nearby roadway traffic should be conducted.

As a result of the anticipated high outdoor noise levels, the Project will likely require a mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

PM_{10} and $PM_{2.5}$ Outdoor Concentrations Impact. According to the Negative Declaration and Initial Study (City of Roseville, 2022), the Project is located in the Sacramento Valley Air Basin, which is a State non-attainment area for PM_{10} and a Federal non-attainment area for $PM_{2.5}$.

An air quality analyses should to be conducted to determine the concentrations of PM_{10} and $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and

projected future emissions from local sources upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the State PM_{10} and Federal $PM_{2.5}$ concentrations, then the buildings will need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor PM_{10} and $PM_{2.5}$ are less than the State and Federal requirements.

Thus the Project will likely require installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder “speculate” on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct

using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

References

BIFA. 2018. BIFMA Product Safety and Performance Standards and Guidelines. www.bifma.org/page/standardsoverview

California Air Resources Board. 2009. Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products. California Environmental Protection Agency, Sacramento, CA. https://www.arb.ca.gov/regact/2007/compwood07/fro-final.pdf

California Air Resources Board. 2011. Toxic Air Contaminant Identification List. California Environmental Protection Agency, Sacramento, CA. https://www.arb.ca.gov/toxics/id/taclist.htm

California Building Code. 2001. California Code of Regulations, Title 24, Part 2 Volume 1, Appendix Chapter 12, Interior Environment, Division 1, Ventilation, Section 1207: 2001 California Building Code, California Building Standards Commission. Sacramento, CA.

California Building Standards Commission (2014). 2013 California Green Building Standards Code. California Code of Regulations, Title 24, Part 11. California Building Standards Commission, Sacramento, CA http://www.bsc.ca.gov/Home/CALGreen.aspx.

California Energy Commission, PIER Program. CEC-500-2007-033. Final Report, ARB Contract 03-326. Available at: www.arb.ca.gov/research/apr/past/03-326.pdf.

California Energy Commission, 2015. 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, California Code of Regulations, Title 24, Part 6. http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf

CDPH. 2017. Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1. California Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/ DEODC/EHLB/IAQ/Pages/VOC.aspx.

City of Roseville. 2022. Negative Declaration and Initial Study - Sutter Parking Garage Expansion & Sutter MOB 7 Project.

EPA. 2011. Exposure Factors Handbook: 2011 Edition, Chapter 16 – Activity Factors. Report EPA/600/R-09/052F, September 2011. U.S. Environmental Protection Agency, Washington, D.C.

Hodgson, A. T., D. Beal, J.E.R. McIlvaine. 2002. Sources of formaldehyde, other aldehydes and terpenes in a new manufactured house. Indoor Air 12: 235–242.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments.

OEHHA (Office of Environmental Health Hazard Assessment). 2017a. Proposition 65 Safe Harbor Levels. No Significant Risk Levels for Carcinogens and Maximum Allowable Dose Levels for Chemicals Causing Reproductive Toxicity. Available at: http://www.oehha.ca.gov/prop65/pdf/safeharbor081513.pdf

OEHHA - Office of Environmental Health Hazard Assessment. 2017b. All OEHHA Acute, 8-hour and Chronic Reference Exposure Levels. Available at: http://oehha.ca.gov/air/allrels.html

Offermann, F. J. 2009. Ventilation and Indoor Air Quality in New Homes. California Air Resources Board and California Energy Commission, PIER Energy-Related Environmental Research Program. Collaborative Report. CEC-500-2009-085. https://www.arb.ca.gov/research/apr/past/04-310.pdf

Offermann, F. J. and A. T. Hodgson. 2011. Emission Rates of Volatile Organic Compounds in New Homes. Proceedings Indoor Air 2011 (12th International Conference on Indoor Air Quality and Climate 2011), June 5-10, 2011, Austin, TX.

Singer, B.C, Chan, W.R, Kim, Y., Offermann, F.J., and Walker I.S. 2020. Indoor Air Quality in California Homes with Code-Required Mechanical Ventilation. Indoor Air, Vol 30, Issue 5, 885-899.

Placer County Air Pollution Control District (PCAPCD). 2017. CEQA Handbook. Appendix G. https://www.placer.ca.gov/DocumentCenter/View/2044/Appendix-G-Preparing-a-Health-Risk-Assessment-for-Land-Use-Projects-PDF

USGBC. 2014. LEED BD+C Homes v4. U.S. Green Building Council, Washington, D.C. http://www.usgbc.org/credits/homes/v4

APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California"*. In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality"* when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California Department of Public Health,

Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry, could be used without causing indoor formaldehyde concentrations that result in CEQA

cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.



Home
Company Profile
Healthy Building Services
Diagnostic Services
Laboratory Services
Workshops & Seminars
Expert Witness Services
Resources
News & Events
Employment
Contact Us

Expert Witness Services



View Curriculum Vitae (PDF)

Francis (Bud) J. Offermann PE CIH

President: Indoor Environmental Engineering,
San Francisco, CA. December, 1981 - present.
e-mail: offermann@iee-sf.com

Education

- M.S. Mechanical Engineering Stanford University, Stanford, CA.
- Graduate Studies in Air Pollution Monitoring and Control University of California, Berkeley, CA.
- B.S. in Mechanical Engineering Rensselaer Polytechnic Institute, Troy, N.Y.

Professional Affiliations

ACGIH, AIHA, ASHRAE, CSI, ASTM, ISIAQ, PARMA, and USGBC

Work Experience

Mr. Offermann PE, CIH, has 36 years experience as an IAQ researcher, technical author, and workshop instructor. He is president of Indoor Environmental Engineering, a San Francisco based IAQ R&D consulting firm. As president of Indoor Environmental Engineering, Mr. Offermann directs an interdisciplinary team of environmental scientists, chemists, and mechanical engineers in indoor air quality building investigations. Under Mr. Offermann's supervision, IEE has developed both pro-active and reactive IAQ measurement methods and diagnostic protocols. He has supervised over 2,000 IAQ investigations in commercial, residential, and institutional buildings and conducted numerous forensic investigations related to IAQ.

Litigation Experience

Mr. Offermann has been qualified numerous times in court as an expert in the field of indoor air quality and ventilation for both plaintiffs and defendants. He has been deposed over 150 times in cases involving indoor air quality/ventilation issues in commercial, residential, and institutional buildings involving construction defects, and/or operation and maintenance problems. Examples of indoor air quality cases he has worked on are alleged personal injury and/or property damages from mold and bacterial contamination/moisture intrusion, building renovation activities, insufficient outdoor air ventilation, off gassing of volatile organic compounds from building materials and coatings, malfunctioning gas heaters and carbon monoxide poisoning, and applications of pesticides. Mr. Offermann has testified with respect to the scientific admissability of expert testimony regarding indoor air quality issues via Daubert and Kelly-Frye motions.

Copyright 2006 Indoor Environmental Engineering. Site design by Tierra Technology.

CLICKY ANALYTICS CLICKY ANALYTICS

EXHIBIT B

WILSON IHRIG
ACOUSTICS, NOISE & VIBRATION

CALIFORNIA
WASHINGTON
NEW YORK

WI #22-004.12

May 10, 2022

Mr. Brian Flynn
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

SUBJECT: Sutter Parking Garage Expansion and Medical Office Building Negative Declaration, Comments on the Noise Analysis

Dear Mr. Flynn,

Per your request, I have reviewed the subject matter document for the Sutter Parking Garage Expansion and Medical Office Building Negative Declaration (ND) in Roseville, California. The proposed Project would include expansion of an existing 5-story parking garage with a 6-story addition and a new medical office building (MOB) that would be constructed in two phases: initial 4-story structure, and a 2-story addition to be added later. The MOB would house a new Graduate Medical Education (GME) program.

Context and Analysis from the prior EIR are Omitted

The ND references the Sutter Roseville Medical Center Master Plan EIR[1] (EIR) as documents relied upon for the preparation of the ND. These documents were not available online via CEQANet nor under the City's Planning Department website. The ND omits any mention of key information it may have used in the noise analysis, such as significance thresholds, impacts, and mitigation measures. Thus, it is difficult to determine whether the components of the project fall within the prior environmental analysis.

Thresholds of Significance are Not Properly Developed

Lacking access to the prior EIR, the ND lacks any discussion of the thresholds used to determine significance. Per CEQA[2], the ND must clearly identify and mitigate eliminate **potentially** significant effects, as shown in Figure 1.

[1] SCH #90020142 and #93092081
[2] https://govt.westlaw.com/calregs/Document/IA1DEFD80D48811DEBC02831C6D6C108E?

§ 15070. Decision to Prepare a Negative or Mitigated Negative Declaration.

A public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

(b) The initial study identifies potentially significant effects, but:

(1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Figure 1 CEQA Section 15070 (a) and (b)

The Roseville *CEQA Implementing Procedures* (Procedures) are referenced throughout the ND, and the ND states that Findings from these Procedures was that the City's noise ordinance would be sufficient to determine significance of noise impacts. These Procedures[3] available online do not appear to be the right document, as there are no "Findings", and this Procedures document includes no discussion about CEQA thresholds to use in CEQA analysis. Thus, there is no evidence to substantiate that the noise ordinance is sufficient to determine potential significance.

The project includes a new private outdoor area. The ND does not appear to show where this outdoor area would be located, nor how it would be used. The hours of operation of this private outdoor area have not been provided, and if large gatherings (social or meetings) would be held, with amplified voice or music, this would be a new usage and potentially significant.

Thus, thresholds that could be considered to evaluate potentially significant noise impacts include:

Sleep disturbance and annoyance

The ND lacks any assessment of potentially significant noise impacts caused by activities in the private outdoor area. Although the health effects of noise are not taken as seriously in the United States as they are in other countries, they are real and, in many parts of the country, pervasive[4]. Noise can disturb sleep by making it more difficult to fall asleep, by waking someone after they are asleep, or by altering their sleep stage, e.g., reducing the amount of rapid eye movement (REM) sleep. Noise exposure for people who are sleeping has also been linked to increased blood pressure, increased heart rate, increase in body movements, and other physiological effects. Not surprisingly, people whose sleep is disturbed by noise often experience secondary effects such as increased fatigue, depressed mood, and decreased work performance.

Thus, excessive noise from amplified speech or music in the private outdoor area occurring between 10 PM and 7 AM could cause sleep disturbance and would be potentially significant. The World Health Organization[5] (WHO) identifies a guidance of 45 dBA Leq (outdoors) to avoid sleep disturbance from

[3] https://roseville.ca.us/government/departments/development_services/planning/citywide_planning_documents
[4] More information on these and other adverse effects of noise may be found in Guidelines for Community Noise, eds B Berglund, T Lindvall, and D Schwela, World Health Organization, Geneva, Switzerland, 1999. https://www.who.int/docstore/peh/noise/Comnoise-1.pdf
[5] Ibid.

a continuous source, and a limit of 60 dBA Lmax for intermittent sources[6]. However, it has been our experience that low frequency bass notes, commonly found in music played at social events, can be problematic even when the A-weighted level complies with applicable code. This is partly because the low frequencies pass through the exterior walls and closed windows with little reduction.

For annoyance, WHO identifies a guidance of 50 dBA Leq (outdoors) to avoid moderate annoyance during daytime and evening hours (7 AM to 10 PM).

Speech Interference

For intelligibility of speech, which could be substantially impacted for people in nearby offices or working from home, WHO identifies a guidance of 35 dBA Leq (indoors), which equates to 50 dBA Leq outdoors for building with open windows. If the windows can be shut (e.g., if sufficient ventilation is provided), then the outdoor noise limit would be 60 dBA Leq.

Construction Noise and Vibration

Similarly, the effect of construction noise and vibration has been minimized in the ND discussion. The ND characterizes construction as "temporary" and appears to rely on this fact to avoid evaluation of the construction noise and vibration. The ND provides no metrics to evaluate the significance of construction noise and vibration. Daytime construction could interfere with daytime activities, such as interfering with speech during conversations and phone calls.

Caltrans provides guidance to evaluate the effects of vibration from construction sources[7]. Construction activities which generate vibration on the order of 0.04 in/sec PPV for continuous or frequent intermittent sources such as vibratory compaction and 0.25 in/sec PPV for transient sources such as trucks are "distinctly perceptible" and could be potentially significant.

Noise Ordinance Compliance

Table 1 of the Roseville Noise Regulation (Chapter 9/24)[8] identifies a noise limits of 50 dBA during the daytime (7 AM to 10 PM) and 45 dBA during the nighttime (10 PM to 7 AM) from non-transportation or fixed sound sources. This information is lacking in the ND.

Impact Analyses are Incomplete

Mechanical equipment

The ND provides no evidence that the rooftop equipment for the MOB would comply with the Municipal code, and provides no evidence that the addition of such equipment would be less than significant at the nearest residential structure, which is only 120 ft away. Depending on the cooling needs, commercial-use air handling cooling systems can generate 78 to 94 dBA at 3 ft[9]. With two of these units in operation the resulting noise level at the nearest residence would be 49 to 65 dBA. This would be a potentially significant impact. If this equipment would operate into the nighttime hours,

[6] These outdoor levels assume that the residence reduces noise by 15 dBA with windows open, which is typical for conventional construction.
[7] https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf
[8] https://library.qcode.us/lib/roseville_ca/pub/municipal_code/item/title_9-chapter_9_24
[9] Carrier N series generates 76 dBA at 25 ft distance, or about 94 dBA at 3 ft.

it would exceed the 45 dBA noise limit; during daytime hours, the largest of the potential equipment would also exceed the 50 dBA noise limit.

Emergency/standby generators are commonly used for essential buildings, and the ND appears to lack any discussion of such equipment in the noise analysis.

Construction Noise

Information from Caltrans[10] and other sources can be used to estimate noise from construction. Demolition of existing buildings, excavation, foundations, concrete and building erection will all require several months of activity. Even if this work would only be conducted during daytime hours, the interference on daytime activities such as talking on the phone, conducting meetings, etc. at nearby offices and residences could be potentially significant. The ND provides no evidence that the on-going construction noise and vibration would be less than significant. Table 1 provides sample calculations from five different types of construction equipment, some of which could combine. Thus, during demolition and site preparation, noise from a hoe ram, excavator, or dozer could generate noise as high as 72 to 86 dBA Lmax at the nearest residence, with on-going noise over several hours each day ranging from 68 to 79 dBA Leq. If several activities and/or equipment would be operating at the same time, the noise would be even higher. During building construction, the noise from a crane, front end loader or pneumatic tools would range from 67 to 77 dBA Lmax, with on-going noise levels of 63 to 74 dBA Leq. Based on the WHO guidance, these exterior noise levels would all cause speech interference at interior locations. This would be potentially significant at nearby noise sensitive receptors.

Table 1 Sample Calculations from Construction Noise

Equipment	Reference Level at 50 ft (dBA)	Usage Factor (%)	Distance to Nearest Residence			Intermittent Level (dBA Lmax)			On-going Level (dBA Leq)		
			Near distance	Building edge	Center distance	Near distance	Building edge	Center distance	Near distance	Building edge	Center distance
Mounted Impact Hammer Hoe Ram	90	20	75	120	230	86	82	77	79	75	70
Excavator or Dozer	85	40	75	120	230	81	77	72	77	73	68
Crane	85	16	75	120	230	N/A	77	72	N/A	69	64
Front end loader	80	40	75	120	230	76	72	67	72	68	63
Pneumatic Tools	85	50	75	120	230	N/A	77	72	N/A	74	69

Noise Mitigations are Lacking

As noted above, the rooftop equipment on the MOB would potentially exceed the noise limits. Mitigations include selection, siting and/or screening of the mechanical equipment to ensure that the combined mechanical equipment noise would be properly controlled to meet 50 dBA during the daytime and 45 dBA at nighttime.

[10] https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf

To mitigate construction noise, mitigation measures should include the following, and the ND should include evidence that these measures would be sufficient to eliminate the (potentially) significant impacts below the thresholds of significance:

- Sound barrier or blankets that block line of sight from the noisiest construction equipment and activities to the noise sensitive neighbors.
- Buffer distances to keep noisy activities and stationary equipment away from noise sensitive neighbors.
- Notification is useful community outreach, but has no bearing on reducing noise.

Conclusions

The ND lacks evidence to support its conclusions regarding construction noise and vibration and operational noise. Thresholds of significance have been omitted from the document. The mechanical noise, generator noise and construction noise analyses in the ISMND also are not complete, and based on the analysis discussed above, mitigations are required.

Please feel free to contact me with any questions on this information.

Very truly yours,

WILSON IHRIG

Deborah A. Jue

Deborah A. Jue, INCE-USA
Principal

sutter garage mob nd_noise review_wilson ihrig_5-10-22.docx

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

May 11, 2022

Brian Flynn
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94618

Subject: Comments on the Sutter Parking Garage Expansion Project (SCH No. 2022040255)

Dear Mr. Flynn,

We have reviewed the April 2022 Initial Study / Negative Declaration ("IS/ND") for the Sutter Parking Garage Expansion & Sutter MOB Project ("Project") located in the City of Roseville ("City"). The Project proposes to expand the existing 5-story parking structure with the addition of a 6-story parking structure on a 0.94-acre site, as well as construct of a 100,000-square-foot ("SF") medical office building on a 1.64-acre site.

Our review concludes that the IS/ND fails to adequately evaluate the Project's air quality and greenhouse gas impacts. As a result, emissions associated with construction of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality

Failure to Adequately Evaluate Operational Criteria Air Pollutant Emissions

The IS/ND fails to quantify the Project's operational criteria air pollutant emissions. Specifically, the IS/ND states:

> "The PCAPCD maintains screening thresholds to determine when modeling is required to evaluate impacts resulting from project operation. The screening thresholds indicates a General Office project must involve more than 648,000 square feet of building area before the PCAPCD significance thresholds for criteria pollutants are likely to be exceed. The proposed MOB includes 100,000 square feet of building area, and the parking garage expansion includes

approximately 200,000 square feet of building area, which is well below the screening thresholds; therefore, the project will not result in operational emissions which exceed established thresholds" (p. 14).

Review of the Placer County Air Pollution Control District ("PCAPCD") demonstrates that the air district includes screening thresholds (see excerpt below):[1]

Table 2-2: Corresponding Size of a Project for 55 lbs/day of NOx Emissions

Residential (# of units)			Commercial/Industrial (sf)		
Single Family	Condo	Apartment	General Commercial	General Office	General Industrial
617	868	911	249,099	648,661	894,262

As demonstrated above, the screening thresholds are associated with NO_X emissions. Furthermore, the PCAPCD states that the above-mentioned thresholds are a "preliminary screening methodology and it does not include ROG operational emissions."[2] Thus, while the IS/ND is correct in concluding that the size of the proposed Project is below the "General Office" threshold of 648,661-SF, the IS/ND fails to acknowledge that the threshold is only applicable to operational NO_X emissions. As such, the IS/ND fails to quantify the Project's operational ROG emissions, which is incorrect per PCAPCD guidance. The Project should not be approved until an EIR is prepared to evaluate the ROG emissions associated with Project operation.

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The air quality analysis provided in the IS/ND relies on emissions calculated with the California Emissions Estimator Model ("CalEEMod") Version 2020.4.0 (p. 14).[3] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project's CalEEMod output files, provided in Attachment 3 to the IS/ND, we found that several model inputs are not consistent with information disclosed in the IS/ND. As a result, the Project's construction-related emissions are underestimated. An EIR should be prepared to include an

[1] "Chapter 2: Thresholds of Significance." PCAPCD, *available at:* https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF, p. 21, Table 2-2.
[2] "Chapter 2: Thresholds of Significance." PCAPCD, *available at:* https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF, p. 21.
[3] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

updated air quality analysis that adequately evaluates the impacts that construction of the Project will have on local and regional air quality.

Underestimated Land Use Size

According to the IS/ND:

> "The second DRP is for the construction of a 100,000 square foot medical office building constructed in two phases; Phase 1 totaling 85,000 square feet would be constructed immediately after City approval and Phase 2 totaling 15,000 square feet in size would be constructed at a later date" (p. 1).

As such, the model should have included 100,000-SF of medical office space. However, review of the CalEEMod output files demonstrates that the "Sutter Parking Garage Expansion & MOB 10" model includes only 100-SF of medical office space (see excerpt below) (Attachment 3, pp. 68, 98, 124).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area
Medical Office Building	1.00	1000sqft	1.64	100.00
Enclosed Parking with Elevator	1.00		0.94	191,957.00

As demonstrated in the excerpt above, the proposed medical office space is underestimated by 99,900-SF.[4] This underestimation presents an issue, as the land use size feature is used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations. The square footage of a land use is used for certain calculations, such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings).[5] As such, by underestimating the size of the proposed medical office land use, the model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance.

Underestimated Parking Land Use Size

Review of the CalEEMod output files demonstrates that the "Sutter Parking Garage Expansion & MOB 10" model includes 191,957-SF of parking land use space (see excerpt below) (Attachment 3, pp. 68, 98, 124).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area
Medical Office Building	1.00	1000sqft	1.64	100.00
Enclosed Parking with Elevator	1.00		0.94	191,957.00

However, regarding the size of the proposed parking structure, the IS/ND simply states:

> "The proposed expansion will consist of six-levels tied into the existing five-level parking garage" (p. 1).

[4] Calculated: (100,000-SF proposed warehouse space) – (100-SF modeled warehouse space) = 99,900-SF underestimated warehouse space.

[5] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 28.

As such, the IS/ND fails to substantiate the exact square-footage or the number of spaces to be provided by the proposed parking structure. This is incorrect, as according to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA." [6]

Here, as the IS/ND and associated documents fail to provide substantial evidence to support the land use size of the proposed parking structure, we cannot verify that the model is accurate.

This presents an issue, as the square footage of parking land uses is used for certain calculations, such as determining the area to be painted and stripped (i.e., VOC emissions from architectural coatings).[7] Thus, by potentially underestimating the proposed parking land use size, the model may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions, we prepared an updated CalEEMod model, using the Project-specific information provided by the IS/ND. In our updated model, we accounted for the entire 100,000-SF medical office building.[8]

Our updated analysis estimates that the Project's construction-related ROG emissions would exceed the applicable PCAPCD threshold of 82 pounds per day ("lbs/day"), as referenced by the IS/ND (p. 14) (see table below).[9]

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
IS/ND	17
SWAPE	98
% Increase	476%
PCAPCD Threshold	**82**
Exceeds?	***Yes***

As you can see in the table above, the Project's construction-related ROG emissions, as estimated by SWAPE, increase by approximately 476% and exceed the PCAPCD significance threshold. Thus, our

[6] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 13-14.
[7] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 29.
[8] See Attachment A for updated air modeling.
[9] "Chapter 2: Thresholds of Significance." PCAPCD, *available at:* https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF, p. 21, Table 2-1.

updated model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the IS/ND. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on environment.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

Regarding the Project's potential greenhouse gas ("GHG") impact, the IS/ND states:

> "The City's General Plan Update (GPU) EIR included an analysis of GHG emissions, which would result from buildout of the City's General Plan. The EIR concluded that General Plan build out would exceed the City's threshold of 2.25 MT CO_2e per service population and that the affect was cumulatively considerable. Although mitigation measures were adopted as part of the General Plan, those measures would not reduce impacts to less-than-significant levels and impacts were considered significant and unavoidable. The proposed project is consistent with the land use assumptions in the GPU EIR and does not require further analysis per the tiering provisions of CEQA. The project includes reasonable and feasible design measures to reduce emissions, including implementation of the latest Cal-Green and energy efficiency code requirements. The medical office building will incorporate several alternative transportation measures like bike racks immediately in front of the medical office building. The project complies with General Plan policy related to GHG and the project does not result in any new GHG impacts not previously analyzed in the GPU EIR; therefore, impacts are less than significant" (p. 25-26).

However, the IS/ND fails to make any effort to quantify or evaluate the Project's GHG emissions. As a result, the IS/ND's analysis of the Project's potential GHG impact, as well as the subsequent less-than-significant impact conclusion, is incorrect for two reasons.

(1) The IS/ND fails to quantify the Project's potential GHG emissions; and
(2) The IS/ND fails to indicate a potentially significant impact.

1) Failure to Quantify GHG Emissions

As previously stated, the IS/ND concludes that the Project would result in a significant-and-unavoidable GHG impact (p. 25-26). However, the IS/ND fails to estimate the Project's net annual GHG emissions whatsoever. By failing to evaluate or quantify the Project's potential GHG emissions, the Project is inconsistent with CEQA. Specifically, according to CEQA Guidelines § 15064.4(a):

> "A lead agency shall make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." [10]

[10] "Final Adopted Text for Revisions to the CEQA Guidelines." Governor's Office of Planning and Research ("OPR"), *available at:* https://opr.ca.gov/ceqa/updates/guidelines/, p. 13.

As you can see in the excerpt above, CEQA Guidelines require a Project to "describe, calculate, or estimate" the GHG emissions that would be generated by the Project. Here, by failing to evaluate or quantify the Project's GHG emissions, the IS/ND is inconsistent with CEQA Guidelines and lacks evidence to support its conclusion that the Project emissions would be less-than-significant.

2) Updated Analysis Indicates a Potentially Significant Impact

In an effort to quantitatively evaluate the Project's GHG emissions, we compared the Project's GHG emissions, as estimated by SWAPE, to the PCAPCD De Minimis Level operational threshold of 1,100 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year").[11] When applying this threshold, SWAPE's updated air model indicates a potentially significant GHG impact.

The updated CalEEMod output files indicate that the Project would generate approximately 2,933.32 MT CO_2e/year of net annual GHG operational emissions (sum of area-, energy-, mobile-, waste-, and water-related emissions) (see table below).

SWAPE Annual Greenhouse Gas Emissions

Project Phase	**Proposed Project** (MT CO_2e/year)
Area	*0.00*
Energy	*519.71*
Mobile	*1,837.00*
Waste	*543.13*
Water	*33.48*
Total Annual Emissions	2,933.32
PCAPCD De Minimis Level	**1,100**
Exceeds?	***Yes***

As demonstrated above, the Project's net annual operational GHG emissions, as estimated by SWAPE, exceed the PCAPCD's De Minimis Level threshold of 1,100 MT CO_2e/year. According to PCAPCD guidance:

> "Projects with GHG emissions which exceed the De Minimis Level of 1,100 MT CO_2e/yr, but less than 10,000 MTCO_2e/yr can still be found less than cumulatively considerable when the result of project related efficiency analysis would meet one of conditions in the efficiency matrix for the applicable land use setting and land use type provided." [12]

[11] "California Environmental Quality Act Thresholds of Significance." Placer County Air Pollution Control District ("PCAPCD"), October 2016, *available at:* https://www.placer.ca.gov/DocumentCenter/View/2061/Threshold-Justification-Report-PDF, p. E-2.

[12] "California Environmental Quality Act Thresholds of Significance." Placer County Air Pollution Control District ("PCAPCD"), October 2016, *available at:* https://www.placer.ca.gov/DocumentCenter/View/2061/Threshold-Justification-Report-PDF, p. E-2.

As demonstrated above, for projects that exceed 1,100 MT CO_2e/year, the PCAPCD requires additional GHG analysis to determine a less-than-significant impact. As such, the Project may result in a potentially significant GHG impact not previously identified or addressed by the IS/ND. An EIR should be prepared to include an updated GHG analysis per PCAPCD guidance and adequately mitigate potential GHG impacts, if necessary.

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality and GHG impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project's emissions, we recommend consideration of SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1") and Greenhouse Gas Project Level Mitigation Measures ("PMM-GHG-1"), as described below: [13]

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.
e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.

[13] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.

m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.

n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.

o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.

p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.

q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.

s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.

t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.

u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).

z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.

aa) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities.

bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible:

- Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%
- Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
- Nonroad diesel engines on site shall be Tier 2 or higher.
- Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.
- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.

iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.

- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

cc) Project should exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code). The following measures can be used to increase energy efficiency:

- Provide pedestrian network improvements, such as interconnected street network, narrower roadways and shorter block lengths, sidewalks, accessibility to transit and transit shelters, traffic calming measures, parks and public spaces, minimize pedestrian barriers.
- Provide traffic calming measures, such as:
    i. Marked crosswalks
    ii. Count-down signal timers
    iii. Curb extensions iv. Speed tables
    iv. Raised crosswalks
    v. Raised intersections
    vi. Median islands
    vii. Tight corner radii
    viii. Roundabouts or mini-circles
    ix. On-street parking
    x. Chicanes/chokers
- Create urban non-motorized zones
- Provide bike parking in non-residential and multi-unit residential projects
- Dedicate land for bike trails
- Limit parking supply through:
    i. Elimination (or reduction) of minimum parking requirements
    ii. Creation of maximum parking requirements
    iii. Provision of shared parking
- Require residential area parking permit.
- Provide ride-sharing programs
    i. Designate a certain percentage of parking spacing for ride sharing vehicles
    ii. Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
    iii. Providing a web site or messaging board for coordinating rides
    iv. Permanent transportation management association membership and finding requirement.

Greenhouse Gas Project Level Mitigation Measures – PMM-GHG-1

In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
b) Reduce emissions resulting from projects through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines.
c) Include off-site measures to mitigate a project's emissions.
d) Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction and operation of projects to minimize GHG emissions, including but not limited to: i. Use energy and fuel-efficient vehicles and equipment; ii. Deployment of zero- and/or near zero emission technologies; iii. Use lighting systems that are energy efficient, such as LED technology; iv. Use the minimum feasible amount of GHG-emitting construction materials; v. Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production; vi. Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse; vii. Incorporate design measures to reduce energy consumption and increase use of renewable energy; viii. Incorporate design measures to reduce water consumption; ix. Use lighter-colored pavement where feasible; x. Recycle construction debris to maximum extent feasible; xi. Plant shade trees in or near construction projects where feasible; and xii. Solicit bids that include concepts listed above.
e) Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to the following: i. Promote transit-active transportation coordinated strategies; ii. Increase bicycle carrying capacity on transit and rail vehicles; iii. Improve or increase access to transit; iv. Increase access to common goods and services, such as groceries, schools, and day care; v. Incorporate affordable housing into the project; vi. Incorporate the neighborhood electric vehicle network; vii. Orient the project toward transit, bicycle and pedestrian facilities; viii. Improve pedestrian or bicycle networks, or transit service; ix. Provide traffic calming measures; x. Provide bicycle parking; xi. Limit or eliminate park supply; xii. Unbundle parking costs; xiii. Provide parking cash-out programs; xiv. Implement or provide access to commute reduction program;
f) Incorporate bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; and planning for and building local bicycle projects that connect with the regional network;
g) Improving transit access to rail and bus routes by incentives for construction and transit facilities within developments, and/or providing dedicated shuttle service to transit stations; and

h) Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs including but not limited to measures that:

i. Provide car-sharing, bike sharing, and ride-sharing programs;
ii. Provide transit passes;
iii. Shift single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services;
iv. Provide incentives or subsidies that increase that use of modes other than single-occupancy vehicle;
v. Provide on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms;
vi. Provide employee transportation coordinators at employment sites;
vii. Provide a guaranteed ride home service to users of non-auto modes.

i) Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles;

j) Land use siting and design measures that reduce GHG emissions, including:

i. Developing on infill and brownfields sites;
ii. Building compact and mixed-use developments near transit;
iii. Retaining on-site mature trees and vegetation, and planting new canopy trees;
iv. Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and
v. Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.

k) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities. The measures provided above are also intended to be applied in low income and minority communities as applicable and feasible.

l) Require at least five percent of all vehicle parking spaces include electric vehicle charging stations, or at a minimum, require the appropriate infrastructure to facilitate sufficient electric charging for passenger vehicles and trucks to plug-in.

m) Encourage telecommuting and alternative work schedules, such as:

i. Staggered starting times
ii. Flexible schedules
iii. Compressed work weeks

n) Implement commute trip reduction marketing, such as:

i. New employee orientation of trip reduction and alternative mode options
ii. Event promotions
iii. Publications

o) Implement preferential parking permit program

p) Implement school pool and bus programs

q) Price workplace parking, such as:

i. Explicitly charging for parking for its employees;
ii. Implementing above market rate pricing;
iii. Validating parking only for invited guests;
iv. Not providing employee parking and transportation allowances; and
v. Educating employees about available alternatives.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. An EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality, health risk, and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachment A: CalEEMod Output Files
Attachment B: Matt Hagemann CV
Attachment C: Paul E. Rosenfeld CV

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sutter Parking Garage Expansion & MOB 10

Placer-Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.64	100,000.00	0
Enclosed Parking with Elevator	1.00	1000sqft	0.94	191,957.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/ND's model.

Land Use - See SWAPE comment on "Underestimated Land Use Size"

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,000.00	191,957.00
tblLandUse	LotAcreage	2.30	1.64
tblLandUse	LotAcreage	0.02	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2206	1.7553	1.7427	4.0800e-003	0.1295	0.0751	0.2045	0.0393	0.0716	0.1109	0.0000	358.0225	358.0225	0.0454	0.0145	363.4872
2023	0.5434	0.4187	0.4740	1.0900e-003	0.0291	0.0171	0.0462	7.9200e-003	0.0163	0.0242	0.0000	95.5395	95.5395	0.0121	3.7200e-003	96.9507
Maximum	**0.5434**	**1.7553**	**1.7427**	**4.0800e-003**	**0.1295**	**0.0751**	**0.2045**	**0.0393**	**0.0716**	**0.1109**	**0.0000**	**358.0225**	**358.0225**	**0.0454**	**0.0145**	**363.4872**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2206	1.7553	1.7427	4.0800e-003	0.1295	0.0751	0.2045	0.0393	0.0716	0.1109	0.0000	358.0223	358.0223	0.0454	0.0145	363.4870
2023	0.5434	0.4187	0.4740	1.0900e-003	0.0291	0.0171	0.0462	7.9200e-003	0.0163	0.0242	0.0000	95.5394	95.5394	0.0121	3.7200e-003	96.9507
Maximum	**0.5434**	**1.7553**	**1.7427**	**4.0800e-003**	**0.1295**	**0.0751**	**0.2045**	**0.0393**	**0.0716**	**0.1109**	**0.0000**	**358.0223**	**358.0223**	**0.0454**	**0.0145**	**363.4870**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-23-2022**	**6-22-2022**	0.6247	0.6247
2	**6-23-2022**	**9-22-2022**	0.6427	0.6427
3	**9-23-2022**	**12-22-2022**	0.6415	0.6415
4	**12-23-2022**	**3-22-2023**	0.6046	0.6046
5	**3-23-2023**	**6-22-2023**	0.4270	0.4270
		Highest	0.6427	0.6427

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	0.4521	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	517.3496	517.3496	0.0318	5.2400e-003	519.7057
Mobile	1.2146	1.6056	10.3109	0.0192	1.8926	0.0176	1.9102	0.5070	0.0165	0.5235	0.0000	1,803.0820	1,803.0820	0.1297	0.1030	1,837.0035
Waste						0.0000	0.0000		0.0000	0.0000	219.2302	0.0000	219.2302	12.9561	0.0000	543.1336
Water						0.0000	0.0000		0.0000	0.0000	3.9809	16.3269	20.3078	0.4100	9.7900e-003	33.4766
Total	**1.6754**	**1.6855**	**10.3790**	**0.0197**	**1.8926**	**0.0237**	**1.9162**	**0.5070**	**0.0226**	**0.5296**	**223.2112**	**2,336.7603**	**2,559.9714**	**13.5277**	**0.1180**	**2,933.3213**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4521	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	517.3496	517.3496	0.0318	5.2400e-003	519.7057
Mobile	1.2146	1.6056	10.3109	0.0192	1.8926	0.0176	1.9102	0.5070	0.0165	0.5235	0.0000	1,803.0820	1,803.0820	0.1297	0.1030	1,837.0035
Waste						0.0000	0.0000		0.0000	0.0000	219.2302	0.0000	219.2302	12.9561	0.0000	543.1336
Water						0.0000	0.0000		0.0000	0.0000	3.9809	16.3269	20.3078	0.4100	9.7900e-003	33.4766
Total	**1.6754**	**1.6855**	**10.3790**	**0.0197**	**1.8926**	**0.0237**	**1.9162**	**0.5070**	**0.0226**	**0.5296**	**223.2112**	**2,336.7603**	**2,559.9714**	**13.5277**	**0.1180**	**2,933.3213**

	ROG	NOx	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	3/23/2022	4/19/2022	5	20	
2	Site Preparation	Site Preparation	4/20/2022	4/22/2022	5	3	
3	Grading	Grading	4/23/2022	5/2/2022	5	6	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	5/3/2022	3/6/2023	5	220	
5	Paving	Paving	3/7/2023	3/20/2023	5	10	
6	Architectural Coating	Architectural Coating	3/21/2023	4/3/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,517 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**		**8.3800e-003**	**8.3800e-003**		**7.8300e-003**	**7.8300e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2120**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	3.1800e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.8276	0.8276	3.0000e-005	2.0000e-005	0.8354
Total	**3.6000e-004**	**2.5000e-004**	**3.1800e-003**	**1.0000e-005**	**1.0200e-003**	**1.0000e-005**	**1.0300e-003**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**0.8276**	**0.8276**	**3.0000e-005**	**2.0000e-005**	**0.8354**

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	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**		**8.3800e-003**	**8.3800e-003**		**7.8300e-003**	**7.8300e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	3.1800e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.8276	0.8276	3.0000e-005	2.0000e-005	0.8354
Total	**3.6000e-004**	**2.5000e-004**	**3.1800e-003**	**1.0000e-005**	**1.0200e-003**	**1.0000e-005**	**1.0300e-003**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**0.8276**	**0.8276**	**3.0000e-005**	**2.0000e-005**	**0.8354**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0764	0.0764	0.0000	0.0000	0.0771
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0764**	**0.0764**	**0.0000**	**0.0000**	**0.0771**

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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0764	0.0764	0.0000	0.0000	0.0771
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0764**	**0.0764**	**0.0000**	**0.0000**	**0.0771**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	7.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1910	0.1910	1.0000e-005	1.0000e-005	0.1928
Total	**8.0000e-005**	**6.0000e-005**	**7.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1910**	**0.1910**	**1.0000e-005**	**1.0000e-005**	**0.1928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	7.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1910	0.1910	1.0000e-005	1.0000e-005	0.1928
Total	**8.0000e-005**	**6.0000e-005**	**7.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1910**	**0.1910**	**1.0000e-005**	**1.0000e-005**	**0.1928**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1614	1.2706	1.2487	2.1800e-003		0.0611	0.0611		0.0586	0.0586	0.0000	180.6817	180.6817	0.0349	0.0000	181.5532
Total	**0.1614**	**1.2706**	**1.2487**	**2.1800e-003**		**0.0611**	**0.0611**		**0.0586**	**0.0586**	**0.0000**	**180.6817**	**180.6817**	**0.0349**	**0.0000**	**181.5532**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.7800e-003	0.2246	0.0669	8.8000e-004	0.0273	2.0600e-003	0.0293	7.9000e-003	1.9700e-003	9.8600e-003	0.0000	83.9194	83.9194	3.6000e-004	0.0127	87.7117
Worker	0.0273	0.0192	0.2404	6.8000e-004	0.0772	4.1000e-004	0.0776	0.0206	3.8000e-004	0.0209	0.0000	62.5858	62.5858	1.9600e-003	1.8000e-003	63.1723
Total	**0.0351**	**0.2438**	**0.3074**	**1.5600e-003**	**0.1045**	**2.4700e-003**	**0.1069**	**0.0285**	**2.3500e-003**	**0.0308**	**0.0000**	**146.5053**	**146.5053**	**2.3200e-003**	**0.0145**	**150.8839**

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	0.1614	1.2706	1.2487	2.1800e-003		0.0611	0.0611		0.0586	0.0586	0.0000	180.6815	180.6815	0.0349	0.0000	181.5529
Total	**0.1614**	**1.2706**	**1.2487**	**2.1800e-003**		**0.0611**	**0.0611**		**0.0586**	**0.0586**	**0.0000**	**180.6815**	**180.6815**	**0.0349**	**0.0000**	**181.5529**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.7800e-003	0.2246	0.0669	8.8000e-004	0.0273	2.0600e-003	0.0293	7.9000e-003	1.9700e-003	9.8600e-003	0.0000	83.9194	83.9194	3.6000e-004	0.0127	87.7117
Worker	0.0273	0.0192	0.2404	6.8000e-004	0.0772	4.1000e-004	0.0776	0.0206	3.8000e-004	0.0209	0.0000	62.5858	62.5858	1.9600e-003	1.8000e-003	63.1723
Total	**0.0351**	**0.2438**	**0.3074**	**1.5600e-003**	**0.1045**	**2.4700e-003**	**0.1069**	**0.0285**	**2.3500e-003**	**0.0308**	**0.0000**	**146.5053**	**146.5053**	**2.3200e-003**	**0.0145**	**150.8839**

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	0.0394	0.3134	0.3269	5.8000e-004		0.0141	0.0141		0.0135	0.0135	0.0000	47.7715	47.7715	9.0300e-003	0.0000	47.9973
Total	**0.0394**	**0.3134**	**0.3269**	**5.8000e-004**		**0.0141**	**0.0141**		**0.0135**	**0.0135**	**0.0000**	**47.7715**	**47.7715**	**9.0300e-003**	**0.0000**	**47.9973**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0510	0.0162	2.2000e-004	7.2100e-003	3.1000e-004	7.5200e-003	2.0900e-003	2.9000e-004	2.3800e-003	0.0000	21.4399	21.4399	6.0000e-005	3.2400e-003	22.4075
Worker	6.7100e-003	4.5000e-003	0.0591	1.7000e-004	0.0204	1.0000e-004	0.0205	5.4300e-003	9.0000e-005	5.5300e-003	0.0000	16.1169	16.1169	4.7000e-004	4.4000e-004	16.2608
Total	**7.9800e-003**	**0.0555**	**0.0753**	**3.9000e-004**	**0.0276**	**4.1000e-004**	**0.0280**	**7.5200e-003**	**3.8000e-004**	**7.9100e-003**	**0.0000**	**37.5568**	**37.5568**	**5.3000e-004**	**3.6800e-003**	**38.6683**

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	0.0394	0.3134	0.3269	5.8000e-004		0.0141	0.0141		0.0135	0.0135	0.0000	47.7714	47.7714	9.0300e-003	0.0000	47.9973
Total	**0.0394**	**0.3134**	**0.3269**	**5.8000e-004**		**0.0141**	**0.0141**		**0.0135**	**0.0135**	**0.0000**	**47.7714**	**47.7714**	**9.0300e-003**	**0.0000**	**47.9973**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0510	0.0162	2.2000e-004	7.2100e-003	3.1000e-004	7.5200e-003	2.0900e-003	2.9000e-004	2.3800e-003	0.0000	21.4399	21.4399	6.0000e-005	3.2400e-003	22.4075
Worker	6.7100e-003	4.5000e-003	0.0591	1.7000e-004	0.0204	1.0000e-004	0.0205	5.4300e-003	9.0000e-005	5.5300e-003	0.0000	16.1169	16.1169	4.7000e-004	4.4000e-004	16.2608
Total	**7.9800e-003**	**0.0555**	**0.0753**	**3.9000e-004**	**0.0276**	**4.1000e-004**	**0.0280**	**7.5200e-003**	**3.8000e-004**	**7.9100e-003**	**0.0000**	**37.5568**	**37.5568**	**5.3000e-004**	**3.6800e-003**	**38.6683**

3.6 Paving - 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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8179**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.9000e-004	1.3000e-004	1.7100e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4651	0.4651	1.0000e-005	1.0000e-005	0.4692
Total	**1.9000e-004**	**1.3000e-004**	**1.7100e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4651**	**0.4651**	**1.0000e-005**	**1.0000e-005**	**0.4692**

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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8178**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.9000e-004	1.3000e-004	1.7100e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4651	0.4651	1.0000e-005	1.0000e-005	0.4692
Total	**1.9000e-004**	**1.3000e-004**	**1.7100e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4651**	**0.4651**	**1.0000e-005**	**1.0000e-005**	**0.4692**

3.7 Architectural Coating - 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					
Archit. Coating	0.4902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.4912**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	3.0000e-004	2.0000e-004	2.6200e-003	1.0000e-005	9.0000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7131	0.7131	2.0000e-005	2.0000e-005	0.7195
Total	**3.0000e-004**	**2.0000e-004**	**2.6200e-003**	**1.0000e-005**	**9.0000e-004**	**0.0000**	**9.1000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.7131**	**0.7131**	**2.0000e-005**	**2.0000e-005**	**0.7195**

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	0.4902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.4912**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	3.0000e-004	2.0000e-004	2.6200e-003	1.0000e-005	9.0000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7131	0.7131	2.0000e-005	2.0000e-005	0.7195
Total	**3.0000e-004**	**2.0000e-004**	**2.6200e-003**	**1.0000e-005**	**9.0000e-004**	**0.0000**	**9.1000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.7131**	**0.7131**	**2.0000e-005**	**2.0000e-005**	**0.7195**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2146	1.6056	10.3109	0.0192	1.8926	0.0176	1.9102	0.5070	0.0165	0.5235	0.0000	1,803.0820	1,803.0820	0.1297	0.1030	1,837.0035
Unmitigated	1.2146	1.6056	10.3109	0.0192	1.8926	0.0176	1.9102	0.5070	0.0165	0.5235	0.0000	1,803.0820	1,803.0820	0.1297	0.1030	1,837.0035

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	430.3666	430.3666	0.0301	3.6500e-003	432.2058
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	430.3666	430.3666	0.0301	3.6500e-003	432.2058
NaturalGas Mitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
NaturalGas Unmitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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
Medical Office Building	1.63e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
Total		**8.7900e-003**	**0.0799**	**0.0671**	**4.8000e-004**		**6.0700e-003**	**6.0700e-003**		**6.0700e-003**	**6.0700e-003**	**0.0000**	**86.9830**	**86.9830**	**1.6700e-003**	**1.5900e-003**	**87.4999**

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					
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
Medical Office Building	1.63e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
Total		**8.7900e-003**	**0.0799**	**0.0671**	**4.8000e-004**		**6.0700e-003**	**6.0700e-003**		**6.0700e-003**	**6.0700e-003**	**0.0000**	**86.9830**	**86.9830**	**1.6700e-003**	**1.5900e-003**	**87.4999**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.04425e+006	223.5590	0.0156	1.8900e-003	224.5144
Medical Office Building	966000	206.8076	0.0145	1.7500e-003	207.6914
Total		**430.3666**	**0.0301**	**3.6400e-003**	**432.2058**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.04425e+006	223.5590	0.0156	1.8900e-003	224.5144
Medical Office Building	966000	206.8076	0.0145	1.7500e-003	207.6914
Total		**430.3666**	**0.0301**	**3.6400e-003**	**432.2058**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	0.4521	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Unmitigated	0.4521	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003

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	0.0490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Total	**0.4521**	**1.0000e-005**	**9.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.8000e-003**	**1.8000e-003**	**0.0000**	**0.0000**	**1.9200e-003**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Total	**0.4521**	**1.0000e-005**	**9.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.8000e-003**	**1.8000e-003**	**0.0000**	**0.0000**	**1.9200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.3078	0.4100	9.7900e-003	33.4766
Unmitigated	20.3078	0.4100	9.7900e-003	33.4766

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	12.5481 / 2.39011	20.3078	0.4100	9.7900e-003	33.4766
Total		**20.3078**	**0.4100**	**9.7900e-003**	**33.4766**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	12.5481 / 2.39011	20.3078	0.4100	9.7900e-003	33.4766
Total		**20.3078**	**0.4100**	**9.7900e-003**	**33.4766**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	219.2302	12.9561	0.0000	543.1336
Unmitigated	219.2302	12.9561	0.0000	543.1336

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Total		**219.2302**	**12.9561**	**0.0000**	**543.1336**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Total		**219.2302**	**12.9561**	**0.0000**	**543.1336**

9.0 Operational Offroad

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sutter Parking Garage Expansion & MOB 10

Placer-Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.64	100,000.00	0
Enclosed Parking with Elevator	1.00	1000sqft	0.94	191,957.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/ND's model.

Land Use - See SWAPE comment on "Underestimated Land Use Size"

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,000.00	191,957.00
tblLandUse	LotAcreage	2.30	1.64
tblLandUse	LotAcreage	0.02	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.3035	17.2564	18.2093	0.0435	7.1647	0.8384	7.9074	3.4465	0.7834	4.1298	0.0000	4,213.1239	4,213.1239	0.7698	0.1818	4,279.0322
2023	98.2973	15.9070	17.7852	0.0429	1.2535	0.6314	1.8849	0.3399	0.6049	0.9447	0.0000	4,154.7007	4,154.7007	0.5447	0.1748	4,218.2088
Maximum	**98.2973**	**17.2564**	**18.2093**	**0.0435**	**7.1647**	**0.8384**	**7.9074**	**3.4465**	**0.7834**	**4.1298**	**0.0000**	**4,213.1239**	**4,213.1239**	**0.7698**	**0.1818**	**4,279.0322**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.3035	17.2564	18.2093	0.0435	7.1647	0.8384	7.9074	3.4465	0.7834	4.1298	0.0000	4,213.1239	4,213.1239	0.7698	0.1818	4,279.0322
2023	98.2973	15.9070	17.7852	0.0429	1.2535	0.6314	1.8849	0.3399	0.6049	0.9447	0.0000	4,154.7007	4,154.7007	0.5447	0.1748	4,218.2088
Maximum	**98.2973**	**17.2564**	**18.2093**	**0.0435**	**7.1647**	**0.8384**	**7.9074**	**3.4465**	**0.7834**	**4.1298**	**0.0000**	**4,213.1239**	**4,213.1239**	**0.7698**	**0.1818**	**4,279.0322**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	10.6656	10.7165	75.3683	0.1484	14.3949	0.1280	14.5229	3.8422	0.1201	3.9623		15,337.5469	15,337.5469	0.9500	0.7871	15,595.8454
Total	**13.1913**	**11.1544**	**75.7464**	**0.1510**	**14.3949**	**0.1613**	**14.5562**	**3.8422**	**0.1534**	**3.9956**		**15,862.9518**	**15,862.9518**	**0.9601**	**0.7967**	**16,124.3738**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	10.6656	10.7165	75.3683	0.1484	14.3949	0.1280	14.5229	3.8422	0.1201	3.9623		15,337.5469	15,337.5469	0.9500	0.7871	15,595.8454
Total	**13.1913**	**11.1544**	**75.7464**	**0.1510**	**14.3949**	**0.1613**	**14.5562**	**3.8422**	**0.1534**	**3.9956**		**15,862.9518**	**15,862.9518**	**0.9601**	**0.7967**	**16,124.3738**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/23/2022	4/19/2022	5	20	
2	Site Preparation	Site Preparation	4/20/2022	4/22/2022	5	3	
3	Grading	Grading	4/23/2022	5/2/2022	5	6	
4	Building Construction	Building Construction	5/3/2022	3/6/2023	5	220	
5	Paving	Paving	3/7/2023	3/20/2023	5	10	
6	Architectural Coating	Architectural Coating	3/21/2023	4/3/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,517 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0411	0.0224	0.3567	9.7000e-004	0.1068	5.4000e-004	0.1073	0.0283	5.0000e-004	0.0288		99.0622	99.0622	2.6400e-003	2.4300e-003	99.8520
Total	**0.0411**	**0.0224**	**0.3567**	**9.7000e-004**	**0.1068**	**5.4000e-004**	**0.1073**	**0.0283**	**5.0000e-004**	**0.0288**		**99.0622**	**99.0622**	**2.6400e-003**	**2.4300e-003**	**99.8520**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0411	0.0224	0.3567	9.7000e-004	0.1068	5.4000e-004	0.1073	0.0283	5.0000e-004	0.0288		99.0622	99.0622	2.6400e-003	2.4300e-003	99.8520
Total	**0.0411**	**0.0224**	**0.3567**	**9.7000e-004**	**0.1068**	**5.4000e-004**	**0.1073**	**0.0283**	**5.0000e-004**	**0.0288**		**99.0622**	**99.0622**	**2.6400e-003**	**2.4300e-003**	**99.8520**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2195	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.9614	60.9614	1.6200e-003	1.4900e-003	61.4474
Total	**0.0253**	**0.0138**	**0.2195**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.9614**	**60.9614**	**1.6200e-003**	**1.4900e-003**	**61.4474**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2195	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.9614	60.9614	1.6200e-003	1.4900e-003	61.4474
Total	**0.0253**	**0.0138**	**0.2195**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.9614**	**60.9614**	**1.6200e-003**	**1.4900e-003**	**61.4474**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2744	7.5000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		76.2017	76.2017	2.0300e-003	1.8700e-003	76.8092
Total	**0.0316**	**0.0173**	**0.2744**	**7.5000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**76.2017**	**76.2017**	**2.0300e-003**	**1.8700e-003**	**76.8092**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2744	7.5000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		76.2017	76.2017	2.0300e-003	1.8700e-003	76.8092
Total	**0.0316**	**0.0173**	**0.2744**	**7.5000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**76.2017**	**76.2017**	**2.0300e-003**	**1.8700e-003**	**76.8092**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0912	2.4574	0.7559	0.0101	0.3253	0.0236	0.3489	0.0937	0.0226	0.1162		1,062.7634	1,062.7634	4.6300e-003	0.1607	1,110.7651
Worker	0.3568	0.1950	3.1002	8.4600e-003	0.9283	4.6900e-003	0.9330	0.2462	4.3200e-003	0.2505		861.0793	861.0793	0.0229	0.0211	867.9441
Total	**0.4480**	**2.6524**	**3.8560**	**0.0185**	**1.2535**	**0.0283**	**1.2818**	**0.3399**	**0.0269**	**0.3668**		**1,923.8426**	**1,923.8426**	**0.0276**	**0.1818**	**1,978.7092**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0912	2.4574	0.7559	0.0101	0.3253	0.0236	0.3489	0.0937	0.0226	0.1162		1,062.7634	1,062.7634	4.6300e-003	0.1607	1,110.7651
Worker	0.3568	0.1950	3.1002	8.4600e-003	0.9283	4.6900e-003	0.9330	0.2462	4.3200e-003	0.2505		861.0793	861.0793	0.0229	0.0211	867.9441
Total	**0.4480**	**2.6524**	**3.8560**	**0.0185**	**1.2535**	**0.0283**	**1.2818**	**0.3399**	**0.0269**	**0.3668**		**1,923.8426**	**1,923.8426**	**0.0276**	**0.1818**	**1,978.7092**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.1098	0.6915	9.7200e-003	0.3253	0.0133	0.3386	0.0937	0.0127	0.1064		1,026.5894	1,026.5894	3.0100e-003	0.1552	1,072.8997
Worker	0.3316	0.1733	2.8792	8.1900e-003	0.9283	4.4500e-003	0.9327	0.2462	4.1000e-003	0.2503		838.5880	838.5880	0.0208	0.0197	844.9612
Total	**0.3887**	**2.2830**	**3.5707**	**0.0179**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0168**	**0.3567**		**1,865.1774**	**1,865.1774**	**0.0238**	**0.1748**	**1,917.8609**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.1098	0.6915	9.7200e-003	0.3253	0.0133	0.3386	0.0937	0.0127	0.1064		1,026.5894	1,026.5894	3.0100e-003	0.1552	1,072.8997
Worker	0.3316	0.1733	2.8792	8.1900e-003	0.9283	4.4500e-003	0.9327	0.2462	4.1000e-003	0.2503		838.5880	838.5880	0.0208	0.0197	844.9612
Total	**0.3887**	**2.2830**	**3.5707**	**0.0179**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0168**	**0.3567**		**1,865.1774**	**1,865.1774**	**0.0238**	**0.1748**	**1,917.8609**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0440	0.0230	0.3822	1.0900e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		111.3170	111.3170	2.7500e-003	2.6100e-003	112.1630
Total	**0.0440**	**0.0230**	**0.3822**	**1.0900e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**111.3170**	**111.3170**	**2.7500e-003**	**2.6100e-003**	**112.1630**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0440	0.0230	0.3822	1.0900e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		111.3170	111.3170	2.7500e-003	2.6100e-003	112.1630
Total	**0.0440**	**0.0230**	**0.3822**	**1.0900e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**111.3170**	**111.3170**	**2.7500e-003**	**2.6100e-003**	**112.1630**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	98.0381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**98.2298**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0675	0.0353	0.5860	1.6700e-003	0.1889	9.1000e-004	0.1899	0.0501	8.3000e-004	0.0510		170.6861	170.6861	4.2200e-003	4.0000e-003	171.9833
Total	**0.0675**	**0.0353**	**0.5860**	**1.6700e-003**	**0.1889**	**9.1000e-004**	**0.1899**	**0.0501**	**8.3000e-004**	**0.0510**		**170.6861**	**170.6861**	**4.2200e-003**	**4.0000e-003**	**171.9833**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	98.0381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**98.2298**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0675	0.0353	0.5860	1.6700e-003	0.1889	9.1000e-004	0.1899	0.0501	8.3000e-004	0.0510		170.6861	170.6861	4.2200e-003	4.0000e-003	171.9833
Total	**0.0675**	**0.0353**	**0.5860**	**1.6700e-003**	**0.1889**	**9.1000e-004**	**0.1899**	**0.0501**	**8.3000e-004**	**0.0510**		**170.6861**	**170.6861**	**4.2200e-003**	**4.0000e-003**	**171.9833**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.6656	10.7165	75.3683	0.1484	14.3949	0.1280	14.5229	3.8422	0.1201	3.9623		15,337.5469	15,337.5469	0.9500	0.7871	15,595.8454
Unmitigated	10.6656	10.7165	75.3683	0.1484	14.3949	0.1280	14.5229	3.8422	0.1201	3.9623		15,337.5469	15,337.5469	0.9500	0.7871	15,595.8454

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
NaturalGas Unmitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4465.75	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4.46575	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

6.0 Area Detail

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Unmitigated	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Total	**2.4775**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0221**	**0.0221**	**6.0000e-005**		**0.0236**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Total	**2.4775**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0221**	**0.0221**	**6.0000e-005**		**0.0236**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sutter Parking Garage Expansion & MOB 10

Placer-Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.64	100,000.00	0
Enclosed Parking with Elevator	1.00	1000sqft	0.94	191,957.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/ND's model.

Land Use - See SWAPE comment on "Underestimated Land Use Size"

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,000.00	191,957.00
tblLandUse	LotAcreage	2.30	1.64
tblLandUse	LotAcreage	0.02	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2748	17.4815	17.9573	0.0427	7.1647	0.8384	7.9074	3.4465	0.7834	4.1298	0.0000	4,129.1289	4,129.1289	0.7701	0.1855	4,196.2243
2023	98.2926	16.1083	17.5568	0.0422	1.2535	0.6314	1.8850	0.3399	0.6049	0.9448	0.0000	4,074.1591	4,074.1591	0.5452	0.1784	4,138.8161
Maximum	**98.2926**	**17.4815**	**17.9573**	**0.0427**	**7.1647**	**0.8384**	**7.9074**	**3.4465**	**0.7834**	**4.1298**	**0.0000**	**4,129.1289**	**4,129.1289**	**0.7701**	**0.1855**	**4,196.2243**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2748	17.4815	17.9573	0.0427	7.1647	0.8384	7.9074	3.4465	0.7834	4.1298	0.0000	4,129.1289	4,129.1289	0.7701	0.1855	4,196.2243
2023	98.2926	16.1083	17.5568	0.0422	1.2535	0.6314	1.8850	0.3399	0.6049	0.9448	0.0000	4,074.1591	4,074.1591	0.5452	0.1784	4,138.8161
Maximum	**98.2926**	**17.4815**	**17.9573**	**0.0427**	**7.1647**	**0.8384**	**7.9074**	**3.4465**	**0.7834**	**4.1298**	**0.0000**	**4,129.1289**	**4,129.1289**	**0.7701**	**0.1855**	**4,196.2243**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	8.6062	12.3269	80.7797	0.1380	14.3949	0.1281	14.5230	3.8422	0.1202	3.9624		14,268.4204	14,268.4204	1.1285	0.8600	14,552.8974
Total	**11.1319**	**12.7648**	**81.1578**	**0.1407**	**14.3949**	**0.1614**	**14.5563**	**3.8422**	**0.1535**	**3.9957**		**14,793.8253**	**14,793.8253**	**1.1386**	**0.8696**	**15,081.4258**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	8.6062	12.3269	80.7797	0.1380	14.3949	0.1281	14.5230	3.8422	0.1202	3.9624		14,268.4204	14,268.4204	1.1285	0.8600	14,552.8974
Total	**11.1319**	**12.7648**	**81.1578**	**0.1407**	**14.3949**	**0.1614**	**14.5563**	**3.8422**	**0.1535**	**3.9957**		**14,793.8253**	**14,793.8253**	**1.1386**	**0.8696**	**15,081.4258**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/23/2022	4/19/2022	5	20	
2	Site Preparation	Site Preparation	4/20/2022	4/22/2022	5	3	
3	Grading	Grading	4/23/2022	5/2/2022	5	6	
4	Building Construction	Building Construction	5/3/2022	3/6/2023	5	220	
5	Paving	Paving	3/7/2023	3/20/2023	5	10	
6	Architectural Coating	Architectural Coating	3/21/2023	4/3/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,517 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0381	0.0280	0.3242	8.8000e-004	0.1068	5.4000e-004	0.1073	0.0283	5.0000e-004	0.0288		89.2573	89.2573	3.0900e-003	2.8100e-003	90.1730
Total	**0.0381**	**0.0280**	**0.3242**	**8.8000e-004**	**0.1068**	**5.4000e-004**	**0.1073**	**0.0283**	**5.0000e-004**	**0.0288**		**89.2573**	**89.2573**	**3.0900e-003**	**2.8100e-003**	**90.1730**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0381	0.0280	0.3242	8.8000e-004	0.1068	5.4000e-004	0.1073	0.0283	5.0000e-004	0.0288		89.2573	89.2573	3.0900e-003	2.8100e-003	90.1730
Total	**0.0381**	**0.0280**	**0.3242**	**8.8000e-004**	**0.1068**	**5.4000e-004**	**0.1073**	**0.0283**	**5.0000e-004**	**0.0288**		**89.2573**	**89.2573**	**3.0900e-003**	**2.8100e-003**	**90.1730**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1995	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.9275	54.9275	1.9000e-003	1.7300e-003	55.4911
Total	**0.0235**	**0.0172**	**0.1995**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.9275**	**54.9275**	**1.9000e-003**	**1.7300e-003**	**55.4911**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1995	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.9275	54.9275	1.9000e-003	1.7300e-003	55.4911
Total	**0.0235**	**0.0172**	**0.1995**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.9275**	**54.9275**	**1.9000e-003**	**1.7300e-003**	**55.4911**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2494	6.7000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.6594	68.6594	2.3800e-003	2.1600e-003	69.3639
Total	**0.0293**	**0.0215**	**0.2494**	**6.7000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**68.6594**	**68.6594**	**2.3800e-003**	**2.1600e-003**	**69.3639**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2494	6.7000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.6594	68.6594	2.3800e-003	2.1600e-003	69.3639
Total	**0.0293**	**0.0215**	**0.2494**	**6.7000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**68.6594**	**68.6594**	**2.3800e-003**	**2.1600e-003**	**69.3639**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0878	2.6341	0.7860	0.0101	0.3253	0.0237	0.3490	0.0937	0.0227	0.1163		1,063.9961	1,063.9961	4.4800e-003	0.1610	1,112.0899
Worker	0.3315	0.2434	2.8181	7.6300e-003	0.9283	4.6900e-003	0.9330	0.2462	4.3200e-003	0.2505		775.8515	775.8515	0.0269	0.0245	783.8115
Total	**0.4193**	**2.8775**	**3.6041**	**0.0177**	**1.2535**	**0.0284**	**1.2819**	**0.3399**	**0.0270**	**0.3669**		**1,839.8477**	**1,839.8477**	**0.0313**	**0.1855**	**1,895.9014**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0878	2.6341	0.7860	0.0101	0.3253	0.0237	0.3490	0.0937	0.0227	0.1163		1,063.9961	1,063.9961	4.4800e-003	0.1610	1,112.0899
Worker	0.3315	0.2434	2.8181	7.6300e-003	0.9283	4.6900e-003	0.9330	0.2462	4.3200e-003	0.2505		775.8515	775.8515	0.0269	0.0245	783.8115
Total	**0.4193**	**2.8775**	**3.6041**	**0.0177**	**1.2535**	**0.0284**	**1.2819**	**0.3399**	**0.0270**	**0.3669**		**1,839.8477**	**1,839.8477**	**0.0313**	**0.1855**	**1,895.9014**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0531	2.2683	0.7168	9.7400e-003	0.3253	0.0134	0.3386	0.0937	0.0128	0.1064		1,028.8526	1,028.8526	2.8200e-003	0.1556	1,075.2982
Worker	0.3085	0.2161	2.6255	7.3800e-003	0.9283	4.4500e-003	0.9327	0.2462	4.1000e-003	0.2503		755.7832	755.7832	0.0244	0.0227	763.1700
Total	**0.3616**	**2.4844**	**3.3423**	**0.0171**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0169**	**0.3568**		**1,784.6358**	**1,784.6358**	**0.0272**	**0.1784**	**1,838.4683**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0531	2.2683	0.7168	9.7400e-003	0.3253	0.0134	0.3386	0.0937	0.0128	0.1064		1,028.8526	1,028.8526	2.8200e-003	0.1556	1,075.2982
Worker	0.3085	0.2161	2.6255	7.3800e-003	0.9283	4.4500e-003	0.9327	0.2462	4.1000e-003	0.2503		755.7832	755.7832	0.0244	0.0227	763.1700
Total	**0.3616**	**2.4844**	**3.3423**	**0.0171**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0169**	**0.3568**		**1,784.6358**	**1,784.6358**	**0.0272**	**0.1784**	**1,838.4683**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0287	0.3485	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		100.3252	100.3252	3.2400e-003	3.0200e-003	101.3058
Total	**0.0410**	**0.0287**	**0.3485**	**9.8000e-004**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**100.3252**	**100.3252**	**3.2400e-003**	**3.0200e-003**	**101.3058**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0287	0.3485	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		100.3252	100.3252	3.2400e-003	3.0200e-003	101.3058
Total	**0.0410**	**0.0287**	**0.3485**	**9.8000e-004**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**100.3252**	**100.3252**	**3.2400e-003**	**3.0200e-003**	**101.3058**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	98.0381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**98.2298**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0440	0.5344	1.5000e-003	0.1889	9.1000e-004	0.1899	0.0501	8.3000e-004	0.0510		153.8320	153.8320	4.9700e-003	4.6300e-003	155.3355
Total	**0.0628**	**0.0440**	**0.5344**	**1.5000e-003**	**0.1889**	**9.1000e-004**	**0.1899**	**0.0501**	**8.3000e-004**	**0.0510**		**153.8320**	**153.8320**	**4.9700e-003**	**4.6300e-003**	**155.3355**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	98.0381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**98.2298**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0440	0.5344	1.5000e-003	0.1889	9.1000e-004	0.1899	0.0501	8.3000e-004	0.0510		153.8320	153.8320	4.9700e-003	4.6300e-003	155.3355
Total	**0.0628**	**0.0440**	**0.5344**	**1.5000e-003**	**0.1889**	**9.1000e-004**	**0.1899**	**0.0501**	**8.3000e-004**	**0.0510**		**153.8320**	**153.8320**	**4.9700e-003**	**4.6300e-003**	**155.3355**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.6062	12.3269	80.7797	0.1380	14.3949	0.1281	14.5230	3.8422	0.1202	3.9624		14,268.4204	14,268.4204	1.1285	0.8600	14,552.8974
Unmitigated	8.6062	12.3269	80.7797	0.1380	14.3949	0.1281	14.5230	3.8422	0.1202	3.9624		14,268.4204	14,268.4204	1.1285	0.8600	14,552.8974

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
NaturalGas Unmitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4465.75	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4.46575	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Unmitigated	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Total	**2.4775**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0221**	**0.0221**	**6.0000e-005**		**0.0236**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Total	**2.4775**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0221**	**0.0221**	**6.0000e-005**		**0.0236**

7.0 Water Detail

7.1 Mitigation Measures Water

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT – PLANNING DIVISION
311 Vernon Street, Roseville, CA 95678 (916) 774-5276

MEMORANDUM

To: Planning Commission

From: Escarlet Mar, Associate Planner

Date: May 12, 2022

Re: NERSP PCL 25 – Sutter Parking Garage Expansion – Response to Comments, File #PL22-0024

Planning staff received a letter from Lozeau Drury on May 11, 2022 challenging the determination that an Initial Study which led to a Negative Declaration was not the appropriate environmental document for the NERSP PCL 25 – Sutter Parking Garage Expansion project at 12 Medical Plaza. The following memorandum discusses the major points presented in the Lozeau Drury letter and staff's response. The letter is included as Attachment 1 of this Memorandum.

Assertion: The proposed Conditions of Approval contained an environmental mitigation measure that was not discussed or incorporated in the Negative Declaration of the Project.

Response: The commenter references proposed Condition of Approval 3 from the Planning Commission staff report, and alleges that if the project must comply with mitigation from the Mitigated Negative Declaration prepared for Medical Office Building 6 (MOB 6), then a Negative Declaration for the proposed project is incorrect. However, the Mitigated Negative Declaration for MOB 6 is inapplicable to the proposed project, and this condition of approval was included in the staff report as an error, resulting from using the MOB 6 conditions as a template to begin developing appropriate conditions for the proposed project. Therefore, staff proposes to remove condition of approval #3 from the Design Review Permit as shown in ~~strikeout~~ text below.

3. ~~The project shall comply with all required environmental mitigation identified in Sutter Roseville MOB 6 and Parking Garage Mitigated Negative Declaration, and shall include all applicable mitigation measures as notes on the grading plans. (All Departments)~~

Assertion: The Project may have potentially significant indoor air quality impacts from emissions of formaldehyde.

Response: The commenter alleges that the analysis of air quality is flawed because there is no discussion of formaldehyde impacts related to indoor air quality. To support this the letter supplies comments from a Certified Industrial Hygienist. The letter asserts that people in the building will be exposed to high levels of off-gassed formaldehyde from the decomposition of composite wood products used to construct buildings, and that this will result in a cancer risk for employees of 17.7 per million. The commenter alleges that its expert, Mr. Offermann, has determined that the Project's indoor emissions of formaldehyde constitute a significant CEQA impact, even if it uses typical materials and construction methods which meet the California Air

Resources Board (CARB) formaldehyde airborne toxics control measure. Mr. Offermann cites his own 2009 study (the California New Home Study) and a 2020 study (Indoor Air Quality in new California Homes with Mechanical Ventilation by Singer et al) in arriving at his estimated cancer risk value.

These studies are not applicable to the proposed project for several reasons. The homes in the cited studies were constructed prior to many current mandatory regulations which reduce formaldehyde in construction materials. These include the following:

- Effective February 10, 2017 the Federal Environmental Protection Agency (EPA) final rule to reduce exposure to formaldehyde emissions from certain wood products produced domestically or imported into the United States became effective. EPA worked with CARB to help ensure the final national rule was consistent with California's requirements for similar composite wood products.

- The Composite Wood Products Regulation is a California Air Resources Board (CARB) regulation that reduces public exposure to formaldehyde through the establishment of strict emission performance standards on particleboard, medium density fiberboard and hardwood plywood (collectively known as composite wood products). The regulation requires all finished goods, such as flooring, destined for sale or use in California to be made using complying composite wood products. The most stringent (Phase 2) standards became effective in January 2014, ensuring that only compliant products are legal for sale in California. Moreover, the state's Title 24 Building Code improves indoor air quality through ventilation and air filtration requirements, which became more stringent with the adoption of the current 2019 Title 24 Building Code.

While the second study cited by Mr. Offermann was published in 2020, it assessed homes built in 2011 to 2017, which covers the period before the newest CARB formaldehyde standards (Phase 2 standards) were put into place (2014), before the EPA final rule, and before the 2019 Building Code. Thus, these studies do not provide evidence that the project, which will be built in phases beginning in 2022, will have significant impacts from formaldehyde emissions. In addition, both studies cited by Mr. Offermann was based on residential construction and residential grade mechanical ventilation, not based on the enhanced ventilation systems used by hospitals and other medical facilities. For these reasons, the project can be distinguished from the homes studied in the cited studies.

Mr. Offermann's claim that the project would result in significant impacts is speculative, based on assumptions about project construction and materials, regarding health risk modeling of formaldehyde, regarding the applicability of residential ventilation systems to medical office systems, and regarding application of a significance threshold that is not specific to formaldehyde.

Assertion: The Project did not adequately analyze and mitigate noise impacts.

Response: The commenter makes several claims related to noise: the prior environmental documents referenced in the Initial Study are not available for review, the Initial Study does not establish thresholds of significance, the Initial Study does not adequately address noise from mechanical equipment, and the Initial Study does not adequately address construction noise. The commenter relies on information provided by Ms. Deborah Jue of Wilson Ihrig Acoustics, Noise, and Vibration to support these claims.

The General Plan Final EIR and the Northeast Roseville Specific Plan EIR are both available on the City's website. The Sutter Roseville Medical Center Master Plan EIR is available for review in hard copy. Thus, all three referenced environmental documents are available for review.

As described on Initial Study page 33, the City's noise thresholds used for environmental analysis are established within the General Plan Noise Element and the City's Noise Ordinance. The Initial Study states that the Noise Ordinance standards are used to regulate non-transportation (also known as fixed) noise sources, and that compliance with these standards ensures less than significant impacts. Thus, Ms. Jue is not correct that the Initial Study does not discuss or disclose the City's noise thresholds.

Ms. Jue alleges that mechanical equipment could result in substantial noise (citing the City's noise thresholds to do so) affecting sensitive receptors at the nearest residential building, described as being 120 feet away. However, the existing Sutter Medical Office Building 4 is located just 45 feet away from apartment buildings in this same apartment complex, includes the same mechanical equipment as the proposed project, and yet existing conditions do not violate the City's noise thresholds or standards. It can be seen with certainty that the project does not have the potential to result in significant noise impacts related to mechanical equipment. The analysis Ms. Jue provides is speculative, as it makes assumptions about the type of equipment that will be used and the manner in which it will be used, and also does not take into account any of the screening or noise attenuation provided by the masonry wall, standard exterior-to-interior noise reductions, or equipment cabinets or screening.

As discussed in the Initial Study on page 34, construction noise is regulated by the City of Roseville Noise Ordinance. The Ordinance requires construction noise be limited to daytime hours, in order to prevent noise during typical sleeping or rest hours, and that equipment noise be minimized. The City's adopted CEQA Implementing Procedures findings indicate that compliance with the City Noise Ordinance is sufficient to protect nearby sensitive receptors from the negative health effects from construction noise. There are no unique characteristics of the project that would result in construction noise which is greater than typical construction. Time-of-day restrictions are typical of City and County noise ordinances and reflect the recognition that construction-related noise is temporary in character, is generally acceptable when limited to daytime hours, and is part of what residents of urban areas expect as part of a typical urban noise environment (along with sirens, etc.).

Assertion: The Project did not appropriately analyze the air quality impacts from emissions of ROGs.

Response: The commenter retained a consulting firm, SWAPE Technical Consultation, Data Analysis and Litigation Support of the Environment to review the air quality modeling for the project. SWAPE evaluated the City's analysis and prepared its own California Emissions Estimator Model (CalEEMod). The analysis by SWAPE did find a size error in the model, but their amended model also contains incorrect data, such as an incorrect size for the parking structure. The City corrected its model to determine whether impacts would remain below the significance thresholds (Attachment 2). The model adjustments ensured the project was accurately described, as follows: a medical office building of 100,000 square feet involving 1.59 acres of land area and a 191,957 (rounded to 192,000) square-foot enclosed parking structure with an elevator involving 0.94 acres of land area. Two model defaults were changed (and are documented in the model outputs), including adjusting the model's default assumptions about

the site acreage to match the actual acreage and adjusting the building construction and finishes timelines because the medical office building will be constructed in two phases (an approximately 85,000 square-foot building followed by an approximately 15,000 square-foot addition at a later date, as described in the Project Description on Initial Study page 1). The corrected model continues to result in less than significant construction impacts: 68 lbs/day of ROG, 25 lbs/day of NO_x, and 7.9 lbs/day of PM_{10}. The model outputs are included as Attachment 1 of this memorandum.

Although the commenter alleges the City did not calculate operational emissions, this is not correct. While the project is below the screening threshold as reported within the Initial Study, the CalEEMod results attached to the Initial Study as Attachment 3 includes operational emissions. The modeling results attached to the Initial Study as well as the corrected model results both show that emissions are below thresholds, validating the screening determination.

Assertion: The Project did not appropriately analyze the greenhouse gas (GHG) impacts. (Note: There was no section V in the letter)

Response: The commenter asserts the City improperly relied on the General Plan Update EIR to conclude that impacts would be less than significant. While the commenter states that the City merely stated that the impacts were less than significant because of compliance with General Plan policies, this is not an accurate representation of the analysis. As stated on Initial Study page 26, the vehicle trips and vehicle miles traveled (VMT) resulting from full buildout of the Sutter Hospital campus was evaluated as part of the citywide analysis prepared for the General Plan Update EIR. Similarly, full buildout of the Sutter Hospital campus was evaluated as part of the citywide buildout analysis of non-mobile greenhouse gas emissions. Thus, emissions from the project are not a new, project-specific impact requiring analysis, and per the tiering provisions of CEQA additional environmental analysis is not required. It is explicitly stated in the General Plan Update EIR that the EIR will be used by future projects for this tiering.

Assertion: The Project did not consider renewal energy alternatives.

Response: The commenter alleges the Initial Study had an obligation to evaluate whether any renewable energy features could be incorporated into the project. There is no such obligation; instead, CEQA requires an analysis of whether a project would result in “inefficient, wasteful, and unnecessary consumption of energy” *as part of an EIR*. This could certainly include assessment of the applicability of renewable energy features, as it did in the court case cited by the commenter, but since this is not an EIR it is a moot point. The relevant section is Public Resources Code §21100(b)(3), which states “The environmental impact report shall include a detailed statement setting forth all of the following,” after which is listed the requirement to assess the wasteful use of energy. The cited court case also relied heavily on CEQA Guidelines Section 15126.2, which is part of Article 9 Contents of Environmental Impact Reports.

In conclusion, staff finds that the Initial Study/Negative Declaration remains the appropriate document to comply with CEQA. No new or substantially more severe impacts have been identified which would necessitate the preparation of a subsequent or supplemental EIR.

Attachments

1. Lozeau Drury LLP letter, Received via email on May 11, 2022
2. Revised CalEEMod Report

ATTACHMENT 1

LOZEAU DRURY LLP
T 510.836.4200
F 510.836.4205
1939 Harrison Street, Ste. 150
Oakland, CA 94612
www.lozeaudrury.com
brian@lozeaudrury.com

VIA EMAIL ONLY

May 11, 2022

Robert Jense, Chair
Jonathan Martin, Vice Chair
Erich Brashears
Justin Caporusso
Tracy Covington
Clifford Haggenjos, Jr.
John Prior
Planning Commission
City of Roseville
311 Vernon Street
Roseville, CA 95678
planningdivision@roseville.ca.us

Escarlet Mar, Associate Planner
Planning Division
City of Roseville
311 Vernon Street
Roseville, CA 95678
emar@roseville.ca.us

Re: Sutter Parking Garage Expansion and Medical Office Building 7
Negative Declaration (File Nos. PL22-0024, PL22-0061)
Planning Commission Agenda Item 6.2 (May 12, 2022)

Dear Chair Jense, Vice Chair Martin, Honorable Planning Commissioners, and Ms. Mar,

I am writing on behalf of the Laborers International Union of North America, Local Union 185 and its members ("LIUNA") living in and around the City of Roseville ("City") regarding the Negative Declaration ("ND") prepared for the Sutter Parking Garage Expansion and Medical Office Building 7 Project ("Project") (File Nos. PL22-0024, PL22-0061) to be heard as Agenda Item 6.2 at the Planning Commission's May 12, 2022 meeting.

LIUNA's review of the ND was assisted by indoor air quality expert Francis Offermann, PE, CIH, noise expert Deborah Jue of Wildon Ihrig, and air quality experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., of the Soil/Water/Air Protection Enterprise ("SWAPE"). The written comments of Mr. Offermann, Ms. Jue, and SWAPE are attached hereto as Exhibit A, Exhibit B and Exhibit C, respectively. Based on their review, it appears that several of the MND's conclusions are not supported by substantial evidence and, moreover, there is a "fair argument" that the Project may have unmitigated adverse environmental impacts. As required by CEQA, LIUNA requests that the City prepare an environmental impact report ("EIR") rather than a ND prior to approving the Project.

PROJECT DESCRIPTION

The Project consists of two components: (1) the expansion of an existing five-story parking garage with a six-story parking addition ("Garage Expansion") and (2) a new medical office building ("MOB"). Both components are located within the existing 49-acre Sutter Roseville Medical Center campus, specifically on the northeastern area of the campus. The Garage Expansion is proposed to be located immediately to the east of the existing five-story parking garage and be connected to the future parking garage at each level. The MOB would be located along the east edge of the campus, north of the existing five-story parking garage and east of the existing MOB4.

The Garage Expansion site is approximately 0.94 acres in size and contains an existing surface parking lot with lighting and landscaping. The MOB site is approximately 1.64 acres in size and is developed with surface parking, lighting, and landscaping. The MOB site is surrounded by an existing private dental clinic to the south and an apartment complex to the east. The MOB is proposed to be constructed in two-phases: Phase 1 would consists of the four-story building and Phase 2 would consist of a two-story addition on the front of the building.

LEGAL STANDARD FOR NEGATIVE DECLARATIONS

As the California Supreme Court held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." (*Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist*. (2010) 48 Cal.4th 310, 319-20.) "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." (Pub. Res. Code ["PRC"] § 21068; see also 14 CCR § 15382.) An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial." *(No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109.)

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214 (*Bakersfield Citizens*); *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." (*Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1220.) The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.) The EIR process "protects not only the environment but also informed self-government." (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 927.)

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." (PRC § 21080(d); see also *Pocket Protectors*, *supra*, 124 Cal.App.4th at 927.) In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration unless there is a "fair argument" that the project will have a significant environmental effect. (PRC, §§ 21100, 21064.) Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." (*Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.) A mitigated negative declaration is proper only if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and . . . there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (*Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331 [quoting PRC §§ 21064.5, 21080(c)(2)].) In that context, "may" means a reasonable possibility of a significant effect on the environment. (PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors*, *supra*, 124 Cal.App.4th at 927*; League for Protection of Oakland's etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-05.)

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. (14 CCR § 15064(f)(1); *Pocket Protectors*, *supra*, 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602.) The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Pocket Protector*s, *supra*, 124 Cal.App.4th at 928.)

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

(Kostka & Zishcke, Practice Under CEQA, §6.29, pp. 273-74.) The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference

to the lead agency's determination. Review is de novo, with a preference for resolving doubts in favor of environmental review." *(Pocket Protectors*, *supra*, 124 Cal.App.4th at 928.)

DISCUSSION

I. The proposed Conditions of Approval contain environmental mitigation measures that are not discussed or incorporated in the ND's analysis of the Project.

According to Staff's proposed Conditions of Approval, "The project shall comply with all required environmental mitigation identified in Sutter Roseville MOB 6 and Parking Garage Mitigated Negative Declaration." (Staff Report, p. 8.) However, there is no mention of the Sutter Roseville MOB 6 and Parking Garage Mitigated Negative Declaration ("MOB 6 MND") or its mitigation measures in the ND. The ND lists three "environmental documents relied upon" for its analysis of the Project: (1) 2035 General Plan Update Final Environmental Impact Report; (2) Northeast Roseville Specific Plan Environmental Impact Report; and (3) Sutter Roseville Medical Center Master Plan Environmental Impact Report. The ND makes no mention of mitigation measures from those environmental documents or any other environmental document, including the MOB 6 MND.

Rather than discuss mitigation measures that may be applied to the Project from other EIRs and MNDs, the ND simply concluded that every single environmental impact of the Project would be less than significant without mitigation. (See, e.g., Initial Study, pp. 13 [Air Quality], 20 [Energy], 24 [Greenhouse gases], 26 [Hazards], 33 [Noise].) If the Project requires mitigation measures from the MOB 6 MND to ensure less-than-significant impacts, then those mitigation measures must be discussed and incorporated into the ND. Because the ND does not mention the MOB 6 MND at all, the ND's conclusions are not supported by substantial evidence and it should be revised prior to further consideration of the Project.

II. An EIR is required to disclose and the Project's significant indoor air quality impacts from emissions of formaldehyde.

The ND fails to address the significant health risks posed by the Project from formaldehyde, a toxic air contaminant ("TAC"). Certified Industrial Hygienist, Francis Offermann, PE, CIH, has conducted a review of the Project, the ND, and relevant documents regarding the Project's indoor air emissions. Mr. Offermann is one of the world's leading experts on indoor air quality, in particular emissions of formaldehyde, and has published extensively on the topic. As discussed below and set forth in Mr. Offermann's comments, the Project's emissions of formaldehyde to air in the MOB will result in very significant cancer risks to future employees. Mr. Offermann's expert opinion and calculation present a "fair argument" that the Project may have significant health risk impacts as a result of these indoor air pollution emissions, which were not discussed, disclosed, or analyzed in the ND. These impacts must be addressed in an EIR. Mr. Offermann's comment and CV are attached as Exhibit A.

Formaldehyde is a known human carcinogen and listed by the State as a TAC. The Placer County Air Pollution Control District ("PCAPCD") has established a significance threshold of health risks for carcinogenic TACs of 10 in a million. (Ex. A, p. 2.) The ND fails to acknowledge the significant indoor air emissions that will result from the Project. Specifically, there is no discussion of impacts or health risks, no analysis, and no identification of mitigations for significant emissions of formaldehyde to air from the Project.

Mr. Offermann explains that many composite wood products typically used building construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential, office, and retail building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." (Ex. A, pp. 2-3.)

Mr. Offermann states that future employees of the MOB will be exposed to a cancer risk from formaldehyde of approximately 17.7 per million, even assuming that all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. (Ex. A, p. 4.) This exceeds PCAPCD's CEQA significance thresholds for airborne cancer risk of 10 per million. (*Id*.) Mr. Offermann concludes that these significant environmental impacts must be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. (*Id*. at pp. 4, 11-12.) He prescribes a methodology for estimating the Project's formaldehyde emissions in order to do a more project-specific health risk assessment. (*Id*. at pp. 5-9.). Mr. Offermann also suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. (*Id*. at pp. 11-12.) Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. (*Id*. at p. 12.) Since the ND does not analyze this impact at all, none of these or other mitigation measures have been considered.

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes substantial evidence that the project will have a significant adverse environmental impact. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. (See, e.g. *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 [County applies Air District's "published CEQA quantitative criteria" and "threshold level of cumulative significance"]; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 ["A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"].) The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 ["As the District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day] constitute substantial evidence supporting a fair argument for a significant adverse impact."].) Since expert evidence

demonstrates that the Project will exceed the PCAPCD's CEQA significance threshold, there is substantial evidence that an "unstudied, potentially significant environmental effect[]" exists. (See *Friends of Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist*. (2016) 1 Cal.5th 937, 958 [emphasis added].) As a result, the City must prepare an EIR for the Project to address this impact and identify enforceable mitigation measures.

The failure of the ND to address the Project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist*. (2015) 62 Cal.4th 369, 386 (*CBIA*). In that case, the Supreme Court expressly holds that potential adverse impacts to future users and residents from pollution generated by a proposed project must be addressed under CEQA. At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally require lead agencies to consider the environment's effects on a project. (*CBIA*, *supra*, 62 Cal.4th at 800-01.) However, to the extent a project may exacerbate existing environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. (*Id*. at 801.) In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on a project's users or residents that arise from the project's effects on the environment." (*Id*. at 800.)

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. People will be working inside the MOB once it is built and begins emitting formaldehyde. Once built, the MOB will begin to emit formaldehyde at levels that pose significant direct and cumulative health risks. The Supreme Court in *CBIA* expressly finds that this type of air emission and health impact by the project on the environment and a "project's users and residents" must be addressed in the CEQA process. The existing TAC sources near the Project site would have to be considered in evaluating the cumulative effect on future residents of both the Project's TAC emissions as well as those existing off-site emissions.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.'" (*CBIA*, *supra*, 62 Cal.4th at 800 [emphasis in original].) Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." (*Id*., citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d).) It goes without saying that the thousands of future residents at the Project are human beings and the health and safety of those residents must be subjected to CEQA's safeguards.

The City has a duty to investigate issues relating to a project's potential environmental impacts. (See *County Sanitation Dist. No. 2 v. County of Kern*, (2005) 127 Cal.App.4th 1544,

1597–98. ["[U]nder CEQA, the lead agency bears a burden to investigate potential environmental impacts."].) The proposed office buildings will have significant impacts on air quality and health risks by emitting cancer-causing levels of formaldehyde into the air that will expose future residents to cancer risks potentially in excess of PCAPCD's threshold of significance for cancer health risks of 10 in a million. Currently, outside of Mr. Offermann's comments, the City does not have any idea what risks will be posed by formaldehyde emissions from the Project or the residences. As a result, the City must include an analysis and discussion in an EIR which discloses and analyzes the health risks that the Project's formaldehyde emissions may have on future residents and identifies appropriate mitigation measures.

III. The ND inadequately analyzes and mitigates the Project's noise impacts.

Noise expert Deborah Jue of the consulting firm Wilson Ihrig reviewed the MND's analysis of the Project's noise impacts. Ms. Jue's comment letter is attached as Exhibit B. As discussed below, Ms. Jue concluded that the MND failed to properly analyze and mitigate the Project's noise impacts and, as a result, the Project may cause significant impacts.

A. The ND fails to provide any context or analysis from the Sutter Roseville Medical Center Master Plan EIR.

Although the ND claims to incorporate prior environmental documents, including the Sutter Roseville Medical Center Master Plan EIR (Initial Study, pp. 7-8), there is no discussion of the information potentially used from the prior EIRs to evaluate the Project's impacts, such as significance thresholds, impacts, and mitigation measures. (Ex. B, p. 1.) Furthermore, the prior EIRs are not all available from CEQANet or the City's website. (Id.) Without making the prior documentation available or discussing how the information contained in those EIRs applies to this Project, the ND lacks the context and analysis necessary to determine that the Project's impacts would be less than significant.

B. The ND fails to properly establish thresholds of significance for the Project's noise impacts.

The ND failed to establish and apply proper significance thresholds for the Project's noise impacts. (Ex. B, pp. 1-2.) Although the ND claims that the City's CEQA Implementing Procedures determined that compliance with the City's Noise Ordinance would be sufficient to to find that the Project's noise impacts would be less than significant, Ms. Jue notes that the City's CEQA Implementing Procedures "include[] no discussion about CEQA thresholds to use in CEQA analysis." (Ex. B, p. 2.) As such, "there is no evidence to substantiate that the noise ordinance is sufficient to determine potential significance." (Id.)

Ms. Jue suggests a number of possible significance thresholds that the City could apply to this Project's noise impacts. (Ex. B, pp. 2-3.) These thresholds include sleep disturbance (Ex. B, pp. 2-3), speech disturbance (Ex. B, p. 3), noise and vibration thresholds for construction (Ex. B, p. 3), and actual compliance with the Noise Ordinance (Ex. B, p. 3). Because the ND did not

provide any quantitative analysis of the Project's noise impacts, there is no evidence that the Project's noise levels will not exceed these thresholds or any other thresholds the City may adopt.

C. The ND's analysis of the Project's noise impacts is incomplete.

Ms. Jue notes that the ND provided incomplete analyses of the noise impacts from mechanical equipment on the roof of the MOB and from construction noise. (Ex. B, p. 3-4.)

For the mechanical equipment, "[t]he ND provides no evidence that the rooftop equipment for the MOB would comply with the Municipal code, and provides no evidence that the addition of such equipment would be less than significant at the nearest residential structure, which is only 120 ft away.) (Ex. B, p. 3.) The ND's failure to provide any substantive information about the mechanical equipment obscures a potentially significant impact. If two commercial-use air handling cooling systems are in operation, "the resulting noise level at the nearest residence would be 49 to 65 dBA, exceeding the City's daytime and nighttime noise limits. (Id.) In addition to the potentially significant impact from cooling systems, the ND also fails to discuss emergency/backup generators, which would only add to the Project's significant noise levels. (Id.) By failing to fully analyze these impacts, the ND omits potentially significant impacts and fails to provide substantial evidence that the Project's noise impacts will be less than significant without mitigation.

D. An EIR is required due to a fair argument that the Project's construction noise may result in a significant impact.

Ms. Jue calculated sample noise levels for five pieces of construction equipment: hoe ram, excavator/dozer, crane, front end loader, and pneumatic tools. (Ex. B, Table 1, p. 4.) According to her calculations of noise levels during demolition and site preparation, "noise from a hoe ram, excavator, or dozer could generate noise as high as 72 to 86 dBA Lmax at the nearest residence, with on-going noise over several hours each day ranging from 68 to 79 dBA Leq." (Ex. B, p. 4.) For construction, "the noise from a crane, front end loader or pneumatic tools would range from 67 to 77 dBA Lmax, with on-going noise levels of 63 to 74 dBA Leq. (Id.) Her calculations assumed that the equipment was not being used at the same time. If equipment use of different types overlapped, the noise impact would be even greater. According to Ms. Jue, these exterior noise levels would all cause speech interference at interior locations based on guidance from the World Health Organization. Due to Ms. Jue's a fair argument that the Project may result in significant noise impacts, the ND is inappropriate and an EIR must be prepared.

E. The ND fails to adequately mitigate the Project's noise impacts.

As noted above, the Project's mechanical equipment and construction noise/vibrations could result in significant impacts to the nearby residences and offices. Ms. Jue suggests several mitigation measures to address these impacts, including (1) selection, siting and/or screening of the mechanical equipment, (2) sound barrier or blankets for construction noise, and (3) buffer

distances for noisy activities and stationary equipment. (Ex. B, p. 4.) The City should revise the ND to fully analyze the Project's noise impacts and apply the abov mitigation measures (or others) as appropriate.

IV. An EIR is Required to Disclose and Mitigate the Project's Significant Air Quality Impacts from Emissions of ROGs.

A. The MND's analysis of the Project's air quality impacts is not supported by substantial evidence.

SWAPE found that the ND underestimated the Project's emissions and therefore cannot be relied upon to determine the significant of the Project's air quality impacts. (Ex. C, pp. 2-3.) The MND relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod"). (*Id*. at p. 2.) This model, which is used to generate a project's construction and operational emissions, relies on recommended default values based on site specific information related to a number of factors (*Id*.) CEQA requires that any changes to the default values must be justified by substantial evidence.

SWAPE reviewed the Project's CalEEMod output files and found that the values input into the model were inconsistent with information provided in the ND. (Ex. C, p. 2.) This results in an underestimation of the Project's emissions. (*Id*.) As a result, an EIR should be prepared that adequately evaluates the Project's air quality impacts. (*Id*. at pp. 2-3.)

Specifically, SWAPE found that the following values used in the MND's air quality analysis were either inconsistent with information provided in the MND or otherwise unjustified:

1. Underestimated Land Use Size (Ex. C, p. 3.)
2. Underestimated Land Use Size (Ex. C, pp. 3-4.)

As a result of these errors, the ND underestimates the Project's construction and operational emissions and cannot be relied upon to determine the significance of the Project's air quality impacts.

B. SWAPE's updated analysis of the Project's air quality impacts establishes a fair argument that the Project may result in significant emissions of ROGs.

In an effort to accurately determine the proposed Project's construction and operational emissions, SWAPE prepared an updated CalEEMod model that includes more site-specific information and correct input parameters. (Ex. C, p. 4.) SWAPE's updated analysis accounted for the entire 100,000 square feet of the MOB. (*Id*.) SWAPE's updated analysis found that the Project's construction-related ROG emissions exceed the of 82 pounds per day ("lbs/day") significance threshold set by PCAPCD, as shown below. (*Id*.)

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
IS/ND	17
SWAPE	98
% Increase	476%
PCAPCD Threshold	**82**
Exceeds?	***Yes***

SWAPE's expert analysis of the Project's construction emissions establishes that the Project may result in significant ROG. Under CEQA, SWAPE's fair argument requires that the City prepare an EIR to disclose and mitigate this impact.

VI. An EIR is required for the Project's potentially significant greenhouse gas impacts.

The ND improperly concludes that the Project's greenhouse gas ("GHG") impacts would be less than significant. The ND relies on the City's General Plan Update ("GPU") EIR, which concluded that, even with mitigation, GHG impacts would be significant and unavoidable. The ND then jumps to the conclusion that the Project's GHG impacts would be less than significant because "[t]he project complies with General Plan policy related to GHG and the project does not result in any new GHG impacts not previously analyzed in the GPU EIR." (Initial Study, p. 26.) However, even if the project complies with the City's General Plan policies, it does not follow that the Project's impacts are necessarily less than significant. The GPU EIR concluded that GHG impacts would be significant and unavoidable, so compliance with the General Plan in no way indicates less-than-significant GHG impacts. Instead, the City needs to evaluate *this* Project's GHG impacts to see if they remain significant and unavoidable.

Although the City may tier the Project's GHG impacts from the GPU EIR, an ND is inappropriate where the Project will result in significant and unavoidable impacts. In the case *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 122-25, the court of appeal held that when a "first tier" EIR admits a significant, unavoidable environmental impact, then the agency must prepare second tier EIRs for later projects to ensure that those unmitigated impacts are "mitigated or avoided." (*Id.*) The court reasoned that the unmitigated impacts were not "adequately addressed" in the first tier EIR since the impacts were not "mitigated or avoided." (*Id.*) Thus, significant effects disclosed in first tier EIRs will trigger second tier EIRs unless such effects have been "adequately addressed," in a way that ensures the effects will be "mitigated or avoided." (*Id.*) When a project tiers from a prior EIR but still results in significant and unavoidable impacts, a second tier is required as well as a new Statement of Overriding Considerations. The court explained, "The requirement of a statement of overriding considerations is central to CEQA's role as a public accountability statute; it requires public officials, in approving environmental detrimental projects, to justify their decisions based on

counterbalancing social, economic or other benefits, and to point to substantial evidence in support." (*Id*. at pp. 124-25.)

Here, the ND made no attempt to determine whether the Project's individual GHG impacts would actually be less than significant. In order to evaluate the Project's GHG impacts, SWAPE quantified the Project's GHG emissions and compared them to the PCAPCD's De Minimis Level operational threshold of 1,100 metric tons of carbon dioxide equivalents per year ("MT CO2e/year"). (Ex. C, p. 6.) As shown below, the Project's GHG emissions exceed the PCAPCD threshold:

SWAPE Annual Greenhouse Gas Emissions	
Project Phase	**Proposed Project** (MT CO_2e/year)
Area	*0.00*
Energy	*519.71*
Mobile	*1,837.00*
Waste	*543.13*
Water	*33.48*
Total Annual Emissions	2,933.32
PCAPCD De Minimis Level	**1,100**
Exceeds?	***Yes***

SWAPE's calculation establish a fair argument that the Project may result in significant GHG impacts. Unless the City can ensure that the GUP EIR reduces this impact to a less-than-significant level, an EIR and new Statement of Overriding Considerations is required under CEQA. SWAPE suggests numerous mitigation measures that could be applied to this Project to reduce the GHG impacts. (Ex. C, pp. 9-11.) The City should evaluate these feasible mitigation measures and incorporate them into a new EIR for the Project.

VII. The ND fails to consider renewable energy alternatives.

When analyzing a project's energy use to determine if it creates significant effects, CEQA requires a discussion of whether any renewable energy features could be incorporated into the project. (*League to Save Lake Tahoe Mountain Area Preservation Foundation v. County of Placer* (2022) 75 Cal.App.5th 63, 167 (*League to Save Lake Tahoe*).) Compliance with state and local regulatory programs is not sufficient to determine that a project will not result in a wasteful or inefficient use of energy. (*Id*. at p. 165.)

Although the ND discusses the Project's consistency with the Northeast Roseville Specific Plan EIR (ND, pp. 21-22), there is no discussion of "whether any renewable energy features could be incorporated into the project as part of determining whether the project's impacts on energy resources were significant." (See *League to Save Lake Tahoe*, *supra*, 75 Cal.App.5th at p. 168.) An updated energy analysis should be conducted and circulated in a revised ND or EIR in order to comply with CEQA.

CONCLUSION

LIUNA's experts have established a fair argument that the Project may have significant impacts on related to formaldehyde, ROGs, GHGs, and noise. Furthermore, the ND's analyses of these impacts as well as energy impacts, are not supported by substantial evidence. Therefore, LIUNA respectfully requests that the City prepare and circulate an EIR prior to further consideration of the Project.

Sincerely,



Brian B. Flynn
Lozeau Drury LLP

EXHIBIT A

IEE INDOOR ENVIRONMENTAL ENGINEERING IEE
1448 Pine Street, Suite 103 San Francisco, California 94109
Telephone: (415) 567-7700
E-mail: offermann@IEE-SF.com
http://www.iee-sf.com

Date: May 11, 2022

To: Brian Flynn
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: Sutter Parking Garage and Medical Office Building 7 Project, Roseville, CA. (IEE File Reference: P-4575)

Pages: 18

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of

exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Placer County Air Pollution Control District (PCAPCD, 2017).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m^3 to 28% for the Acute REL of 55 µg/m^3.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Singer et. al., 2019), and found that the median indoor formaldehyde in new homes built after 2009 with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentration of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS. Unlike in the CNHS study where formaldehyde concentrations were measured with pumped DNPH samplers, the formaldehyde concentrations in the HENGH study were measured with passive samplers, which were estimated to under-measure the true indoor formaldehyde concentrations by approximately 7.5%. Applying this correction to the HENGH indoor formaldehyde concentrations results in a median indoor concentration of 24.1 $\mu g/m^3$, which is 33% lower than the 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 33% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 120 per million for homes built with CARB compliant composite wood products. This median lifetime cancer risk is more than 12 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to the Sutter Parking Garage and Medical Office Building 7 Project, Roseville, CA, the buildings consist of a parking garage and a medical office building.

The employees of the medical office building are expected to experience significant indoor

exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because the medical office building spaces will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 24.1 $\mu g/m^3$ (Singer et. al., 2020)

Assuming that the medical office building employees work 8 hours per day and inhale 20 m^3 of air per day, the formaldehyde dose per work-day is 161 µg/day.

Assuming that these employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime formaldehyde daily dose is 70.9 µg/day.

This is 1.77 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 17.7 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Appendix A, Indoor Formaldehyde Concentrations and the CARB Formaldehyde ATCM, provides analyses that show utilization of CARB Phase 2 Formaldehyde ATCM materials will not ensure acceptable cancer risks with respect to formaldehyde emissions from composite wood products.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not ensure that the indoor air will have concentrations of formaldehyde that substantially exceed 10 per million. The permissible emission rates for

ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can ensure that the OEHHA cancer risk of 10 per million is met.

The following describes a method that should be used, prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of specific building materials/furnishings selected exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine, before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed, if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate

zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines

(OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., $\mu g/m^2$-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus, for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 $\mu g/m^2$-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 $\mu g/m^2$-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the

indoor formaldehyde concentration (µg/m^3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration (µg/m^3)

E_{total} = total formaldehyde emission rate (µg/h) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 "Calculation of Estimated Building Concentrations" of the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of

formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers," (CDPH, 2017), and use the procedure described earlier above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to ensure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in new homes without mechanical outdoor air ventilation were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never

open their windows, especially in the winter season. The median 24-hour measurement was 0.26 air changes per hour (ach), with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

The Sutter Parking Garage and Medical Office Building 7 Project is close to roads with moderate to high traffic (e.g., I-80, CA-65, Secret Ravine Parkway, East Roseville Parkway, Medical Plaza Drive, etc.).

The Project noise assessment in the Negative Declaration and Initial Study (City of Roseville, 2022), contains no current or future assessment of the ambient noise levels resulting from the nearby roadway traffic. In my professional opinion the ambient noise levels resulting from the nearby roadway traffic will be significant and require specific mitigation measures. An acoustic assessment of the current or future ambient noise levels resulting from the nearby roadway traffic should be conducted.

As a result of the anticipated high outdoor noise levels, the Project will likely require a mechanical supply of outdoor air ventilation to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

PM_{10} and $PM_{2.5}$ Outdoor Concentrations Impact. According to the Negative Declaration and Initial Study (City of Roseville, 2022), the Project is located in the Sacramento Valley Air Basin, which is a State non-attainment area for PM_{10} and a Federal non-attainment area for $PM_{2.5}$.

An air quality analyses should to be conducted to determine the concentrations of PM_{10} and $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and

projected future emissions from local sources upon the outdoor air concentrations at the Project site. If the outdoor concentrations are determined to exceed the State PM_{10} and Federal $PM_{2.5}$ concentrations, then the buildings will need to have a mechanical supply of outdoor air that has air filtration with sufficient removal efficiency, such that the indoor concentrations of outdoor PM_{10} and $PM_{2.5}$ are less than the State and Federal requirements.

Thus the Project will likely require installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins (CARB, 2009). CARB Phase 2 certified composite wood products, or ultra-low emitting formaldehyde (ULEF) resins, do not insure indoor formaldehyde concentrations that are below the CEQA cancer risk of 10 per million. Only composite wood products manufactured with CARB approved no-added formaldehyde (NAF) resins, such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder “speculate” on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct

using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described above (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

References

BIFA. 2018. BIFMA Product Safety and Performance Standards and Guidelines. www.bifma.org/page/standardsoverview

California Air Resources Board. 2009. Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products. California Environmental Protection Agency, Sacramento, CA. https://www.arb.ca.gov/regact/2007/compwood07/fro-final.pdf

California Air Resources Board. 2011. Toxic Air Contaminant Identification List. California Environmental Protection Agency, Sacramento, CA. https://www.arb.ca.gov/toxics/id/taclist.htm

California Building Code. 2001. California Code of Regulations, Title 24, Part 2 Volume 1, Appendix Chapter 12, Interior Environment, Division 1, Ventilation, Section 1207: 2001 California Building Code, California Building Standards Commission. Sacramento, CA.

California Building Standards Commission (2014). 2013 California Green Building Standards Code. California Code of Regulations, Title 24, Part 11. California Building Standards Commission, Sacramento, CA http://www.bsc.ca.gov/Home/CALGreen.aspx.

California Energy Commission, PIER Program. CEC-500-2007-033. Final Report, ARB Contract 03-326. Available at: www.arb.ca.gov/research/apr/past/03-326.pdf.

California Energy Commission, 2015. 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, California Code of Regulations, Title 24, Part 6. http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf

CDPH. 2017. Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1. California Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/ DEODC/EHLB/IAQ/Pages/VOC.aspx.

City of Roseville. 2022. Negative Declaration and Initial Study - Sutter Parking Garage Expansion & Sutter MOB 7 Project.

EPA. 2011. Exposure Factors Handbook: 2011 Edition, Chapter 16 – Activity Factors. Report EPA/600/R-09/052F, September 2011. U.S. Environmental Protection Agency, Washington, D.C.

Hodgson, A. T., D. Beal, J.E.R. McIlvaine. 2002. Sources of formaldehyde, other aldehydes and terpenes in a new manufactured house. Indoor Air 12: 235–242.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments.

OEHHA (Office of Environmental Health Hazard Assessment). 2017a. Proposition 65 Safe Harbor Levels. No Significant Risk Levels for Carcinogens and Maximum Allowable Dose Levels for Chemicals Causing Reproductive Toxicity. Available at: http://www.oehha.ca.gov/prop65/pdf/safeharbor081513.pdf

OEHHA - Office of Environmental Health Hazard Assessment. 2017b. All OEHHA Acute, 8-hour and Chronic Reference Exposure Levels. Available at: http://oehha.ca.gov/air/allrels.html

Offermann, F. J. 2009. Ventilation and Indoor Air Quality in New Homes. California Air Resources Board and California Energy Commission, PIER Energy-Related Environmental Research Program. Collaborative Report. CEC-500-2009-085. https://www.arb.ca.gov/research/apr/past/04-310.pdf

Offermann, F. J. and A. T. Hodgson. 2011. Emission Rates of Volatile Organic Compounds in New Homes. Proceedings Indoor Air 2011 (12th International Conference on Indoor Air Quality and Climate 2011), June 5-10, 2011, Austin, TX.

Singer, B.C, Chan, W.R, Kim, Y., Offermann, F.J., and Walker I.S. 2020. Indoor Air Quality in California Homes with Code-Required Mechanical Ventilation. Indoor Air, Vol 30, Issue 5, 885-899.

Placer County Air Pollution Control District (PCAPCD). 2017. CEQA Handbook. Appendix G. https://www.placer.ca.gov/DocumentCenter/View/2044/Appendix-G-Preparing-a-Health-Risk-Assessment-for-Land-Use-Projects-PDF

USGBC. 2014. LEED BD+C Homes v4. U.S. Green Building Council, Washington, D.C. http://www.usgbc.org/credits/homes/v4

APPENDIX A

INDOOR FORMALDEHYDE CONCENTRATIONS
AND THE
CARB FORMALDEHYDE ATCM

With respect to formaldehyde emissions from composite wood products, the CARB ATCM regulations of formaldehyde emissions from composite wood products, do not assure healthful indoor air quality. The following is the stated purpose of the CARB ATCM regulation - *The purpose of this airborne toxic control measure is to "reduce formaldehyde emissions from composite wood products, and finished goods that contain composite wood products, that are sold, offered for sale, supplied, used, or manufactured for sale in California"*. In other words, the CARB ATCM regulations do not "assure healthful indoor air quality", but rather "reduce formaldehyde emissions from composite wood products".

Just how much protection do the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products? Definitely some, but certainly the regulations do not "*assure healthful indoor air quality"* when CARB Phase 2 products are utilized. As shown in the Chan 2019 study of new California homes, the median indoor formaldehyde concentration was of 22.4 $\mu g/m^3$ (18.2 ppb), which corresponds to a cancer risk of 112 per million for occupants with continuous exposure, which is more than 11 times the CEQA cancer risk of 10 per million.

Another way of looking at how much protection the CARB ATCM regulations provide building occupants from the formaldehyde emissions generated by composite wood products is to calculate the maximum number of square feet of composite wood product that can be in a residence without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy.

For this calculation I utilized the floor area (2,272 ft^2), the ceiling height (8.5 ft), and the number of bedrooms (4) as defined in Appendix B (New Single-Family Residence Scenario) of the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1, 2017, California Department of Public Health,

Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

For the outdoor air ventilation rate I used the 2019 Title 24 code required mechanical ventilation rate (ASHRAE 62.2) of 106 cfm (180 m^3/h) calculated for this model residence. For the composite wood formaldehyde emission rates I used the CARB ATCM Phase 2 rates.

The calculated maximum number of square feet of composite wood product that can be in a residence, without exceeding the CEQA cancer risk of 10 per million for occupants with continuous occupancy are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 15 ft^2 (0.7% of the floor area), or
Particle Board – 30 ft^2 (1.3% of the floor area), or
Hardwood Plywood – 54 ft^2 (2.4% of the floor area), or
Thin MDF – 46 ft^2 (2.0 % of the floor area).

For offices and hotels the calculated maximum amount of composite wood product (% of floor area) that can be used without exceeding the CEQA cancer risk of 10 per million for occupants, assuming 8 hours/day occupancy, and the California Mechanical Code minimum outdoor air ventilation rates are as follows for the different types of regulated composite wood products.

Medium Density Fiberboard (MDF) – 3.6 % (offices) and 4.6% (hotel rooms), or
Particle Board – 7.2 % (offices) and 9.4% (hotel rooms), or
Hardwood Plywood – 13 % (offices) and 17% (hotel rooms), or
Thin MDF – 11 % (offices) and 14 % (hotel rooms)

Clearly the CARB ATCM does not regulate the formaldehyde emissions from composite wood products such that the potentially large areas of these products, such as for flooring, baseboards, interior doors, window and door trims, and kitchen and bathroom cabinetry, could be used without causing indoor formaldehyde concentrations that result in CEQA

cancer risks that substantially exceed 10 per million for occupants with continuous occupancy.

Even composite wood products manufactured with CARB certified ultra low emitting formaldehyde (ULEF) resins do not insure that the indoor air will have concentrations of formaldehyde the meet the OEHHA cancer risks that substantially exceed 10 per million. The permissible emission rates for ULEF composite wood products are only 11-15% lower than the CARB Phase 2 emission rates. Only use of composite wood products made with no-added formaldehyde resins (NAF), such as resins made from soy, polyvinyl acetate, or methylene diisocyanate can insure that the OEHHA cancer risk of 10 per million is met.

If CARB Phase 2 compliant or ULEF composite wood products are utilized in construction, then the resulting indoor formaldehyde concentrations should be determined in the design phase using the specific amounts of each type of composite wood product, the specific formaldehyde emission rates, and the volume and outdoor air ventilation rates of the indoor spaces, and all feasible mitigation measures employed to reduce this impact (e.g. use less formaldehyde containing composite wood products and/or incorporate mechanical systems capable of higher outdoor air ventilation rates). See the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Alternatively, and perhaps a simpler approach, is to use only composite wood products (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins.



Home
Company Profile
Healthy Building Services
Diagnostic Services
Laboratory Services
Workshops & Seminars
Expert Witness Services
Resources
News & Events
Employment
Contact Us

Expert Witness Services



View Curriculum Vitae (PDF)

Francis (Bud) J. Offermann PE CIH

President: Indoor Environmental Engineering,
San Francisco, CA. December, 1981 - present.
e-mail: offermann@iee-sf.com

Education

- M.S. Mechanical Engineering Stanford University, Stanford, CA.
- Graduate Studies in Air Pollution Monitoring and Control University of California, Berkeley, CA.
- B.S. in Mechanical Engineering Rensselaer Polytechnic Institute, Troy, N.Y.

Professional Affiliations

ACGIH, AIHA, ASHRAE, CSI, ASTM, ISIAQ, PARMA, and USGBC

Work Experience

Mr. Offermann PE, CIH, has 36 years experience as an IAQ researcher, technical author, and workshop instructor. He is president of Indoor Environmental Engineering, a San Francisco based IAQ R&D consulting firm. As president of Indoor Environmental Engineering, Mr. Offermann directs an interdisciplinary team of environmental scientists, chemists, and mechanical engineers in indoor air quality building investigations. Under Mr. Offermann's supervision, IEE has developed both pro-active and reactive IAQ measurement methods and diagnostic protocols. He has supervised over 2,000 IAQ investigations in commercial, residential, and institutional buildings and conducted numerous forensic investigations related to IAQ.

Litigation Experience

Mr. Offermann has been qualified numerous times in court as an expert in the field of indoor air quality and ventilation for both plaintiffs and defendants. He has been deposed over 150 times in cases involving indoor air quality/ventilation issues in commercial, residential, and institutional buildings involving construction defects, and/or operation and maintenance problems. Examples of indoor air quality cases he has worked on are alleged personal injury and/or property damages from mold and bacterial contamination/moisture intrusion, building renovation activities, insufficient outdoor air ventilation, off gassing of volatile organic compounds from building materials and coatings, malfunctioning gas heaters and carbon monoxide poisoning, and applications of pesticides. Mr. Offermann has testified with respect to the scientific admissability of expert testimony regarding indoor air quality issues via Daubert and Kelly-Frye motions.

Copyright 2006 Indoor Environmental Engineering. Site design by Tierra Technology.

CLICKY ANALYTICS CLICKY ANALYTICS

EXHIBIT B

WILSON IHRIG
ACOUSTICS, NOISE & VIBRATION

CALIFORNIA
WASHINGTON
NEW YORK

WI #22-004.12

May 10, 2022

Mr. Brian Flynn
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

SUBJECT: Sutter Parking Garage Expansion and Medical Office Building Negative Declaration, Comments on the Noise Analysis

Dear Mr. Flynn,

Per your request, I have reviewed the subject matter document for the Sutter Parking Garage Expansion and Medical Office Building Negative Declaration (ND) in Roseville, California. The proposed Project would include expansion of an existing 5-story parking garage with a 6-story addition and a new medical office building (MOB) that would be constructed in two phases: initial 4-story structure, and a 2-story addition to be added later. The MOB would house a new Graduate Medical Education (GME) program.

Context and Analysis from the prior EIR are Omitted

The ND references the Sutter Roseville Medical Center Master Plan EIR[1] (EIR) as documents relied upon for the preparation of the ND. These documents were not available online via CEQANet nor under the City's Planning Department website. The ND omits any mention of key information it may have used in the noise analysis, such as significance thresholds, impacts, and mitigation measures. Thus, it is difficult to determine whether the components of the project fall within the prior environmental analysis.

Thresholds of Significance are Not Properly Developed

Lacking access to the prior EIR, the ND lacks any discussion of the thresholds used to determine significance. Per CEQA[2], the ND must clearly identify and mitigate eliminate **potentially** significant effects, as shown in Figure 1.

[1] SCH #90020142 and #93092081
[2] https://govt.westlaw.com/calregs/Document/IA1DEFD80D48811DEBC02831C6D6C108E?

§ 15070. Decision to Prepare a Negative or Mitigated Negative Declaration.

A public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

(b) The initial study identifies potentially significant effects, but:

(1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Figure 1 CEQA Section 15070 (a) and (b)

The Roseville *CEQA Implementing Procedures* (Procedures) are referenced throughout the ND, and the ND states that Findings from these Procedures was that the City's noise ordinance would be sufficient to determine significance of noise impacts. These Procedures[3] available online do not appear to be the right document, as there are no "Findings", and this Procedures document includes no discussion about CEQA thresholds to use in CEQA analysis. Thus, there is no evidence to substantiate that the noise ordinance is sufficient to determine potential significance.

The project includes a new private outdoor area. The ND does not appear to show where this outdoor area would be located, nor how it would be used. The hours of operation of this private outdoor area have not been provided, and if large gatherings (social or meetings) would be held, with amplified voice or music, this would be a new usage and potentially significant.

Thus, thresholds that could be considered to evaluate potentially significant noise impacts include:

Sleep disturbance and annoyance

The ND lacks any assessment of potentially significant noise impacts caused by activities in the private outdoor area. Although the health effects of noise are not taken as seriously in the United States as they are in other countries, they are real and, in many parts of the country, pervasive[4]. Noise can disturb sleep by making it more difficult to fall asleep, by waking someone after they are asleep, or by altering their sleep stage, e.g., reducing the amount of rapid eye movement (REM) sleep. Noise exposure for people who are sleeping has also been linked to increased blood pressure, increased heart rate, increase in body movements, and other physiological effects. Not surprisingly, people whose sleep is disturbed by noise often experience secondary effects such as increased fatigue, depressed mood, and decreased work performance.

Thus, excessive noise from amplified speech or music in the private outdoor area occurring between 10 PM and 7 AM could cause sleep disturbance and would be potentially significant. The World Health Organization[5] (WHO) identifies a guidance of 45 dBA Leq (outdoors) to avoid sleep disturbance from

[3] https://roseville.ca.us/government/departments/development_services/planning/citywide_planning_documents
[4] More information on these and other adverse effects of noise may be found in Guidelines for Community Noise, eds B Berglund, T Lindvall, and D Schwela, World Health Organization, Geneva, Switzerland, 1999. https://www.who.int/docstore/peh/noise/Comnoise-1.pdf
[5] Ibid.

a continuous source, and a limit of 60 dBA Lmax for intermittent sources[6]. However, it has been our experience that low frequency bass notes, commonly found in music played at social events, can be problematic even when the A-weighted level complies with applicable code. This is partly because the low frequencies pass through the exterior walls and closed windows with little reduction.

For annoyance, WHO identifies a guidance of 50 dBA Leq (outdoors) to avoid moderate annoyance during daytime and evening hours (7 AM to 10 PM).

Speech Interference

For intelligibility of speech, which could be substantially impacted for people in nearby offices or working from home, WHO identifies a guidance of 35 dBA Leq (indoors), which equates to 50 dBA Leq outdoors for building with open windows. If the windows can be shut (e.g., if sufficient ventilation is provided), then the outdoor noise limit would be 60 dBA Leq.

Construction Noise and Vibration

Similarly, the effect of construction noise and vibration has been minimized in the ND discussion. The ND characterizes construction as "temporary" and appears to rely on this fact to avoid evaluation of the construction noise and vibration. The ND provides no metrics to evaluate the significance of construction noise and vibration. Daytime construction could interfere with daytime activities, such as interfering with speech during conversations and phone calls.

Caltrans provides guidance to evaluate the effects of vibration from construction sources[7]. Construction activities which generate vibration on the order of 0.04 in/sec PPV for continuous or frequent intermittent sources such as vibratory compaction and 0.25 in/sec PPV for transient sources such as trucks are "distinctly perceptible" and could be potentially significant.

Noise Ordinance Compliance

Table 1 of the Roseville Noise Regulation (Chapter 9/24)[8] identifies a noise limits of 50 dBA during the daytime (7 AM to 10 PM) and 45 dBA during the nighttime (10 PM to 7 AM) from non-transportation or fixed sound sources. This information is lacking in the ND.

Impact Analyses are Incomplete

Mechanical equipment

The ND provides no evidence that the rooftop equipment for the MOB would comply with the Municipal code, and provides no evidence that the addition of such equipment would be less than significant at the nearest residential structure, which is only 120 ft away. Depending on the cooling needs, commercial-use air handling cooling systems can generate 78 to 94 dBA at 3 ft[9]. With two of these units in operation the resulting noise level at the nearest residence would be 49 to 65 dBA. This would be a potentially significant impact. If this equipment would operate into the nighttime hours,

[6] These outdoor levels assume that the residence reduces noise by 15 dBA with windows open, which is typical for conventional construction.
[7] https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf
[8] https://library.qcode.us/lib/roseville_ca/pub/municipal_code/item/title_9-chapter_9_24
[9] Carrier N series generates 76 dBA at 25 ft distance, or about 94 dBA at 3 ft.

it would exceed the 45 dBA noise limit; during daytime hours, the largest of the potential equipment would also exceed the 50 dBA noise limit.

Emergency/standby generators are commonly used for essential buildings, and the ND appears to lack any discussion of such equipment in the noise analysis.

Construction Noise

Information from Caltrans[10] and other sources can be used to estimate noise from construction. Demolition of existing buildings, excavation, foundations, concrete and building erection will all require several months of activity. Even if this work would only be conducted during daytime hours, the interference on daytime activities such as talking on the phone, conducting meetings, etc. at nearby offices and residences could be potentially significant. The ND provides no evidence that the on-going construction noise and vibration would be less than significant. Table 1 provides sample calculations from five different types of construction equipment, some of which could combine. Thus, during demolition and site preparation, noise from a hoe ram, excavator, or dozer could generate noise as high as 72 to 86 dBA Lmax at the nearest residence, with on-going noise over several hours each day ranging from 68 to 79 dBA Leq. If several activities and/or equipment would be operating at the same time, the noise would be even higher. During building construction, the noise from a crane, front end loader or pneumatic tools would range from 67 to 77 dBA Lmax, with on-going noise levels of 63 to 74 dBA Leq. Based on the WHO guidance, these exterior noise levels would all cause speech interference at interior locations. This would be potentially significant at nearby noise sensitive receptors.

Table 1 Sample Calculations from Construction Noise

Equipment	Reference Level at 50 ft (dBA)	Usage Factor (%)	Distance to Nearest Residence			Intermittent Level (dBA Lmax)			On-going Level (dBA Leq)		
			Near distance	Building edge	Center distance	Near distance	Building edge	Center distance	Near distance	Building edge	Center distance
Mounted Impact Hammer Hoe Ram	90	20	75	120	230	86	82	77	79	75	70
Excavator or Dozer	85	40	75	120	230	81	77	72	77	73	68
Crane	85	16	75	120	230	N/A	77	72	N/A	69	64
Front end loader	80	40	75	120	230	76	72	67	72	68	63
Pneumatic Tools	85	50	75	120	230	N/A	77	72	N/A	74	69

Noise Mitigations are Lacking

As noted above, the rooftop equipment on the MOB would potentially exceed the noise limits. Mitigations include selection, siting and/or screening of the mechanical equipment to ensure that the combined mechanical equipment noise would be properly controlled to meet 50 dBA during the daytime and 45 dBA at nighttime.

[10] https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf

To mitigate construction noise, mitigation measures should include the following, and the ND should include evidence that these measures would be sufficient to eliminate the (potentially) significant impacts below the thresholds of significance:

- Sound barrier or blankets that block line of sight from the noisiest construction equipment and activities to the noise sensitive neighbors.
- Buffer distances to keep noisy activities and stationary equipment away from noise sensitive neighbors.
- Notification is useful community outreach, but has no bearing on reducing noise.

Conclusions

The ND lacks evidence to support its conclusions regarding construction noise and vibration and operational noise. Thresholds of significance have been omitted from the document. The mechanical noise, generator noise and construction noise analyses in the ISMND also are not complete, and based on the analysis discussed above, mitigations are required.

Please feel free to contact me with any questions on this information.

Very truly yours,

WILSON IHRIG

Deborah A. Jue

Deborah A. Jue, INCE-USA
Principal

sutter garage mob nd_noise review_wilson ihrig_5-10-22.docx

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

May 11, 2022

Brian Flynn
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94618

Subject: Comments on the Sutter Parking Garage Expansion Project (SCH No. 2022040255)

Dear Mr. Flynn,

We have reviewed the April 2022 Initial Study / Negative Declaration ("IS/ND") for the Sutter Parking Garage Expansion & Sutter MOB Project ("Project") located in the City of Roseville ("City"). The Project proposes to expand the existing 5-story parking structure with the addition of a 6-story parking structure on a 0.94-acre site, as well as construct of a 100,000-square-foot ("SF") medical office building on a 1.64-acre site.

Our review concludes that the IS/ND fails to adequately evaluate the Project's air quality and greenhouse gas impacts. As a result, emissions associated with construction of the proposed Project are underestimated and inadequately addressed. An Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality

Failure to Adequately Evaluate Operational Criteria Air Pollutant Emissions

The IS/ND fails to quantify the Project's operational criteria air pollutant emissions. Specifically, the IS/ND states:

> "The PCAPCD maintains screening thresholds to determine when modeling is required to evaluate impacts resulting from project operation. The screening thresholds indicates a General Office project must involve more than 648,000 square feet of building area before the PCAPCD significance thresholds for criteria pollutants are likely to be exceed. The proposed MOB includes 100,000 square feet of building area, and the parking garage expansion includes

approximately 200,000 square feet of building area, which is well below the screening thresholds; therefore, the project will not result in operational emissions which exceed established thresholds" (p. 14).

Review of the Placer County Air Pollution Control District ("PCAPCD") demonstrates that the air district includes screening thresholds (see excerpt below):[1]

Table 2-2: Corresponding Size of a Project for 55 lbs/day of NOx Emissions

Residential (# of units)			Commercial/Industrial (sf)		
Single Family	Condo	Apartment	General Commercial	General Office	General Industrial
617	868	911	249,099	648,661	894,262

As demonstrated above, the screening thresholds are associated with NO_X emissions. Furthermore, the PCAPCD states that the above-mentioned thresholds are a "preliminary screening methodology and it does not include ROG operational emissions."[2] Thus, while the IS/ND is correct in concluding that the size of the proposed Project is below the "General Office" threshold of 648,661-SF, the IS/ND fails to acknowledge that the threshold is only applicable to operational NO_X emissions. As such, the IS/ND fails to quantify the Project's operational ROG emissions, which is incorrect per PCAPCD guidance. The Project should not be approved until an EIR is prepared to evaluate the ROG emissions associated with Project operation.

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The air quality analysis provided in the IS/ND relies on emissions calculated with the California Emissions Estimator Model ("CalEEMod") Version 2020.4.0 (p. 14).[3] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project's CalEEMod output files, provided in Attachment 3 to the IS/ND, we found that several model inputs are not consistent with information disclosed in the IS/ND. As a result, the Project's construction-related emissions are underestimated. An EIR should be prepared to include an

[1] "Chapter 2: Thresholds of Significance." PCAPCD, *available at:* https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF, p. 21, Table 2-2.
[2] "Chapter 2: Thresholds of Significance." PCAPCD, *available at:* https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF, p. 21.
[3] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

updated air quality analysis that adequately evaluates the impacts that construction of the Project will have on local and regional air quality.

Underestimated Land Use Size

According to the IS/ND:

> "The second DRP is for the construction of a 100,000 square foot medical office building constructed in two phases; Phase 1 totaling 85,000 square feet would be constructed immediately after City approval and Phase 2 totaling 15,000 square feet in size would be constructed at a later date" (p. 1).

As such, the model should have included 100,000-SF of medical office space. However, review of the CalEEMod output files demonstrates that the "Sutter Parking Garage Expansion & MOB 10" model includes only 100-SF of medical office space (see excerpt below) (Attachment 3, pp. 68, 98, 124).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area
Medical Office Building	1.00	1000sqft	1.64	100.00
Enclosed Parking with Elevator	1.00		0.94	191,957.00

As demonstrated in the excerpt above, the proposed medical office space is underestimated by 99,900-SF.[4] This underestimation presents an issue, as the land use size feature is used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations. The square footage of a land use is used for certain calculations, such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings).[5] As such, by underestimating the size of the proposed medical office land use, the model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance.

Underestimated Parking Land Use Size

Review of the CalEEMod output files demonstrates that the "Sutter Parking Garage Expansion & MOB 10" model includes 191,957-SF of parking land use space (see excerpt below) (Attachment 3, pp. 68, 98, 124).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area
Medical Office Building	1.00	1000sqft	1.64	100.00
Enclosed Parking with Elevator	1.00		0.94	191,957.00

However, regarding the size of the proposed parking structure, the IS/ND simply states:

> "The proposed expansion will consist of six-levels tied into the existing five-level parking garage" (p. 1).

[4] Calculated: (100,000-SF proposed warehouse space) – (100-SF modeled warehouse space) = 99,900-SF underestimated warehouse space.

[5] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 28.

As such, the IS/ND fails to substantiate the exact square-footage or the number of spaces to be provided by the proposed parking structure. This is incorrect, as according to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA." [6]

Here, as the IS/ND and associated documents fail to provide substantial evidence to support the land use size of the proposed parking structure, we cannot verify that the model is accurate.

This presents an issue, as the square footage of parking land uses is used for certain calculations, such as determining the area to be painted and stripped (i.e., VOC emissions from architectural coatings).[7] Thus, by potentially underestimating the proposed parking land use size, the model may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project's construction-related emissions, we prepared an updated CalEEMod model, using the Project-specific information provided by the IS/ND. In our updated model, we accounted for the entire 100,000-SF medical office building.[8]

Our updated analysis estimates that the Project's construction-related ROG emissions would exceed the applicable PCAPCD threshold of 82 pounds per day ("lbs/day"), as referenced by the IS/ND (p. 14) (see table below).[9]

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
IS/ND	17
SWAPE	98
% Increase	476%
PCAPCD Threshold	**82**
Exceeds?	***Yes***

As you can see in the table above, the Project's construction-related ROG emissions, as estimated by SWAPE, increase by approximately 476% and exceed the PCAPCD significance threshold. Thus, our

[6] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 13-14.
[7] "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 29.
[8] See Attachment A for updated air modeling.
[9] "Chapter 2: Thresholds of Significance." PCAPCD, *available at:* https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF, p. 21, Table 2-1.

updated model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the IS/ND. As a result, an EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on environment.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

Regarding the Project's potential greenhouse gas ("GHG") impact, the IS/ND states:

> "The City's General Plan Update (GPU) EIR included an analysis of GHG emissions, which would result from buildout of the City's General Plan. The EIR concluded that General Plan build out would exceed the City's threshold of 2.25 MT CO_2e per service population and that the affect was cumulatively considerable. Although mitigation measures were adopted as part of the General Plan, those measures would not reduce impacts to less-than-significant levels and impacts were considered significant and unavoidable. The proposed project is consistent with the land use assumptions in the GPU EIR and does not require further analysis per the tiering provisions of CEQA. The project includes reasonable and feasible design measures to reduce emissions, including implementation of the latest Cal-Green and energy efficiency code requirements. The medical office building will incorporate several alternative transportation measures like bike racks immediately in front of the medical office building. The project complies with General Plan policy related to GHG and the project does not result in any new GHG impacts not previously analyzed in the GPU EIR; therefore, impacts are less than significant" (p. 25-26).

However, the IS/ND fails to make any effort to quantify or evaluate the Project's GHG emissions. As a result, the IS/ND's analysis of the Project's potential GHG impact, as well as the subsequent less-than-significant impact conclusion, is incorrect for two reasons.

(1) The IS/ND fails to quantify the Project's potential GHG emissions; and
(2) The IS/ND fails to indicate a potentially significant impact.

1) Failure to Quantify GHG Emissions

As previously stated, the IS/ND concludes that the Project would result in a significant-and-unavoidable GHG impact (p. 25-26). However, the IS/ND fails to estimate the Project's net annual GHG emissions whatsoever. By failing to evaluate or quantify the Project's potential GHG emissions, the Project is inconsistent with CEQA. Specifically, according to CEQA Guidelines § 15064.4(a):

> "A lead agency shall make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." [10]

[10] "Final Adopted Text for Revisions to the CEQA Guidelines." Governor's Office of Planning and Research ("OPR"), *available at:* https://opr.ca.gov/ceqa/updates/guidelines/, p. 13.

As you can see in the excerpt above, CEQA Guidelines require a Project to "describe, calculate, or estimate" the GHG emissions that would be generated by the Project. Here, by failing to evaluate or quantify the Project's GHG emissions, the IS/ND is inconsistent with CEQA Guidelines and lacks evidence to support its conclusion that the Project emissions would be less-than-significant.

2) Updated Analysis Indicates a Potentially Significant Impact

In an effort to quantitatively evaluate the Project's GHG emissions, we compared the Project's GHG emissions, as estimated by SWAPE, to the PCAPCD De Minimis Level operational threshold of 1,100 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year").[11] When applying this threshold, SWAPE's updated air model indicates a potentially significant GHG impact.

The updated CalEEMod output files indicate that the Project would generate approximately 2,933.32 MT CO_2e/year of net annual GHG operational emissions (sum of area-, energy-, mobile-, waste-, and water-related emissions) (see table below).

SWAPE Annual Greenhouse Gas Emissions

Project Phase	**Proposed Project** (MT CO_2e/year)
Area	*0.00*
Energy	*519.71*
Mobile	*1,837.00*
Waste	*543.13*
Water	*33.48*
Total Annual Emissions	2,933.32
PCAPCD De Minimis Level	**1,100**
Exceeds?	***Yes***

As demonstrated above, the Project's net annual operational GHG emissions, as estimated by SWAPE, exceed the PCAPCD's De Minimis Level threshold of 1,100 MT CO_2e/year. According to PCAPCD guidance:

> "Projects with GHG emissions which exceed the De Minimis Level of 1,100 MT CO_2e/yr, but less than 10,000 MTCO_2e/yr can still be found less than cumulatively considerable when the result of project related efficiency analysis would meet one of conditions in the efficiency matrix for the applicable land use setting and land use type provided." [12]

[11] "California Environmental Quality Act Thresholds of Significance." Placer County Air Pollution Control District ("PCAPCD"), October 2016, *available at:* https://www.placer.ca.gov/DocumentCenter/View/2061/Threshold-Justification-Report-PDF, p. E-2.

[12] "California Environmental Quality Act Thresholds of Significance." Placer County Air Pollution Control District ("PCAPCD"), October 2016, *available at:* https://www.placer.ca.gov/DocumentCenter/View/2061/Threshold-Justification-Report-PDF, p. E-2.

As demonstrated above, for projects that exceed 1,100 MT CO_2e/year, the PCAPCD requires additional GHG analysis to determine a less-than-significant impact. As such, the Project may result in a potentially significant GHG impact not previously identified or addressed by the IS/ND. An EIR should be prepared to include an updated GHG analysis per PCAPCD guidance and adequately mitigate potential GHG impacts, if necessary.

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality and GHG impacts that should be mitigated further. As such, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Therefore, to reduce the Project's emissions, we recommend consideration of SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1") and Greenhouse Gas Project Level Mitigation Measures ("PMM-GHG-1"), as described below: [13]

SCAG RTP/SCS 2020-2045
Air Quality Project Level Mitigation Measures – PMM-AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
a) Minimize land disturbance.
b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c) Cover trucks when hauling dirt.
d) Stabilize the surface of dirt piles if not removed immediately.
e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f) Minimize unnecessary vehicular and machinery activities.
g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
j) Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet.
k) Ensure that all construction equipment is properly tuned and maintained.

[13] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.

m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.

n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.

o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.

p) As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site.

q) Require projects within 500 feet of residences, hospitals, or schools to use Tier 4 equipment for all engines above 50 horsepower (hp) unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds.

s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.

t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.

u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).

z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.

aa) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities.

bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible:

- Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%
- Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
- Nonroad diesel engines on site shall be Tier 2 or higher.
- Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp.
- Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
- Diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.
- The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following:
    i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment.
    ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.

iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.

- The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
- The contractor shall maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes:
    i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
    ii. Any problems with the equipment or emission controls.
    iii. Certified copies of fuel deliveries for the time period that identify:
        1. Source of supply
        2. Quantity of fuel
        3. Quantity of fuel, including sulfur content (percent by weight)

cc) Project should exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code). The following measures can be used to increase energy efficiency:

- Provide pedestrian network improvements, such as interconnected street network, narrower roadways and shorter block lengths, sidewalks, accessibility to transit and transit shelters, traffic calming measures, parks and public spaces, minimize pedestrian barriers.
- Provide traffic calming measures, such as:
    i. Marked crosswalks
    ii. Count-down signal timers
    iii. Curb extensions iv. Speed tables
    iv. Raised crosswalks
    v. Raised intersections
    vi. Median islands
    vii. Tight corner radii
    viii. Roundabouts or mini-circles
    ix. On-street parking
    x. Chicanes/chokers
- Create urban non-motorized zones
- Provide bike parking in non-residential and multi-unit residential projects
- Dedicate land for bike trails
- Limit parking supply through:
    i. Elimination (or reduction) of minimum parking requirements
    ii. Creation of maximum parking requirements
    iii. Provision of shared parking
- Require residential area parking permit.
- Provide ride-sharing programs
    i. Designate a certain percentage of parking spacing for ride sharing vehicles
    ii. Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
    iii. Providing a web site or messaging board for coordinating rides
    iv. Permanent transportation management association membership and finding requirement.

Greenhouse Gas Project Level Mitigation Measures – PMM-GHG-1

In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the *State CEQA Guidelines*, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:
b) Reduce emissions resulting from projects through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines.
c) Include off-site measures to mitigate a project's emissions.
d) Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction and operation of projects to minimize GHG emissions, including but not limited to: i. Use energy and fuel-efficient vehicles and equipment; ii. Deployment of zero- and/or near zero emission technologies; iii. Use lighting systems that are energy efficient, such as LED technology; iv. Use the minimum feasible amount of GHG-emitting construction materials; v. Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production; vi. Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse; vii. Incorporate design measures to reduce energy consumption and increase use of renewable energy; viii. Incorporate design measures to reduce water consumption; ix. Use lighter-colored pavement where feasible; x. Recycle construction debris to maximum extent feasible; xi. Plant shade trees in or near construction projects where feasible; and xii. Solicit bids that include concepts listed above.
e) Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to the following: i. Promote transit-active transportation coordinated strategies; ii. Increase bicycle carrying capacity on transit and rail vehicles; iii. Improve or increase access to transit; iv. Increase access to common goods and services, such as groceries, schools, and day care; v. Incorporate affordable housing into the project; vi. Incorporate the neighborhood electric vehicle network; vii. Orient the project toward transit, bicycle and pedestrian facilities; viii. Improve pedestrian or bicycle networks, or transit service; ix. Provide traffic calming measures; x. Provide bicycle parking; xi. Limit or eliminate park supply; xii. Unbundle parking costs; xiii. Provide parking cash-out programs; xiv. Implement or provide access to commute reduction program;
f) Incorporate bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; and planning for and building local bicycle projects that connect with the regional network;
g) Improving transit access to rail and bus routes by incentives for construction and transit facilities within developments, and/or providing dedicated shuttle service to transit stations; and

h) Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs including but not limited to measures that:

i. Provide car-sharing, bike sharing, and ride-sharing programs;
ii. Provide transit passes;
iii. Shift single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services;
iv. Provide incentives or subsidies that increase that use of modes other than single-occupancy vehicle;
v. Provide on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms;
vi. Provide employee transportation coordinators at employment sites;
vii. Provide a guaranteed ride home service to users of non-auto modes.

i) Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles;

j) Land use siting and design measures that reduce GHG emissions, including:

i. Developing on infill and brownfields sites;
ii. Building compact and mixed-use developments near transit;
iii. Retaining on-site mature trees and vegetation, and planting new canopy trees;
iv. Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and
v. Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.

k) Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities. The measures provided above are also intended to be applied in low income and minority communities as applicable and feasible.

l) Require at least five percent of all vehicle parking spaces include electric vehicle charging stations, or at a minimum, require the appropriate infrastructure to facilitate sufficient electric charging for passenger vehicles and trucks to plug-in.

m) Encourage telecommuting and alternative work schedules, such as:

i. Staggered starting times
ii. Flexible schedules
iii. Compressed work weeks

n) Implement commute trip reduction marketing, such as:

i. New employee orientation of trip reduction and alternative mode options
ii. Event promotions
iii. Publications

o) Implement preferential parking permit program

p) Implement school pool and bus programs

q) Price workplace parking, such as:

i. Explicitly charging for parking for its employees;
ii. Implementing above market rate pricing;
iii. Validating parking only for invited guests;
iv. Not providing employee parking and transportation allowances; and
v. Educating employees about available alternatives.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. An EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality, health risk, and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachment A: CalEEMod Output Files
Attachment B: Matt Hagemann CV
Attachment C: Paul E. Rosenfeld CV

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sutter Parking Garage Expansion & MOB 10

Placer-Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.64	100,000.00	0
Enclosed Parking with Elevator	1.00	1000sqft	0.94	191,957.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/ND's model.

Land Use - See SWAPE comment on "Underestimated Land Use Size"

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,000.00	191,957.00
tblLandUse	LotAcreage	2.30	1.64
tblLandUse	LotAcreage	0.02	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2206	1.7553	1.7427	4.0800e-003	0.1295	0.0751	0.2045	0.0393	0.0716	0.1109	0.0000	358.0225	358.0225	0.0454	0.0145	363.4872
2023	0.5434	0.4187	0.4740	1.0900e-003	0.0291	0.0171	0.0462	7.9200e-003	0.0163	0.0242	0.0000	95.5395	95.5395	0.0121	3.7200e-003	96.9507
Maximum	**0.5434**	**1.7553**	**1.7427**	**4.0800e-003**	**0.1295**	**0.0751**	**0.2045**	**0.0393**	**0.0716**	**0.1109**	**0.0000**	**358.0225**	**358.0225**	**0.0454**	**0.0145**	**363.4872**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2206	1.7553	1.7427	4.0800e-003	0.1295	0.0751	0.2045	0.0393	0.0716	0.1109	0.0000	358.0223	358.0223	0.0454	0.0145	363.4870
2023	0.5434	0.4187	0.4740	1.0900e-003	0.0291	0.0171	0.0462	7.9200e-003	0.0163	0.0242	0.0000	95.5394	95.5394	0.0121	3.7200e-003	96.9507
Maximum	**0.5434**	**1.7553**	**1.7427**	**4.0800e-003**	**0.1295**	**0.0751**	**0.2045**	**0.0393**	**0.0716**	**0.1109**	**0.0000**	**358.0223**	**358.0223**	**0.0454**	**0.0145**	**363.4870**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-23-2022**	**6-22-2022**	0.6247	0.6247
2	**6-23-2022**	**9-22-2022**	0.6427	0.6427
3	**9-23-2022**	**12-22-2022**	0.6415	0.6415
4	**12-23-2022**	**3-22-2023**	0.6046	0.6046
5	**3-23-2023**	**6-22-2023**	0.4270	0.4270
		Highest	0.6427	0.6427

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	0.4521	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	517.3496	517.3496	0.0318	5.2400e-003	519.7057
Mobile	1.2146	1.6056	10.3109	0.0192	1.8926	0.0176	1.9102	0.5070	0.0165	0.5235	0.0000	1,803.0820	1,803.0820	0.1297	0.1030	1,837.0035
Waste						0.0000	0.0000		0.0000	0.0000	219.2302	0.0000	219.2302	12.9561	0.0000	543.1336
Water						0.0000	0.0000		0.0000	0.0000	3.9809	16.3269	20.3078	0.4100	9.7900e-003	33.4766
Total	**1.6754**	**1.6855**	**10.3790**	**0.0197**	**1.8926**	**0.0237**	**1.9162**	**0.5070**	**0.0226**	**0.5296**	**223.2112**	**2,336.7603**	**2,559.9714**	**13.5277**	**0.1180**	**2,933.3213**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4521	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	517.3496	517.3496	0.0318	5.2400e-003	519.7057
Mobile	1.2146	1.6056	10.3109	0.0192	1.8926	0.0176	1.9102	0.5070	0.0165	0.5235	0.0000	1,803.0820	1,803.0820	0.1297	0.1030	1,837.0035
Waste						0.0000	0.0000		0.0000	0.0000	219.2302	0.0000	219.2302	12.9561	0.0000	543.1336
Water						0.0000	0.0000		0.0000	0.0000	3.9809	16.3269	20.3078	0.4100	9.7900e-003	33.4766
Total	**1.6754**	**1.6855**	**10.3790**	**0.0197**	**1.8926**	**0.0237**	**1.9162**	**0.5070**	**0.0226**	**0.5296**	**223.2112**	**2,336.7603**	**2,559.9714**	**13.5277**	**0.1180**	**2,933.3213**

	ROG	NOx	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	3/23/2022	4/19/2022	5	20	
2	Site Preparation	Site Preparation	4/20/2022	4/22/2022	5	3	
3	Grading	Grading	4/23/2022	5/2/2022	5	6	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	5/3/2022	3/6/2023	5	220	
5	Paving	Paving	3/7/2023	3/20/2023	5	10	
6	Architectural Coating	Architectural Coating	3/21/2023	4/3/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,517 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**		**8.3800e-003**	**8.3800e-003**		**7.8300e-003**	**7.8300e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2120**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	3.1800e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.8276	0.8276	3.0000e-005	2.0000e-005	0.8354
Total	**3.6000e-004**	**2.5000e-004**	**3.1800e-003**	**1.0000e-005**	**1.0200e-003**	**1.0000e-005**	**1.0300e-003**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**0.8276**	**0.8276**	**3.0000e-005**	**2.0000e-005**	**0.8354**

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	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**		**8.3800e-003**	**8.3800e-003**		**7.8300e-003**	**7.8300e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	3.1800e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.8276	0.8276	3.0000e-005	2.0000e-005	0.8354
Total	**3.6000e-004**	**2.5000e-004**	**3.1800e-003**	**1.0000e-005**	**1.0200e-003**	**1.0000e-005**	**1.0300e-003**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**0.0000**	**0.8276**	**0.8276**	**3.0000e-005**	**2.0000e-005**	**0.8354**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0764	0.0764	0.0000	0.0000	0.0771
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0764**	**0.0764**	**0.0000**	**0.0000**	**0.0771**

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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0764	0.0764	0.0000	0.0000	0.0771
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0764**	**0.0764**	**0.0000**	**0.0000**	**0.0771**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	7.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1910	0.1910	1.0000e-005	1.0000e-005	0.1928
Total	**8.0000e-005**	**6.0000e-005**	**7.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1910**	**0.1910**	**1.0000e-005**	**1.0000e-005**	**0.1928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	7.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1910	0.1910	1.0000e-005	1.0000e-005	0.1928
Total	**8.0000e-005**	**6.0000e-005**	**7.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1910**	**0.1910**	**1.0000e-005**	**1.0000e-005**	**0.1928**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1614	1.2706	1.2487	2.1800e-003		0.0611	0.0611		0.0586	0.0586	0.0000	180.6817	180.6817	0.0349	0.0000	181.5532
Total	**0.1614**	**1.2706**	**1.2487**	**2.1800e-003**		**0.0611**	**0.0611**		**0.0586**	**0.0586**	**0.0000**	**180.6817**	**180.6817**	**0.0349**	**0.0000**	**181.5532**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.7800e-003	0.2246	0.0669	8.8000e-004	0.0273	2.0600e-003	0.0293	7.9000e-003	1.9700e-003	9.8600e-003	0.0000	83.9194	83.9194	3.6000e-004	0.0127	87.7117
Worker	0.0273	0.0192	0.2404	6.8000e-004	0.0772	4.1000e-004	0.0776	0.0206	3.8000e-004	0.0209	0.0000	62.5858	62.5858	1.9600e-003	1.8000e-003	63.1723
Total	**0.0351**	**0.2438**	**0.3074**	**1.5600e-003**	**0.1045**	**2.4700e-003**	**0.1069**	**0.0285**	**2.3500e-003**	**0.0308**	**0.0000**	**146.5053**	**146.5053**	**2.3200e-003**	**0.0145**	**150.8839**

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	0.1614	1.2706	1.2487	2.1800e-003		0.0611	0.0611		0.0586	0.0586	0.0000	180.6815	180.6815	0.0349	0.0000	181.5529
Total	**0.1614**	**1.2706**	**1.2487**	**2.1800e-003**		**0.0611**	**0.0611**		**0.0586**	**0.0586**	**0.0000**	**180.6815**	**180.6815**	**0.0349**	**0.0000**	**181.5529**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.7800e-003	0.2246	0.0669	8.8000e-004	0.0273	2.0600e-003	0.0293	7.9000e-003	1.9700e-003	9.8600e-003	0.0000	83.9194	83.9194	3.6000e-004	0.0127	87.7117
Worker	0.0273	0.0192	0.2404	6.8000e-004	0.0772	4.1000e-004	0.0776	0.0206	3.8000e-004	0.0209	0.0000	62.5858	62.5858	1.9600e-003	1.8000e-003	63.1723
Total	**0.0351**	**0.2438**	**0.3074**	**1.5600e-003**	**0.1045**	**2.4700e-003**	**0.1069**	**0.0285**	**2.3500e-003**	**0.0308**	**0.0000**	**146.5053**	**146.5053**	**2.3200e-003**	**0.0145**	**150.8839**

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	0.0394	0.3134	0.3269	5.8000e-004		0.0141	0.0141		0.0135	0.0135	0.0000	47.7715	47.7715	9.0300e-003	0.0000	47.9973
Total	**0.0394**	**0.3134**	**0.3269**	**5.8000e-004**		**0.0141**	**0.0141**		**0.0135**	**0.0135**	**0.0000**	**47.7715**	**47.7715**	**9.0300e-003**	**0.0000**	**47.9973**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0510	0.0162	2.2000e-004	7.2100e-003	3.1000e-004	7.5200e-003	2.0900e-003	2.9000e-004	2.3800e-003	0.0000	21.4399	21.4399	6.0000e-005	3.2400e-003	22.4075
Worker	6.7100e-003	4.5000e-003	0.0591	1.7000e-004	0.0204	1.0000e-004	0.0205	5.4300e-003	9.0000e-005	5.5300e-003	0.0000	16.1169	16.1169	4.7000e-004	4.4000e-004	16.2608
Total	**7.9800e-003**	**0.0555**	**0.0753**	**3.9000e-004**	**0.0276**	**4.1000e-004**	**0.0280**	**7.5200e-003**	**3.8000e-004**	**7.9100e-003**	**0.0000**	**37.5568**	**37.5568**	**5.3000e-004**	**3.6800e-003**	**38.6683**

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	0.0394	0.3134	0.3269	5.8000e-004		0.0141	0.0141		0.0135	0.0135	0.0000	47.7714	47.7714	9.0300e-003	0.0000	47.9973
Total	**0.0394**	**0.3134**	**0.3269**	**5.8000e-004**		**0.0141**	**0.0141**		**0.0135**	**0.0135**	**0.0000**	**47.7714**	**47.7714**	**9.0300e-003**	**0.0000**	**47.9973**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0510	0.0162	2.2000e-004	7.2100e-003	3.1000e-004	7.5200e-003	2.0900e-003	2.9000e-004	2.3800e-003	0.0000	21.4399	21.4399	6.0000e-005	3.2400e-003	22.4075
Worker	6.7100e-003	4.5000e-003	0.0591	1.7000e-004	0.0204	1.0000e-004	0.0205	5.4300e-003	9.0000e-005	5.5300e-003	0.0000	16.1169	16.1169	4.7000e-004	4.4000e-004	16.2608
Total	**7.9800e-003**	**0.0555**	**0.0753**	**3.9000e-004**	**0.0276**	**4.1000e-004**	**0.0280**	**7.5200e-003**	**3.8000e-004**	**7.9100e-003**	**0.0000**	**37.5568**	**37.5568**	**5.3000e-004**	**3.6800e-003**	**38.6683**

3.6 Paving - 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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8179**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.9000e-004	1.3000e-004	1.7100e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4651	0.4651	1.0000e-005	1.0000e-005	0.4692
Total	**1.9000e-004**	**1.3000e-004**	**1.7100e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4651**	**0.4651**	**1.0000e-005**	**1.0000e-005**	**0.4692**

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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8178**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.9000e-004	1.3000e-004	1.7100e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4651	0.4651	1.0000e-005	1.0000e-005	0.4692
Total	**1.9000e-004**	**1.3000e-004**	**1.7100e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4651**	**0.4651**	**1.0000e-005**	**1.0000e-005**	**0.4692**

3.7 Architectural Coating - 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					
Archit. Coating	0.4902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.4912**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	3.0000e-004	2.0000e-004	2.6200e-003	1.0000e-005	9.0000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7131	0.7131	2.0000e-005	2.0000e-005	0.7195
Total	**3.0000e-004**	**2.0000e-004**	**2.6200e-003**	**1.0000e-005**	**9.0000e-004**	**0.0000**	**9.1000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.7131**	**0.7131**	**2.0000e-005**	**2.0000e-005**	**0.7195**

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	0.4902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.4912**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	3.0000e-004	2.0000e-004	2.6200e-003	1.0000e-005	9.0000e-004	0.0000	9.1000e-004	2.4000e-004	0.0000	2.4000e-004	0.0000	0.7131	0.7131	2.0000e-005	2.0000e-005	0.7195
Total	**3.0000e-004**	**2.0000e-004**	**2.6200e-003**	**1.0000e-005**	**9.0000e-004**	**0.0000**	**9.1000e-004**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.7131**	**0.7131**	**2.0000e-005**	**2.0000e-005**	**0.7195**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2146	1.6056	10.3109	0.0192	1.8926	0.0176	1.9102	0.5070	0.0165	0.5235	0.0000	1,803.0820	1,803.0820	0.1297	0.1030	1,837.0035
Unmitigated	1.2146	1.6056	10.3109	0.0192	1.8926	0.0176	1.9102	0.5070	0.0165	0.5235	0.0000	1,803.0820	1,803.0820	0.1297	0.1030	1,837.0035

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	430.3666	430.3666	0.0301	3.6500e-003	432.2058
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	430.3666	430.3666	0.0301	3.6500e-003	432.2058
NaturalGas Mitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
NaturalGas Unmitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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
Medical Office Building	1.63e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
Total		**8.7900e-003**	**0.0799**	**0.0671**	**4.8000e-004**		**6.0700e-003**	**6.0700e-003**		**6.0700e-003**	**6.0700e-003**	**0.0000**	**86.9830**	**86.9830**	**1.6700e-003**	**1.5900e-003**	**87.4999**

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					
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
Medical Office Building	1.63e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
Total		**8.7900e-003**	**0.0799**	**0.0671**	**4.8000e-004**		**6.0700e-003**	**6.0700e-003**		**6.0700e-003**	**6.0700e-003**	**0.0000**	**86.9830**	**86.9830**	**1.6700e-003**	**1.5900e-003**	**87.4999**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.04425e+006	223.5590	0.0156	1.8900e-003	224.5144
Medical Office Building	966000	206.8076	0.0145	1.7500e-003	207.6914
Total		**430.3666**	**0.0301**	**3.6400e-003**	**432.2058**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.04425e+006	223.5590	0.0156	1.8900e-003	224.5144
Medical Office Building	966000	206.8076	0.0145	1.7500e-003	207.6914
Total		**430.3666**	**0.0301**	**3.6400e-003**	**432.2058**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	0.4521	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Unmitigated	0.4521	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003

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	0.0490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Total	**0.4521**	**1.0000e-005**	**9.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.8000e-003**	**1.8000e-003**	**0.0000**	**0.0000**	**1.9200e-003**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-003	1.8000e-003	0.0000	0.0000	1.9200e-003
Total	**0.4521**	**1.0000e-005**	**9.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.8000e-003**	**1.8000e-003**	**0.0000**	**0.0000**	**1.9200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.3078	0.4100	9.7900e-003	33.4766
Unmitigated	20.3078	0.4100	9.7900e-003	33.4766

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	12.5481 / 2.39011	20.3078	0.4100	9.7900e-003	33.4766
Total		**20.3078**	**0.4100**	**9.7900e-003**	**33.4766**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	12.5481 / 2.39011	20.3078	0.4100	9.7900e-003	33.4766
Total		**20.3078**	**0.4100**	**9.7900e-003**	**33.4766**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	219.2302	12.9561	0.0000	543.1336
Unmitigated	219.2302	12.9561	0.0000	543.1336

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Total		**219.2302**	**12.9561**	**0.0000**	**543.1336**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Total		**219.2302**	**12.9561**	**0.0000**	**543.1336**

9.0 Operational Offroad

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sutter Parking Garage Expansion & MOB 10

Placer-Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.64	100,000.00	0
Enclosed Parking with Elevator	1.00	1000sqft	0.94	191,957.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/ND's model.

Land Use - See SWAPE comment on "Underestimated Land Use Size"

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,000.00	191,957.00
tblLandUse	LotAcreage	2.30	1.64
tblLandUse	LotAcreage	0.02	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.3035	17.2564	18.2093	0.0435	7.1647	0.8384	7.9074	3.4465	0.7834	4.1298	0.0000	4,213.1239	4,213.1239	0.7698	0.1818	4,279.0322
2023	98.2973	15.9070	17.7852	0.0429	1.2535	0.6314	1.8849	0.3399	0.6049	0.9447	0.0000	4,154.7007	4,154.7007	0.5447	0.1748	4,218.2088
Maximum	**98.2973**	**17.2564**	**18.2093**	**0.0435**	**7.1647**	**0.8384**	**7.9074**	**3.4465**	**0.7834**	**4.1298**	**0.0000**	**4,213.1239**	**4,213.1239**	**0.7698**	**0.1818**	**4,279.0322**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.3035	17.2564	18.2093	0.0435	7.1647	0.8384	7.9074	3.4465	0.7834	4.1298	0.0000	4,213.1239	4,213.1239	0.7698	0.1818	4,279.0322
2023	98.2973	15.9070	17.7852	0.0429	1.2535	0.6314	1.8849	0.3399	0.6049	0.9447	0.0000	4,154.7007	4,154.7007	0.5447	0.1748	4,218.2088
Maximum	**98.2973**	**17.2564**	**18.2093**	**0.0435**	**7.1647**	**0.8384**	**7.9074**	**3.4465**	**0.7834**	**4.1298**	**0.0000**	**4,213.1239**	**4,213.1239**	**0.7698**	**0.1818**	**4,279.0322**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	10.6656	10.7165	75.3683	0.1484	14.3949	0.1280	14.5229	3.8422	0.1201	3.9623		15,337.5469	15,337.5469	0.9500	0.7871	15,595.8454
Total	**13.1913**	**11.1544**	**75.7464**	**0.1510**	**14.3949**	**0.1613**	**14.5562**	**3.8422**	**0.1534**	**3.9956**		**15,862.9518**	**15,862.9518**	**0.9601**	**0.7967**	**16,124.3738**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	10.6656	10.7165	75.3683	0.1484	14.3949	0.1280	14.5229	3.8422	0.1201	3.9623		15,337.5469	15,337.5469	0.9500	0.7871	15,595.8454
Total	**13.1913**	**11.1544**	**75.7464**	**0.1510**	**14.3949**	**0.1613**	**14.5562**	**3.8422**	**0.1534**	**3.9956**		**15,862.9518**	**15,862.9518**	**0.9601**	**0.7967**	**16,124.3738**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/23/2022	4/19/2022	5	20	
2	Site Preparation	Site Preparation	4/20/2022	4/22/2022	5	3	
3	Grading	Grading	4/23/2022	5/2/2022	5	6	
4	Building Construction	Building Construction	5/3/2022	3/6/2023	5	220	
5	Paving	Paving	3/7/2023	3/20/2023	5	10	
6	Architectural Coating	Architectural Coating	3/21/2023	4/3/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,517 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0411	0.0224	0.3567	9.7000e-004	0.1068	5.4000e-004	0.1073	0.0283	5.0000e-004	0.0288		99.0622	99.0622	2.6400e-003	2.4300e-003	99.8520
Total	**0.0411**	**0.0224**	**0.3567**	**9.7000e-004**	**0.1068**	**5.4000e-004**	**0.1073**	**0.0283**	**5.0000e-004**	**0.0288**		**99.0622**	**99.0622**	**2.6400e-003**	**2.4300e-003**	**99.8520**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0411	0.0224	0.3567	9.7000e-004	0.1068	5.4000e-004	0.1073	0.0283	5.0000e-004	0.0288		99.0622	99.0622	2.6400e-003	2.4300e-003	99.8520
Total	**0.0411**	**0.0224**	**0.3567**	**9.7000e-004**	**0.1068**	**5.4000e-004**	**0.1073**	**0.0283**	**5.0000e-004**	**0.0288**		**99.0622**	**99.0622**	**2.6400e-003**	**2.4300e-003**	**99.8520**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2195	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.9614	60.9614	1.6200e-003	1.4900e-003	61.4474
Total	**0.0253**	**0.0138**	**0.2195**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.9614**	**60.9614**	**1.6200e-003**	**1.4900e-003**	**61.4474**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2195	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.9614	60.9614	1.6200e-003	1.4900e-003	61.4474
Total	**0.0253**	**0.0138**	**0.2195**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.9614**	**60.9614**	**1.6200e-003**	**1.4900e-003**	**61.4474**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2744	7.5000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		76.2017	76.2017	2.0300e-003	1.8700e-003	76.8092
Total	**0.0316**	**0.0173**	**0.2744**	**7.5000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**76.2017**	**76.2017**	**2.0300e-003**	**1.8700e-003**	**76.8092**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2744	7.5000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		76.2017	76.2017	2.0300e-003	1.8700e-003	76.8092
Total	**0.0316**	**0.0173**	**0.2744**	**7.5000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**76.2017**	**76.2017**	**2.0300e-003**	**1.8700e-003**	**76.8092**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0912	2.4574	0.7559	0.0101	0.3253	0.0236	0.3489	0.0937	0.0226	0.1162		1,062.7634	1,062.7634	4.6300e-003	0.1607	1,110.7651
Worker	0.3568	0.1950	3.1002	8.4600e-003	0.9283	4.6900e-003	0.9330	0.2462	4.3200e-003	0.2505		861.0793	861.0793	0.0229	0.0211	867.9441
Total	**0.4480**	**2.6524**	**3.8560**	**0.0185**	**1.2535**	**0.0283**	**1.2818**	**0.3399**	**0.0269**	**0.3668**		**1,923.8426**	**1,923.8426**	**0.0276**	**0.1818**	**1,978.7092**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0912	2.4574	0.7559	0.0101	0.3253	0.0236	0.3489	0.0937	0.0226	0.1162		1,062.7634	1,062.7634	4.6300e-003	0.1607	1,110.7651
Worker	0.3568	0.1950	3.1002	8.4600e-003	0.9283	4.6900e-003	0.9330	0.2462	4.3200e-003	0.2505		861.0793	861.0793	0.0229	0.0211	867.9441
Total	**0.4480**	**2.6524**	**3.8560**	**0.0185**	**1.2535**	**0.0283**	**1.2818**	**0.3399**	**0.0269**	**0.3668**		**1,923.8426**	**1,923.8426**	**0.0276**	**0.1818**	**1,978.7092**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.1098	0.6915	9.7200e-003	0.3253	0.0133	0.3386	0.0937	0.0127	0.1064		1,026.5894	1,026.5894	3.0100e-003	0.1552	1,072.8997
Worker	0.3316	0.1733	2.8792	8.1900e-003	0.9283	4.4500e-003	0.9327	0.2462	4.1000e-003	0.2503		838.5880	838.5880	0.0208	0.0197	844.9612
Total	**0.3887**	**2.2830**	**3.5707**	**0.0179**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0168**	**0.3567**		**1,865.1774**	**1,865.1774**	**0.0238**	**0.1748**	**1,917.8609**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.1098	0.6915	9.7200e-003	0.3253	0.0133	0.3386	0.0937	0.0127	0.1064		1,026.5894	1,026.5894	3.0100e-003	0.1552	1,072.8997
Worker	0.3316	0.1733	2.8792	8.1900e-003	0.9283	4.4500e-003	0.9327	0.2462	4.1000e-003	0.2503		838.5880	838.5880	0.0208	0.0197	844.9612
Total	**0.3887**	**2.2830**	**3.5707**	**0.0179**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0168**	**0.3567**		**1,865.1774**	**1,865.1774**	**0.0238**	**0.1748**	**1,917.8609**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0440	0.0230	0.3822	1.0900e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		111.3170	111.3170	2.7500e-003	2.6100e-003	112.1630
Total	**0.0440**	**0.0230**	**0.3822**	**1.0900e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**111.3170**	**111.3170**	**2.7500e-003**	**2.6100e-003**	**112.1630**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0440	0.0230	0.3822	1.0900e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		111.3170	111.3170	2.7500e-003	2.6100e-003	112.1630
Total	**0.0440**	**0.0230**	**0.3822**	**1.0900e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**111.3170**	**111.3170**	**2.7500e-003**	**2.6100e-003**	**112.1630**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	98.0381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**98.2298**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0675	0.0353	0.5860	1.6700e-003	0.1889	9.1000e-004	0.1899	0.0501	8.3000e-004	0.0510		170.6861	170.6861	4.2200e-003	4.0000e-003	171.9833
Total	**0.0675**	**0.0353**	**0.5860**	**1.6700e-003**	**0.1889**	**9.1000e-004**	**0.1899**	**0.0501**	**8.3000e-004**	**0.0510**		**170.6861**	**170.6861**	**4.2200e-003**	**4.0000e-003**	**171.9833**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	98.0381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**98.2298**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0675	0.0353	0.5860	1.6700e-003	0.1889	9.1000e-004	0.1899	0.0501	8.3000e-004	0.0510		170.6861	170.6861	4.2200e-003	4.0000e-003	171.9833
Total	**0.0675**	**0.0353**	**0.5860**	**1.6700e-003**	**0.1889**	**9.1000e-004**	**0.1899**	**0.0501**	**8.3000e-004**	**0.0510**		**170.6861**	**170.6861**	**4.2200e-003**	**4.0000e-003**	**171.9833**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.6656	10.7165	75.3683	0.1484	14.3949	0.1280	14.5229	3.8422	0.1201	3.9623		15,337.5469	15,337.5469	0.9500	0.7871	15,595.8454
Unmitigated	10.6656	10.7165	75.3683	0.1484	14.3949	0.1280	14.5229	3.8422	0.1201	3.9623		15,337.5469	15,337.5469	0.9500	0.7871	15,595.8454

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
NaturalGas Unmitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4465.75	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4.46575	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

6.0 Area Detail

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Unmitigated	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Total	**2.4775**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0221**	**0.0221**	**6.0000e-005**		**0.0236**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Total	**2.4775**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0221**	**0.0221**	**6.0000e-005**		**0.0236**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sutter Parking Garage Expansion & MOB 10

Placer-Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.64	100,000.00	0
Enclosed Parking with Elevator	1.00	1000sqft	0.94	191,957.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the IS/ND's model.

Land Use - See SWAPE comment on "Underestimated Land Use Size"

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,000.00	191,957.00
tblLandUse	LotAcreage	2.30	1.64
tblLandUse	LotAcreage	0.02	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2748	17.4815	17.9573	0.0427	7.1647	0.8384	7.9074	3.4465	0.7834	4.1298	0.0000	4,129.1289	4,129.1289	0.7701	0.1855	4,196.2243
2023	98.2926	16.1083	17.5568	0.0422	1.2535	0.6314	1.8850	0.3399	0.6049	0.9448	0.0000	4,074.1591	4,074.1591	0.5452	0.1784	4,138.8161
Maximum	**98.2926**	**17.4815**	**17.9573**	**0.0427**	**7.1647**	**0.8384**	**7.9074**	**3.4465**	**0.7834**	**4.1298**	**0.0000**	**4,129.1289**	**4,129.1289**	**0.7701**	**0.1855**	**4,196.2243**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2748	17.4815	17.9573	0.0427	7.1647	0.8384	7.9074	3.4465	0.7834	4.1298	0.0000	4,129.1289	4,129.1289	0.7701	0.1855	4,196.2243
2023	98.2926	16.1083	17.5568	0.0422	1.2535	0.6314	1.8850	0.3399	0.6049	0.9448	0.0000	4,074.1591	4,074.1591	0.5452	0.1784	4,138.8161
Maximum	**98.2926**	**17.4815**	**17.9573**	**0.0427**	**7.1647**	**0.8384**	**7.9074**	**3.4465**	**0.7834**	**4.1298**	**0.0000**	**4,129.1289**	**4,129.1289**	**0.7701**	**0.1855**	**4,196.2243**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	8.6062	12.3269	80.7797	0.1380	14.3949	0.1281	14.5230	3.8422	0.1202	3.9624		14,268.4204	14,268.4204	1.1285	0.8600	14,552.8974
Total	**11.1319**	**12.7648**	**81.1578**	**0.1407**	**14.3949**	**0.1614**	**14.5563**	**3.8422**	**0.1535**	**3.9957**		**14,793.8253**	**14,793.8253**	**1.1386**	**0.8696**	**15,081.4258**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	8.6062	12.3269	80.7797	0.1380	14.3949	0.1281	14.5230	3.8422	0.1202	3.9624		14,268.4204	14,268.4204	1.1285	0.8600	14,552.8974
Total	**11.1319**	**12.7648**	**81.1578**	**0.1407**	**14.3949**	**0.1614**	**14.5563**	**3.8422**	**0.1535**	**3.9957**		**14,793.8253**	**14,793.8253**	**1.1386**	**0.8696**	**15,081.4258**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/23/2022	4/19/2022	5	20	
2	Site Preparation	Site Preparation	4/20/2022	4/22/2022	5	3	
3	Grading	Grading	4/23/2022	5/2/2022	5	6	
4	Building Construction	Building Construction	5/3/2022	3/6/2023	5	220	
5	Paving	Paving	3/7/2023	3/20/2023	5	10	
6	Architectural Coating	Architectural Coating	3/21/2023	4/3/2023	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,517 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0381	0.0280	0.3242	8.8000e-004	0.1068	5.4000e-004	0.1073	0.0283	5.0000e-004	0.0288		89.2573	89.2573	3.0900e-003	2.8100e-003	90.1730
Total	**0.0381**	**0.0280**	**0.3242**	**8.8000e-004**	**0.1068**	**5.4000e-004**	**0.1073**	**0.0283**	**5.0000e-004**	**0.0288**		**89.2573**	**89.2573**	**3.0900e-003**	**2.8100e-003**	**90.1730**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**		**0.8379**	**0.8379**		**0.7829**	**0.7829**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0381	0.0280	0.3242	8.8000e-004	0.1068	5.4000e-004	0.1073	0.0283	5.0000e-004	0.0288		89.2573	89.2573	3.0900e-003	2.8100e-003	90.1730
Total	**0.0381**	**0.0280**	**0.3242**	**8.8000e-004**	**0.1068**	**5.4000e-004**	**0.1073**	**0.0283**	**5.0000e-004**	**0.0288**		**89.2573**	**89.2573**	**3.0900e-003**	**2.8100e-003**	**90.1730**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1995	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.9275	54.9275	1.9000e-003	1.7300e-003	55.4911
Total	**0.0235**	**0.0172**	**0.1995**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.9275**	**54.9275**	**1.9000e-003**	**1.7300e-003**	**55.4911**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1995	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.9275	54.9275	1.9000e-003	1.7300e-003	55.4911
Total	**0.0235**	**0.0172**	**0.1995**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.9275**	**54.9275**	**1.9000e-003**	**1.7300e-003**	**55.4911**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2494	6.7000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.6594	68.6594	2.3800e-003	2.1600e-003	69.3639
Total	**0.0293**	**0.0215**	**0.2494**	**6.7000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**68.6594**	**68.6594**	**2.3800e-003**	**2.1600e-003**	**69.3639**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2494	6.7000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.6594	68.6594	2.3800e-003	2.1600e-003	69.3639
Total	**0.0293**	**0.0215**	**0.2494**	**6.7000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**68.6594**	**68.6594**	**2.3800e-003**	**2.1600e-003**	**69.3639**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0878	2.6341	0.7860	0.0101	0.3253	0.0237	0.3490	0.0937	0.0227	0.1163		1,063.9961	1,063.9961	4.4800e-003	0.1610	1,112.0899
Worker	0.3315	0.2434	2.8181	7.6300e-003	0.9283	4.6900e-003	0.9330	0.2462	4.3200e-003	0.2505		775.8515	775.8515	0.0269	0.0245	783.8115
Total	**0.4193**	**2.8775**	**3.6041**	**0.0177**	**1.2535**	**0.0284**	**1.2819**	**0.3399**	**0.0270**	**0.3669**		**1,839.8477**	**1,839.8477**	**0.0313**	**0.1855**	**1,895.9014**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0878	2.6341	0.7860	0.0101	0.3253	0.0237	0.3490	0.0937	0.0227	0.1163		1,063.9961	1,063.9961	4.4800e-003	0.1610	1,112.0899
Worker	0.3315	0.2434	2.8181	7.6300e-003	0.9283	4.6900e-003	0.9330	0.2462	4.3200e-003	0.2505		775.8515	775.8515	0.0269	0.0245	783.8115
Total	**0.4193**	**2.8775**	**3.6041**	**0.0177**	**1.2535**	**0.0284**	**1.2819**	**0.3399**	**0.0270**	**0.3669**		**1,839.8477**	**1,839.8477**	**0.0313**	**0.1855**	**1,895.9014**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0531	2.2683	0.7168	9.7400e-003	0.3253	0.0134	0.3386	0.0937	0.0128	0.1064		1,028.8526	1,028.8526	2.8200e-003	0.1556	1,075.2982
Worker	0.3085	0.2161	2.6255	7.3800e-003	0.9283	4.4500e-003	0.9327	0.2462	4.1000e-003	0.2503		755.7832	755.7832	0.0244	0.0227	763.1700
Total	**0.3616**	**2.4844**	**3.3423**	**0.0171**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0169**	**0.3568**		**1,784.6358**	**1,784.6358**	**0.0272**	**0.1784**	**1,838.4683**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0531	2.2683	0.7168	9.7400e-003	0.3253	0.0134	0.3386	0.0937	0.0128	0.1064		1,028.8526	1,028.8526	2.8200e-003	0.1556	1,075.2982
Worker	0.3085	0.2161	2.6255	7.3800e-003	0.9283	4.4500e-003	0.9327	0.2462	4.1000e-003	0.2503		755.7832	755.7832	0.0244	0.0227	763.1700
Total	**0.3616**	**2.4844**	**3.3423**	**0.0171**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0169**	**0.3568**		**1,784.6358**	**1,784.6358**	**0.0272**	**0.1784**	**1,838.4683**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0287	0.3485	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		100.3252	100.3252	3.2400e-003	3.0200e-003	101.3058
Total	**0.0410**	**0.0287**	**0.3485**	**9.8000e-004**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**100.3252**	**100.3252**	**3.2400e-003**	**3.0200e-003**	**101.3058**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0287	0.3485	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		100.3252	100.3252	3.2400e-003	3.0200e-003	101.3058
Total	**0.0410**	**0.0287**	**0.3485**	**9.8000e-004**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**100.3252**	**100.3252**	**3.2400e-003**	**3.0200e-003**	**101.3058**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	98.0381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**98.2298**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0440	0.5344	1.5000e-003	0.1889	9.1000e-004	0.1899	0.0501	8.3000e-004	0.0510		153.8320	153.8320	4.9700e-003	4.6300e-003	155.3355
Total	**0.0628**	**0.0440**	**0.5344**	**1.5000e-003**	**0.1889**	**9.1000e-004**	**0.1899**	**0.0501**	**8.3000e-004**	**0.0510**		**153.8320**	**153.8320**	**4.9700e-003**	**4.6300e-003**	**155.3355**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	98.0381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**98.2298**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0440	0.5344	1.5000e-003	0.1889	9.1000e-004	0.1899	0.0501	8.3000e-004	0.0510		153.8320	153.8320	4.9700e-003	4.6300e-003	155.3355
Total	**0.0628**	**0.0440**	**0.5344**	**1.5000e-003**	**0.1889**	**9.1000e-004**	**0.1899**	**0.0501**	**8.3000e-004**	**0.0510**		**153.8320**	**153.8320**	**4.9700e-003**	**4.6300e-003**	**155.3355**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.6062	12.3269	80.7797	0.1380	14.3949	0.1281	14.5230	3.8422	0.1202	3.9624		14,268.4204	14,268.4204	1.1285	0.8600	14,552.8974
Unmitigated	8.6062	12.3269	80.7797	0.1380	14.3949	0.1281	14.5230	3.8422	0.1202	3.9624		14,268.4204	14,268.4204	1.1285	0.8600	14,552.8974

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
NaturalGas Unmitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4465.75	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4.46575	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Unmitigated	2.4775	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Total	**2.4775**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0221**	**0.0221**	**6.0000e-005**		**0.0236**

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0103	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0221	0.0221	6.0000e-005		0.0236
Total	**2.4775**	**9.0000e-005**	**0.0103**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0221**	**0.0221**	**6.0000e-005**		**0.0236**

7.0 Water Detail

7.1 Mitigation Measures Water

Sutter Parking Garage Expansion & MOB 10 - Placer-Sacramento County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sutter Parking Garage Expansion & MOB 7

Placer County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.59	100,000.00	0
Enclosed Parking with Elevator	192.00	1000sqft	0.94	192,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage changed based on submitted plans.

Area Mitigation -

Architectural Coating -

Construction Phase - Entire site will be graded and prepped as one phase, but building construction will occur in two phases. Duration of building construction and finishes was extended to account for this.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	PhaseEndDate	4/25/2023	5/2/2023
tblConstructionPhase	PhaseEndDate	3/28/2023	5/9/2023

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	2.30	1.59
tblLandUse	LotAcreage	4.41	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.3034	17.2563	18.2050	0.0435	7.1647	0.7427	7.9074	3.4465	0.7000	4.1298	0.0000	4,207.5922	4,207.5922	0.7698	0.1818	4,273.5005
2023	67.7210	24.5396	29.8426	0.0619	1.4425	1.0658	2.4425	0.3900	1.0056	1.3782	0.0000	5,964.2537	5,964.2537	1.0014	0.1788	6,042.1566
Maximum	**67.7210**	**24.5396**	**29.8426**	**0.0619**	**7.1647**	**1.0658**	**7.9074**	**3.4465**	**1.0056**	**4.1298**	**0.0000**	**5,964.2537**	**5,964.2537**	**1.0014**	**0.1818**	**6,042.1566**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.3034	17.2563	18.2050	0.0435	7.1647	0.7427	7.9074	3.4465	0.7000	4.1298	0.0000	4,207.5922	4,207.5922	0.7698	0.1818	4,273.5005
2023	67.7210	24.5396	29.8426	0.0619	1.4425	1.0658	2.4425	0.3900	1.0056	1.3782	0.0000	5,964.2537	5,964.2537	1.0014	0.1788	6,042.1566
Maximum	**67.7210**	**24.5396**	**29.8426**	**0.0619**	**7.1647**	**1.0658**	**7.9074**	**3.4465**	**1.0056**	**4.1298**	**0.0000**	**5,964.2537**	**5,964.2537**	**1.0014**	**0.1818**	**6,042.1566**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	lb/day										lb/day					
Area	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	10.6605	10.7131	75.1778	0.1484	14.3949	0.1277	14.5225	3.8422	0.1198	3.9620		15,099.9963	15,099.9963	0.9500	0.7871	15,358.2948
Total	**13.1881**	**11.1512**	**75.5754**	**0.1510**	**14.3949**	**0.1610**	**14.5559**	**3.8422**	**0.1532**	**3.9954**		**15,625.4429**	**15,625.4429**	**0.9603**	**0.7967**	**15,886.8677**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	10.6605	10.7131	75.1778	0.1484	14.3949	0.1277	14.5225	3.8422	0.1198	3.9620		15,099.9963	15,099.9963	0.9500	0.7871	15,358.2948
Total	**13.1881**	**11.1512**	**75.5754**	**0.1510**	**14.3949**	**0.1610**	**14.5559**	**3.8422**	**0.1532**	**3.9954**		**15,625.4429**	**15,625.4429**	**0.9603**	**0.7967**	**15,886.8677**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/12/2022	5/16/2022	5	3	
2	Grading	Grading	5/17/2022	5/24/2022	5	6	
3	Building Construction	Building Construction	5/25/2022	5/9/2023	5	250	
4	Paving	Paving	3/29/2023	4/11/2023	5	10	
5	Architectural Coating	Architectural Coating	4/12/2023	5/2/2023	5	15	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,520 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2192	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.5697	60.5697	1.6200e-003	1.4900e-003	61.0558
Total	**0.0253**	**0.0138**	**0.2192**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.5697**	**60.5697**	**1.6200e-003**	**1.4900e-003**	**61.0558**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2192	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.5697	60.5697	1.6200e-003	1.4900e-003	61.0558
Total	**0.0253**	**0.0138**	**0.2192**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.5697**	**60.5697**	**1.6200e-003**	**1.4900e-003**	**61.0558**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2740	7.5000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		75.7122	75.7122	2.0300e-003	1.8700e-003	76.3197
Total	**0.0316**	**0.0173**	**0.2740**	**7.5000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**75.7122**	**75.7122**	**2.0300e-003**	**1.8700e-003**	**76.3197**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2740	7.5000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		75.7122	75.7122	2.0300e-003	1.8700e-003	76.3197
Total	**0.0316**	**0.0173**	**0.2740**	**7.5000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**75.7122**	**75.7122**	**2.0300e-003**	**1.8700e-003**	**76.3197**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0912	2.4574	0.7559	0.0101	0.3253	0.0236	0.3489	0.0937	0.0226	0.1162		1,062.7634	1,062.7634	4.6300e-003	0.1607	1,110.7651
Worker	0.3567	0.1949	3.0959	8.4600e-003	0.9283	4.6800e-003	0.9330	0.2462	4.3100e-003	0.2505		855.5476	855.5476	0.0229	0.0211	862.4124
Total	**0.4479**	**2.6523**	**3.8517**	**0.0185**	**1.2535**	**0.0283**	**1.2818**	**0.3399**	**0.0269**	**0.3668**		**1,918.3109**	**1,918.3109**	**0.0276**	**0.1818**	**1,973.1776**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0912	2.4574	0.7559	0.0101	0.3253	0.0236	0.3489	0.0937	0.0226	0.1162		1,062.7634	1,062.7634	4.6300e-003	0.1607	1,110.7651
Worker	0.3567	0.1949	3.0959	8.4600e-003	0.9283	4.6800e-003	0.9330	0.2462	4.3100e-003	0.2505		855.5476	855.5476	0.0229	0.0211	862.4124
Total	**0.4479**	**2.6523**	**3.8517**	**0.0185**	**1.2535**	**0.0283**	**1.2818**	**0.3399**	**0.0269**	**0.3668**		**1,918.3109**	**1,918.3109**	**0.0276**	**0.1818**	**1,973.1776**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.1098	0.6915	9.7200e-003	0.3253	0.0133	0.3386	0.0937	0.0127	0.1064		1,026.5894	1,026.5894	3.0100e-003	0.1552	1,072.8997
Worker	0.3314	0.1731	2.8714	8.1900e-003	0.9283	4.4400e-003	0.9327	0.2462	4.0900e-003	0.2503		828.2092	828.2092	0.0208	0.0197	834.5823
Total	**0.3885**	**2.2829**	**3.5630**	**0.0179**	**1.2535**	**0.0177**	**1.2713**	**0.3399**	**0.0168**	**0.3567**		**1,854.7985**	**1,854.7985**	**0.0238**	**0.1748**	**1,907.4821**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0571	2.1098	0.6915	9.7200e-003	0.3253	0.0133	0.3386	0.0937	0.0127	0.1064		1,026.5894	1,026.5894	3.0100e-003	0.1552	1,072.8997
Worker	0.3314	0.1731	2.8714	8.1900e-003	0.9283	4.4400e-003	0.9327	0.2462	4.0900e-003	0.2503		828.2092	828.2092	0.0208	0.0197	834.5823
Total	**0.3885**	**2.2829**	**3.5630**	**0.0179**	**1.2535**	**0.0177**	**1.2713**	**0.3399**	**0.0168**	**0.3567**		**1,854.7985**	**1,854.7985**	**0.0238**	**0.1748**	**1,907.4821**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0440	0.0230	0.3812	1.0900e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		109.9393	109.9393	2.7500e-003	2.6100e-003	110.7853
Total	**0.0440**	**0.0230**	**0.3812**	**1.0900e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**109.9393**	**109.9393**	**2.7500e-003**	**2.6100e-003**	**110.7853**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0440	0.0230	0.3812	1.0900e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		109.9393	109.9393	2.7500e-003	2.6100e-003	110.7853
Total	**0.0440**	**0.0230**	**0.3812**	**1.0900e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**109.9393**	**109.9393**	**2.7500e-003**	**2.6100e-003**	**110.7853**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.3597					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**65.5513**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0675	0.0352	0.5845	1.6700e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		168.5736	168.5736	4.2200e-003	4.0000e-003	169.8707
Total	**0.0675**	**0.0352**	**0.5845**	**1.6700e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**168.5736**	**168.5736**	**4.2200e-003**	**4.0000e-003**	**169.8707**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.3597					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**65.5513**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0675	0.0352	0.5845	1.6700e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		168.5736	168.5736	4.2200e-003	4.0000e-003	169.8707
Total	**0.0675**	**0.0352**	**0.5845**	**1.6700e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**168.5736**	**168.5736**	**4.2200e-003**	**4.0000e-003**	**169.8707**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

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	lb/day										lb/day					
Mitigated	10.6605	10.7131	75.1778	0.1484	14.3949	0.1277	14.5225	3.8422	0.1198	3.9620		15,099.9963	15,099.9963	0.9500	0.7871	15,358.2948
Unmitigated	10.6605	10.7131	75.1778	0.1484	14.3949	0.1277	14.5225	3.8422	0.1198	3.9620		15,099.9963	15,099.9963	0.9500	0.7871	15,358.2948

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
NaturalGas Unmitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048

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	lb/day										lb/day					
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
Medical Office Building	4465.75	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4.46575	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

6.0 Area Detail

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Unmitigated	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7500e-003	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Total	**2.4794**	**2.7000e-004**	**0.0298**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0639**	**0.0639**	**1.7000e-004**		**0.0681**

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	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7500e-003	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Total	**2.4794**	**2.7000e-004**	**0.0298**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0639**	**0.0639**	**1.7000e-004**		**0.0681**

7.0 Water Detail

7.1 Mitigation Measures Water

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sutter Parking Garage Expansion & MOB 7

Placer County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.59	100,000.00	0
Enclosed Parking with Elevator	192.00	1000sqft	0.94	192,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage changed based on submitted plans.

Area Mitigation -

Architectural Coating -

Construction Phase - Entire site will be graded and prepped as one phase, but building construction will occur in two phases. Duration of building construction and finishes was extended to account for this.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	PhaseEndDate	4/25/2023	5/2/2023
tblConstructionPhase	PhaseEndDate	3/28/2023	5/9/2023

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	2.30	1.59
tblLandUse	LotAcreage	4.41	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2747	17.4814	17.9534	0.0427	7.1647	0.7427	7.9074	3.4465	0.7001	4.1298	0.0000	4,124.1477	4,124.1477	0.7701	0.1855	4,191.2431
2023	67.6891	24.7466	29.5813	0.0610	1.4425	1.0658	2.4426	0.3900	1.0057	1.3783	0.0000	5,873.8874	5,873.8874	1.0054	0.1830	5,953.0738
Maximum	**67.6891**	**24.7466**	**29.5813**	**0.0610**	**7.1647**	**1.0658**	**7.9074**	**3.4465**	**1.0057**	**4.1298**	**0.0000**	**5,873.8874**	**5,873.8874**	**1.0054**	**0.1855**	**5,953.0738**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2747	17.4814	17.9534	0.0427	7.1647	0.7427	7.9074	3.4465	0.7001	4.1298	0.0000	4,124.1477	4,124.1477	0.7701	0.1855	4,191.2431
2023	67.6891	24.7466	29.5813	0.0610	1.4425	1.0658	2.4426	0.3900	1.0057	1.3783	0.0000	5,873.8874	5,873.8874	1.0054	0.1830	5,953.0738
Maximum	**67.6891**	**24.7466**	**29.5813**	**0.0610**	**7.1647**	**1.0658**	**7.9074**	**3.4465**	**1.0057**	**4.1298**	**0.0000**	**5,873.8874**	**5,873.8874**	**1.0054**	**0.1855**	**5,953.0738**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

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	lb/day										lb/day					
Area	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	8.6021	12.3226	80.5858	0.1380	14.3949	0.1278	14.5227	3.8422	0.1199	3.9621		14,052.8125	14,052.8125	1.1285	0.8600	14,337.2895
Total	**11.1297**	**12.7607**	**80.9833**	**0.1407**	**14.3949**	**0.1611**	**14.5560**	**3.8422**	**0.1533**	**3.9955**		**14,578.2591**	**14,578.2591**	**1.1387**	**0.8696**	**14,865.8624**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Energy	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Mobile	8.6021	12.3226	80.5858	0.1380	14.3949	0.1278	14.5227	3.8422	0.1199	3.9621		14,052.8125	14,052.8125	1.1285	0.8600	14,337.2895
Total	**11.1297**	**12.7607**	**80.9833**	**0.1407**	**14.3949**	**0.1611**	**14.5560**	**3.8422**	**0.1533**	**3.9955**		**14,578.2591**	**14,578.2591**	**1.1387**	**0.8696**	**14,865.8624**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/12/2022	5/16/2022	5	3	
2	Grading	Grading	5/17/2022	5/24/2022	5	6	
3	Building Construction	Building Construction	5/25/2022	5/9/2023	5	250	
4	Paving	Paving	3/29/2023	4/11/2023	5	10	
5	Architectural Coating	Architectural Coating	4/12/2023	5/2/2023	5	15	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,520 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1992	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.5749	54.5749	1.9000e-003	1.7300e-003	55.1384
Total	**0.0235**	**0.0172**	**0.1992**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.5749**	**54.5749**	**1.9000e-003**	**1.7300e-003**	**55.1384**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1992	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.5749	54.5749	1.9000e-003	1.7300e-003	55.1384
Total	**0.0235**	**0.0172**	**0.1992**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.5749**	**54.5749**	**1.9000e-003**	**1.7300e-003**	**55.1384**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2490	6.7000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.2186	68.2186	2.3800e-003	2.1600e-003	68.9230
Total	**0.0293**	**0.0215**	**0.2490**	**6.7000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**68.2186**	**68.2186**	**2.3800e-003**	**2.1600e-003**	**68.9230**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2490	6.7000e-004	0.0822	4.1000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.2186	68.2186	2.3800e-003	2.1600e-003	68.9230
Total	**0.0293**	**0.0215**	**0.2490**	**6.7000e-004**	**0.0822**	**4.1000e-004**	**0.0826**	**0.0218**	**3.8000e-004**	**0.0222**		**68.2186**	**68.2186**	**2.3800e-003**	**2.1600e-003**	**68.9230**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0878	2.6341	0.7860	0.0101	0.3253	0.0237	0.3490	0.0937	0.0227	0.1163		1,063.9961	1,063.9961	4.4800e-003	0.1610	1,112.0899
Worker	0.3314	0.2433	2.8142	7.6300e-003	0.9283	4.6800e-003	0.9330	0.2462	4.3100e-003	0.2505		770.8703	770.8703	0.0269	0.0245	778.8302
Total	**0.4192**	**2.8774**	**3.6001**	**0.0177**	**1.2535**	**0.0284**	**1.2819**	**0.3399**	**0.0270**	**0.3668**		**1,834.8664**	**1,834.8664**	**0.0313**	**0.1855**	**1,890.9201**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0878	2.6341	0.7860	0.0101	0.3253	0.0237	0.3490	0.0937	0.0227	0.1163		1,063.9961	1,063.9961	4.4800e-003	0.1610	1,112.0899
Worker	0.3314	0.2433	2.8142	7.6300e-003	0.9283	4.6800e-003	0.9330	0.2462	4.3100e-003	0.2505		770.8703	770.8703	0.0269	0.0245	778.8302
Total	**0.4192**	**2.8774**	**3.6001**	**0.0177**	**1.2535**	**0.0284**	**1.2819**	**0.3399**	**0.0270**	**0.3668**		**1,834.8664**	**1,834.8664**	**0.0313**	**0.1855**	**1,890.9201**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0531	2.2683	0.7168	9.7400e-003	0.3253	0.0134	0.3386	0.0937	0.0128	0.1064		1,028.8526	1,028.8526	2.8200e-003	0.1556	1,075.2982
Worker	0.3083	0.2160	2.6185	7.3800e-003	0.9283	4.4400e-003	0.9327	0.2462	4.0900e-003	0.2503		746.4347	746.4347	0.0244	0.0227	753.8216
Total	**0.3614**	**2.4842**	**3.3352**	**0.0171**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0169**	**0.3567**		**1,775.2873**	**1,775.2873**	**0.0272**	**0.1784**	**1,829.1198**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0531	2.2683	0.7168	9.7400e-003	0.3253	0.0134	0.3386	0.0937	0.0128	0.1064		1,028.8526	1,028.8526	2.8200e-003	0.1556	1,075.2982
Worker	0.3083	0.2160	2.6185	7.3800e-003	0.9283	4.4400e-003	0.9327	0.2462	4.0900e-003	0.2503		746.4347	746.4347	0.0244	0.0227	753.8216
Total	**0.3614**	**2.4842**	**3.3352**	**0.0171**	**1.2535**	**0.0178**	**1.2713**	**0.3399**	**0.0169**	**0.3567**		**1,775.2873**	**1,775.2873**	**0.0272**	**0.1784**	**1,829.1198**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0409	0.0287	0.3476	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		99.0843	99.0843	3.2400e-003	3.0200e-003	100.0648
Total	**0.0409**	**0.0287**	**0.3476**	**9.8000e-004**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**99.0843**	**99.0843**	**3.2400e-003**	**3.0200e-003**	**100.0648**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0409	0.0287	0.3476	9.8000e-004	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		99.0843	99.0843	3.2400e-003	3.0200e-003	100.0648
Total	**0.0409**	**0.0287**	**0.3476**	**9.8000e-004**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**99.0843**	**99.0843**	**3.2400e-003**	**3.0200e-003**	**100.0648**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.3597					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**65.5513**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0440	0.5330	1.5000e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		151.9292	151.9292	4.9700e-003	4.6300e-003	153.4327
Total	**0.0628**	**0.0440**	**0.5330**	**1.5000e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**151.9292**	**151.9292**	**4.9700e-003**	**4.6300e-003**	**153.4327**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.3597					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**65.5513**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0440	0.5330	1.5000e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		151.9292	151.9292	4.9700e-003	4.6300e-003	153.4327
Total	**0.0628**	**0.0440**	**0.5330**	**1.5000e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**151.9292**	**151.9292**	**4.9700e-003**	**4.6300e-003**	**153.4327**

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	lb/day										lb/day					
Mitigated	8.6021	12.3226	80.5858	0.1380	14.3949	0.1278	14.5227	3.8422	0.1199	3.9621		14,052.8125	14,052.8125	1.1285	0.8600	14,337.2895
Unmitigated	8.6021	12.3226	80.5858	0.1380	14.3949	0.1278	14.5227	3.8422	0.1199	3.9621		14,052.8125	14,052.8125	1.1285	0.8600	14,337.2895

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
NaturalGas Unmitigated	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048

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	lb/day										lb/day					
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
Medical Office Building	4465.75	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Medical Office Building	4.46575	0.0482	0.4378	0.3678	2.6300e-003		0.0333	0.0333		0.0333	0.0333		525.3828	525.3828	0.0101	9.6300e-003	528.5048
Total		**0.0482**	**0.4378**	**0.3678**	**2.6300e-003**		**0.0333**	**0.0333**		**0.0333**	**0.0333**		**525.3828**	**525.3828**	**0.0101**	**9.6300e-003**	**528.5048**

6.0 Area Detail

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Unmitigated	2.4794	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7500e-003	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Total	**2.4794**	**2.7000e-004**	**0.0298**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0639**	**0.0639**	**1.7000e-004**		**0.0681**

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	lb/day										lb/day					
Architectural Coating	0.2686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7500e-003	2.7000e-004	0.0298	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0639	0.0639	1.7000e-004		0.0681
Total	**2.4794**	**2.7000e-004**	**0.0298**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0639**	**0.0639**	**1.7000e-004**		**0.0681**

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sutter Parking Garage Expansion & MOB 7

Placer County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	100.00	1000sqft	1.59	100,000.00	0
Enclosed Parking with Elevator	192.00	1000sqft	0.94	192,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	471.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage changed based on submitted plans.

Area Mitigation -

Architectural Coating -

Construction Phase - Entire site will be graded and prepped as one phase, but building construction will occur in two phases. Duration of building construction and finishes was extended to account for this.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	220.00	250.00
tblConstructionPhase	PhaseEndDate	4/25/2023	5/2/2023
tblConstructionPhase	PhaseEndDate	3/28/2023	5/9/2023

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	2.30	1.59
tblLandUse	LotAcreage	4.41	0.94

2.0 Emissions Summary

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, 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					
2022	0.1853	1.4496	1.4565	3.4900e-003	0.1188	0.0608	0.1797	0.0365	0.0582	0.0946	0.0000	305.6644	305.6644	0.0366	0.0132	310.5043
2023	0.5915	0.7909	0.8818	2.0700e-003	0.0572	0.0318	0.0889	0.0156	0.0304	0.0459	0.0000	181.4449	181.4449	0.0218	7.4100e-003	184.1976
Maximum	**0.5915**	**1.4496**	**1.4565**	**3.4900e-003**	**0.1188**	**0.0608**	**0.1797**	**0.0365**	**0.0582**	**0.0946**	**0.0000**	**305.6644**	**305.6644**	**0.0366**	**0.0132**	**310.5043**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1853	1.4496	1.4565	3.4900e-003	0.1188	0.0608	0.1797	0.0365	0.0582	0.0946	0.0000	305.6642	305.6642	0.0366	0.0132	310.5041
2023	0.5915	0.7909	0.8818	2.0700e-003	0.0572	0.0318	0.0889	0.0156	0.0304	0.0459	0.0000	181.4448	181.4448	0.0218	7.4100e-003	184.1975
Maximum	**0.5915**	**1.4496**	**1.4565**	**3.4900e-003**	**0.1188**	**0.0608**	**0.1797**	**0.0365**	**0.0582**	**0.0946**	**0.0000**	**305.6642**	**305.6642**	**0.0366**	**0.0132**	**310.5041**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, 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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	**5-12-2022**	**8-11-2022**	0.6354	0.6354
2	**8-12-2022**	**11-11-2022**	0.6456	0.6456
3	**11-12-2022**	**2-11-2023**	0.6255	0.6255
4	**2-12-2023**	**5-11-2023**	1.1125	1.1125
		Highest	1.1125	1.1125

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	0.4522	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	517.3997	517.3997	0.0318	5.2400e-003	519.7560
Mobile	1.2140	1.6050	10.2859	0.0192	1.8926	0.0175	1.9101	0.5070	0.0165	0.5235	0.0000	1,775.6826	1,775.6826	0.1297	0.1030	1,809.6041
Waste						0.0000	0.0000		0.0000	0.0000	219.2302	0.0000	219.2302	12.9561	0.0000	543.1336
Water						0.0000	0.0000		0.0000	0.0000	3.9809	16.3269	20.3078	0.4100	9.7900e-003	33.4766
Total	**1.6750**	**1.6850**	**10.3557**	**0.0197**	**1.8926**	**0.0236**	**1.9162**	**0.5070**	**0.0225**	**0.5296**	**223.2112**	**2,309.4143**	**2,532.6255**	**13.5277**	**0.1180**	**2,905.9758**

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	0.4522	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	517.3997	517.3997	0.0318	5.2400e-003	519.7560
Mobile	1.2140	1.6050	10.2859	0.0192	1.8926	0.0175	1.9101	0.5070	0.0165	0.5235	0.0000	1,775.6826	1,775.6826	0.1297	0.1030	1,809.6041
Waste						0.0000	0.0000		0.0000	0.0000	219.2302	0.0000	219.2302	12.9561	0.0000	543.1336
Water						0.0000	0.0000		0.0000	0.0000	3.9809	16.3269	20.3078	0.4100	9.7900e-003	33.4766
Total	**1.6750**	**1.6850**	**10.3557**	**0.0197**	**1.8926**	**0.0236**	**1.9162**	**0.5070**	**0.0225**	**0.5296**	**223.2112**	**2,309.4143**	**2,532.6255**	**13.5277**	**0.1180**	**2,905.9758**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/12/2022	5/16/2022	5	3	
2	Grading	Grading	5/17/2022	5/24/2022	5	6	
3	Building Construction	Building Construction	5/25/2022	5/9/2023	5	250	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	3/29/2023	4/11/2023	5	10	
5	Architectural Coating	Architectural Coating	4/12/2023	5/2/2023	5	15	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 11,520 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	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	8	113.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0759	0.0759	0.0000	0.0000	0.0766
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0759**	**0.0759**	**0.0000**	**0.0000**	**0.0766**

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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0759	0.0759	0.0000	0.0000	0.0766
Total	**3.0000e-005**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0759**	**0.0759**	**0.0000**	**0.0000**	**0.0766**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	7.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1898	0.1898	1.0000e-005	1.0000e-005	0.1916
Total	**8.0000e-005**	**6.0000e-005**	**7.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1898**	**0.1898**	**1.0000e-005**	**1.0000e-005**	**0.1916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	7.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1898	0.1898	1.0000e-005	1.0000e-005	0.1916
Total	**8.0000e-005**	**6.0000e-005**	**7.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1898**	**0.1898**	**1.0000e-005**	**1.0000e-005**	**0.1916**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1466	1.1537	1.1339	1.9800e-003		0.0555	0.0555		0.0532	0.0532	0.0000	164.0673	164.0673	0.0317	0.0000	164.8586
Total	**0.1466**	**1.1537**	**1.1339**	**1.9800e-003**		**0.0555**	**0.0555**		**0.0532**	**0.0532**	**0.0000**	**164.0673**	**164.0673**	**0.0317**	**0.0000**	**164.8586**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0700e-003	0.2039	0.0608	8.0000e-004	0.0248	1.8700e-003	0.0266	7.1700e-003	1.7900e-003	8.9600e-003	0.0000	76.2027	76.2027	3.3000e-004	0.0115	79.6462
Worker	0.0248	0.0174	0.2180	6.2000e-004	0.0701	3.7000e-004	0.0705	0.0187	3.4000e-004	0.0190	0.0000	56.4659	56.4659	1.7800e-003	1.6400e-003	56.9984
Total	**0.0319**	**0.2214**	**0.2788**	**1.4200e-003**	**0.0949**	**2.2400e-003**	**0.0971**	**0.0258**	**2.1300e-003**	**0.0280**	**0.0000**	**132.6686**	**132.6686**	**2.1100e-003**	**0.0132**	**136.6446**

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	0.1466	1.1537	1.1339	1.9800e-003		0.0555	0.0555		0.0532	0.0532	0.0000	164.0671	164.0671	0.0317	0.0000	164.8584
Total	**0.1466**	**1.1537**	**1.1339**	**1.9800e-003**		**0.0555**	**0.0555**		**0.0532**	**0.0532**	**0.0000**	**164.0671**	**164.0671**	**0.0317**	**0.0000**	**164.8584**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0700e-003	0.2039	0.0608	8.0000e-004	0.0248	1.8700e-003	0.0266	7.1700e-003	1.7900e-003	8.9600e-003	0.0000	76.2027	76.2027	3.3000e-004	0.0115	79.6462
Worker	0.0248	0.0174	0.2180	6.2000e-004	0.0701	3.7000e-004	0.0705	0.0187	3.4000e-004	0.0190	0.0000	56.4659	56.4659	1.7800e-003	1.6400e-003	56.9984
Total	**0.0319**	**0.2214**	**0.2788**	**1.4200e-003**	**0.0949**	**2.2400e-003**	**0.0971**	**0.0258**	**2.1300e-003**	**0.0280**	**0.0000**	**132.6686**	**132.6686**	**2.1100e-003**	**0.0132**	**136.6446**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0788	0.6267	0.6539	1.1500e-003		0.0282	0.0282		0.0271	0.0271	0.0000	95.5430	95.5430	0.0181	0.0000	95.9947
Total	**0.0788**	**0.6267**	**0.6539**	**1.1500e-003**		**0.0282**	**0.0282**		**0.0271**	**0.0271**	**0.0000**	**95.5430**	**95.5430**	**0.0181**	**0.0000**	**95.9947**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5400e-003	0.1020	0.0323	4.5000e-004	0.0144	6.1000e-004	0.0150	4.1800e-003	5.9000e-004	4.7600e-003	0.0000	42.8797	42.8797	1.2000e-004	6.4800e-003	44.8149
Worker	0.0134	8.9900e-003	0.1179	3.5000e-004	0.0408	2.0000e-004	0.0410	0.0109	1.9000e-004	0.0111	0.0000	31.8351	31.8351	9.4000e-004	8.9000e-004	32.1228
Total	**0.0160**	**0.1110**	**0.1503**	**8.0000e-004**	**0.0552**	**8.1000e-004**	**0.0561**	**0.0150**	**7.8000e-004**	**0.0158**	**0.0000**	**74.7148**	**74.7148**	**1.0600e-003**	**7.3700e-003**	**76.9378**

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	0.0788	0.6267	0.6539	1.1500e-003		0.0282	0.0282		0.0271	0.0271	0.0000	95.5428	95.5428	0.0181	0.0000	95.9946
Total	**0.0788**	**0.6267**	**0.6539**	**1.1500e-003**		**0.0282**	**0.0282**		**0.0271**	**0.0271**	**0.0000**	**95.5428**	**95.5428**	**0.0181**	**0.0000**	**95.9946**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5400e-003	0.1020	0.0323	4.5000e-004	0.0144	6.1000e-004	0.0150	4.1800e-003	5.9000e-004	4.7600e-003	0.0000	42.8797	42.8797	1.2000e-004	6.4800e-003	44.8149
Worker	0.0134	8.9900e-003	0.1179	3.5000e-004	0.0408	2.0000e-004	0.0410	0.0109	1.9000e-004	0.0111	0.0000	31.8351	31.8351	9.4000e-004	8.9000e-004	32.1228
Total	**0.0160**	**0.1110**	**0.1503**	**8.0000e-004**	**0.0552**	**8.1000e-004**	**0.0561**	**0.0150**	**7.8000e-004**	**0.0158**	**0.0000**	**74.7148**	**74.7148**	**1.0600e-003**	**7.3700e-003**	**76.9378**

3.5 Paving - 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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8179**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.9000e-004	1.3000e-004	1.7000e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4593	0.4593	1.0000e-005	1.0000e-005	0.4635
Total	**1.9000e-004**	**1.3000e-004**	**1.7000e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4593**	**0.4593**	**1.0000e-005**	**1.0000e-005**	**0.4635**

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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8178**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.9000e-004	1.3000e-004	1.7000e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4593	0.4593	1.0000e-005	1.0000e-005	0.4635
Total	**1.9000e-004**	**1.3000e-004**	**1.7000e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4593**	**0.4593**	**1.0000e-005**	**1.0000e-005**	**0.4635**

3.6 Architectural Coating - 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					
Archit. Coating	0.4902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4400e-003	9.7700e-003	0.0136	2.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	1.9149	1.9149	1.1000e-004	0.0000	1.9178
Total	**0.4916**	**9.7700e-003**	**0.0136**	**2.0000e-005**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.1000e-004**	**0.0000**	**1.9178**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.9100e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.0565	1.0565	3.0000e-005	3.0000e-005	1.0660
Total	**4.5000e-004**	**3.0000e-004**	**3.9100e-003**	**1.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.0565**	**1.0565**	**3.0000e-005**	**3.0000e-005**	**1.0660**

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	0.4902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4400e-003	9.7700e-003	0.0136	2.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	1.9149	1.9149	1.1000e-004	0.0000	1.9178
Total	**0.4916**	**9.7700e-003**	**0.0136**	**2.0000e-005**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.1000e-004**	**0.0000**	**1.9178**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.9100e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.0565	1.0565	3.0000e-005	3.0000e-005	1.0660
Total	**4.5000e-004**	**3.0000e-004**	**3.9100e-003**	**1.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.0565**	**1.0565**	**3.0000e-005**	**3.0000e-005**	**1.0660**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.2140	1.6050	10.2859	0.0192	1.8926	0.0175	1.9101	0.5070	0.0165	0.5235	0.0000	1,775.6826	1,775.6826	0.1297	0.1030	1,809.6041
Unmitigated	1.2140	1.6050	10.2859	0.0192	1.8926	0.0175	1.9101	0.5070	0.0165	0.5235	0.0000	1,775.6826	1,775.6826	0.1297	0.1030	1,809.6041

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,480.00	857.00	142.00	5,144,491	5,144,491
Total	3,480.00	857.00	142.00	5,144,491	5,144,491

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Medical Office Building	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	430.4167	430.4167	0.0301	3.6500e-003	432.2561
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	430.4167	430.4167	0.0301	3.6500e-003	432.2561
NaturalGas Mitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
NaturalGas Unmitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, 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					
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
Medical Office Building	1.63e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
Total		**8.7900e-003**	**0.0799**	**0.0671**	**4.8000e-004**		**6.0700e-003**	**6.0700e-003**		**6.0700e-003**	**6.0700e-003**	**0.0000**	**86.9830**	**86.9830**	**1.6700e-003**	**1.5900e-003**	**87.4999**

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					
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
Medical Office Building	1.63e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	86.9830	86.9830	1.6700e-003	1.5900e-003	87.4999
Total		**8.7900e-003**	**0.0799**	**0.0671**	**4.8000e-004**		**6.0700e-003**	**6.0700e-003**		**6.0700e-003**	**6.0700e-003**	**0.0000**	**86.9830**	**86.9830**	**1.6700e-003**	**1.5900e-003**	**87.4999**

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			
Enclosed Parking with Elevator	1.04448e+006	223.6091	0.0156	1.9000e-003	224.5647
Medical Office Building	966000	206.8076	0.0145	1.7500e-003	207.6914
Total		**430.4167**	**0.0301**	**3.6500e-003**	**432.2561**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.04448e+006	223.6091	0.0156	1.9000e-003	224.5647
Medical Office Building	966000	206.8076	0.0145	1.7500e-003	207.6914
Total		**430.4167**	**0.0301**	**3.6500e-003**	**432.2561**

6.0 Area Detail

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive 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	0.4522	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Unmitigated	0.4522	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Total	**0.4522**	**2.0000e-005**	**2.6800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.2200e-003**	**5.2200e-003**	**1.0000e-005**	**0.0000**	**5.5600e-003**

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

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	0.0490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.2200e-003	5.2200e-003	1.0000e-005	0.0000	5.5600e-003
Total	**0.4522**	**2.0000e-005**	**2.6800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.2200e-003**	**5.2200e-003**	**1.0000e-005**	**0.0000**	**5.5600e-003**

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	20.3078	0.4100	9.7900e-003	33.4766
Unmitigated	20.3078	0.4100	9.7900e-003	33.4766

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	12.5481 / 2.39011	20.3078	0.4100	9.7900e-003	33.4766
Total		**20.3078**	**0.4100**	**9.7900e-003**	**33.4766**

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			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	12.5481 / 2.39011	20.3078	0.4100	9.7900e-003	33.4766
Total		**20.3078**	**0.4100**	**9.7900e-003**	**33.4766**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	219.2302	12.9561	0.0000	543.1336
Unmitigated	219.2302	12.9561	0.0000	543.1336

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

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Total		**219.2302**	**12.9561**	**0.0000**	**543.1336**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1080	219.2302	12.9561	0.0000	543.1336
Total		**219.2302**	**12.9561**	**0.0000**	**543.1336**

9.0 Operational Offroad

Sutter Parking Garage Expansion & MOB 7 - Placer County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661



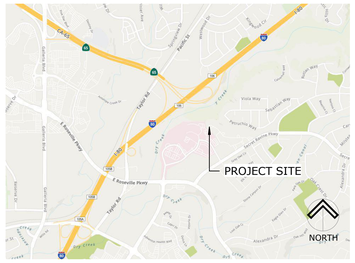
ABBREVIATIONS

#	POUND/NUMBER
&	AND
(E)	EXISTING
(N)	NEW
<	ANGLE
@	AT
C/L	CENTERLINE
P/L	PLATE/PROPERTY LINE
ø/DIA.	DIAMETER/ROUND
A.B.	AGGREGATE BASE
A.C.	ASHPHALT CONCRETE
A.D.	AREA DRAIN
A.F.F.	ABOVE FINISHED FLOOR
ACOUS.	ACOUSTICAL
ADJ.	ADJUSTABLE
AHU.	AIR HANDLING UNIT
ALUM.	ALUMINUM
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
ASB.	ASBESTOS
AUTO.	AUTOMATIC
B.D.F.	BUILDING DISTRIBUTION FACILITY
B.F.P.	BACK FLOW PREVENTER
BD.	BOARD
BIT.	BITUMINOUS
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
BTM.	BOTTOM
BW.	BACK OF WALK
C.B.	CATCH BASIN
C.G.	CORNER GUARD
C.I.	CAST IRON
C.I.D.	CLEAR INSIDE DIMENSION
C.J.	CONTROL JOINT
C.L.	CENTERLINE
C.M.U.	CONCRETE MASONRY UNIT
C.O.	CASED OPENING/CLEAN OUT
C/L	CENTERLINE
CAB.	CABINET
CEM.	CEMENT
CER.	CERAMIC
CLG.	CEILING
CLKG.	CAULKING
CLO.	CLOSET
CLR.	CLEAR
CNTR.	COUNTER
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
COORD.	COORDINATE
CORR.	CORRIDOR
CPT.	CARPET
CTSK.	COUNTERSINK
D.F.	DRINKING FOUNTAIN
D.O.	DOOR OPENING
D.S.P.	DRY STANDPIPE
DBL.	DOUBLE
DEPT.	DEPARTMENT
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DISP.	DISPENSER
DN.	DOWN
DR.	DOOR
DS.	DOWNSPOUT
DWG.	DRAWING
DWR.	DRAWER
E.	EACH
E.J.	EXPANSION JOINT
E.P.	ELECTRICAL PANELBOARD
E.W.C.	ELECTRIC WATER COOLER
EA.	EACH
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EMER.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR
F.A.	FIRE ALARM
F.A.A.N.	FIRE ALARM REMOTE ANNUNCIATOR
F.B.	FLAT BAR
F.D.	FLOOR DRAIN
F.D.C.	FIRE DEPARTMENT CONNECTION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.F.	FINISH FLOOR
F.F.E.	FINISH FLOOR ELEVATION
F.H.	FIRE HYDRANT
F.H.V.C.	FIRE HOSE VALVE CABINET
F.O.	FACE OF
F.O.C.	FACE OF CONCRETE/CURB
F.O.F.	FACE OF FINISH
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUDS
F.R.T.	FIRE RETARDANT TREATED
F.S.	FULL SIZE
FDN.	FOUNDATION
FIN.	FINISH
FL.	FLOW LINE
FLASH.	FLASHING
FLR.	FLOOR
FLUOR.	FLUORESCENT
FPRF.	FIREPROOF
FT.	FOOT/FEET
FTG.	FOOTING
FURR.	FURRING
FUT.	FUTURE
G.B.	GRAB BAR/GRADE BREAK
G.F.R.G.	GLASS FIBER REINFORCED GYPSUM
G.I.	GALVANIZED IRON
GA.	GAUGE
GALV.	GALVANIZED
GL.	GLASS
GND.	GROUND
GR.	GRADE
GYP.	GYPSUM
H.B.	HOSE BIBB
H.C.	HOLLOW CORE/ACCESSIBLE CURB RAMP
H.G.	HARDWARE GROUP
H.M.	HOLLOW METAL
HDWD.	HARDWOOD
HDWE.	HARDWARE
HORIZ.	HORIZONTAL
HR.	HOUR
HSS.	HOLLOW STEEL SECTION
HT.	HEIGHT
I.D.	INSIDE DIAMETER/DIMENSION
I.D.F.	INTERMEDIATE DISTRIBUTION FACILITY
INSUL.	INSULATION
INT.	INTERIOR
JAN.	JANITOR
JT.	JOINT
KIT.	KITCHEN
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LKR.	LOCKER
LT.	LIGHT
M.C.	MEDICINE CABINET
M.O.	MASONRY OPENING
MAX.	MAXIMUM
MDF.	MEDIUM DENSITY FIBERBOARD
MECH.	MECHANICAL
MEMB.	MEMBRANE
MFR.	MANUFACTURER
MH.	MANHOLE
MIN.	MINIMUM
MIRR.	MIRROR
MISC.	MISCELLANEOUS
MTD.	MOUNTED
MTL.	METAL
MUL.	MULLION
N.	NORTH
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
NOM.	NOMINAL
O.A.	OVERALL
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER/DIMENSION
O.H.	OVERHEAD
O/	OVER
OFF.	OFFICE
OPNG.	OPENING
OPP.	OPPOSITE
P.C.	PRECAST
P.I.V.	POST INDICATOR VALVE
P.M.	PRESSED METAL
P.O.C.	POINT OF CONNECTION
P.T.	PRESSURE TREATED
PL.	PLATE
PLAS.	PLASTER/PLASTIC
PLYWD.	PLYWOOD
PR.	PAIR
PT.	POINT
PTN.	PARTITION
Q.T.	QUARRY TILE
R.	RISER/RADIUS
R.D.	ROOF DRAIN
R.O.	ROUGH OPENING
R.W.L.	RAIN WATER LEADER
REF.	REFRIGERATOR
REG.	REGISTER
REINF.	REINFORCED
REQD.	REQUIRED
RESIL.	RESILIENT
RM.	ROOM
RWD.	REDWOOD
S.	SOUTH
S.C.	SOLID CORE
S.S.	STAINLESS STEEL
S.V.	SHEET VINYL
SCHED.	SCHEDULE
SECT.	SECTION
SH.	SHELF
SHT.	SHEET
SHWR.	SHOWER
SIM.	SIMILAR
SMH.	SEWER MANHOLE
SMS.	SHEET METAL SCREW
SPEC.	SPECIFICATION
SQ.	SQUARE
STA.	STATION
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
STRUC.	STRUCTURAL
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
T.	TREAD
T.&B.	TOP AND BOTTOM
T.&G.	TONGUE AND GROOVE
T.C.	TOP OF CURB
T.O.	TOP OF
T.O.F.	TOP OF FRAMING
T.O.S.	TOP OF STEEL
T.S.	TUBE STEEL
T.V.	TELEVISION
T.W.	TOP OF WALL
TEL.	TELEPHONE
TER.	TERAZZO
THK.	THICK
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
UR.	URINAL
VCT.	VINYL COMPOSITION TILE
VERT.	VERTICAL
VEST.	VESTIBULE
VF	VENDOR FURNISHED
VI	VENDOR INSTALLED
W.	WEST
W.C.	WATER CLOSET
W/	WITH
W/O	WITHOUT
WD.	WOOD
WP.	WATERPROOF/WORK POINT
WSCT.	WAINSCOT
WT.	WEIGHT
XFMR.	TRANSFORMER

SYMBOLS

- GRID LINE TYPICAL
- WORK POINT, CONTROL POINT OR DATUM POINT
- ROOM NAME / 101 — ROOM NAME / ROOM NUMBER
- 03 10 01 — KEYNOTE TAG - CSI PREFIX / SEE NOTES ON SIDE OF SHEET
- D001 — DEMOLITION KEYNOTE TAG / SEE NOTES ON SIDE OF SHEET
- X101 — DOOR TAG / SEE DOOR SCHEDULE SHEET
- S1 — WINDOW TAG / SEE WINDOW SCHEDULE SHEET
- RTH-1 — EQUIPMENT DESIGNATION / SEE EQUIPMENT SCHEDULE SHEET
- XX-1 — ACCESSORIES DESIGNATION / SEE EQUIPMENT SCHEDULE SHEET
- 222 / XX" XX' XX — WI NUMBER, HEIGHT, DEPTH, WIDTH — MILLWORK TYPE TAG
- PT-1 — FINISH MATERIAL TAG
- ACT-1 — FINISH MATERIAL TAG (CEILING)
- CPT-1 — FINISH MATERIAL TAG (FLOOR)
- XX XX — SIGN NO., SIGN TYPE — SIGNAGE TYPE TAG
- A30A — WALL TYPE TAG / SEE DETAILS
- X — REVISION TAG
- 1 / A101 — REFERENCE NO., SHEET NO. — DETAIL TAG / SEE SHEET INDICATED
- 4 A5.01 2 / 3 — REFERENCE NO., SHEET NO. — INTERIOR ELEVATION TAG / SEE SHEET INDICATED
- 1 / A5.01 — REFERENCE NO., SHEET NO. — BUILDING SECTION CUT/EXTERIOR ELEVATION TAG / SEE SHEET INDICATED

VICINITY MAP



PROJECT TEAM

DEVELOPER
SEPAROVICH/DOMICH
3321 POWER INN ROAD, STE 100
SACRAMENTO, CA 9582
TELEPHONE: 916 736-9000
FACSIMILE: 916 736-6979
CONTACT: DAVID PADGHAM

CONTRACTOR
WESTFORK CONSTRUCTION
6050 WAREHOUSE WAY
SACRAMENTO, CA 95826
TELEPHONE: 916 452-8197
FACSIMILE: 916 452-8190

ARCHITECTURAL
DREYFUSS & BLACKFORD ARCHITECTS
3540 FOLSOM BOULEVARD
SACRAMENTO, CALIFORNIA 95816
TELEPHONE: 916 453-1234
FACSIMILE: 916 453-1236
CONTACT: SARAH BERGMAN

MECHANICAL
ACCO ENGINEERED SYSTEMS
9290 BEATTY DRIVE
SACRAMENTO, CA 95826
TELEPHONE: 916 520-2100

CIVIL
SIEGFRIED ENGINEERING
4244 BROOKSIDE ROAD, SUITE 100
STOCKTON, CA 95219
TELEPHONE: 209 943-2021
FACSIMILE: 209 942-0214

ELECTRICAL
VASKO ELECTRIC INC.
4300 ASTORIA STREET
SACRAMENTO, CA 95838
TELEPHONE: 916 568-7700
FACSIMILE: 916 568-7713

STRUCTURAL
BUEHLER ENGINEERING
600 Q STREET, SUITE# 200
SACRAMENTO, CA 95811
TELEPHONE: 916 443-0303

LANDSCAPE
SIEGFRIED ENGINEERING
3244 BROOKSIDE ROAD, SUITE 100
STOCKTON, CA 95219
TELEPHONE: 209 943-2021
FACSIMILE: 209 942-0214

PLUMBING
LG ELLIS PLUMBING INC.
8608 FRUITRIDGE ROAD
SACRAMENTO, CA 95826
TELEPHONE: 916 383-5422

PROJECT SUMMARY

PROJECT LOCATION: 7 MEDICAL PLAZA
ROSEVILLE, CA 95661

DESCRIPTION:
THE PROJECT INVOLVES CONSTRUCTION OF A NEW FOUR STORY MEDICAL OFFICE BUILDING ON AN EXISTING MEDICAL CENTER CAMPUS. THE SCOPE OF WORK INCLUDES BUILDING CORE AND SHELL, SITE IMPROVEMENTS; AND ASSOCIATED MECHANICAL, PLUMBING, AND ELECTRICAL UTILITIES. THIS PROJECT DOES NOT INCLUDE TENANT IMPROVEMENTS.

THE MOB DESIGN INCLUDES TWO PHASES:

PHASE 1 = 4 STORIES, 85,000 SF
PHASE 2 (FUTURE) = 2 STORIES, 15,000 SF

THE BUILDING OWNER AND SUTTER HEALTH INTEND TO COMPLETE DESIGN AND CONSTRUCTION OF PHASE 1 NOW. DETAILED DESIGN INFORMATION FOR PHASE 1 IS INCLUDED IN THIS SUBMITTAL. PHASE 2 MAY BE CONSTRUCTED IN THE FUTURE. SEE A1.1 FOR A PRELIMINARY PHASE 2 SITE PLAN.

TYPE OF CONSTRUCTION: IIA

OCCUPANCY: B; A-3

BUILDING AREA:

LEVEL 01	= 21,400 SF
LEVEL 02	= 21,200 SF
LEVEL 03	= 21,200 SF
LEVEL 04	= 21,200 SF
TOTAL	**= 85,000 SF**

FIRE-RESISTANCE RATING REQUIREMENTS (CBC TABLE 601):

PRIMARY STRUCTURAL FRAME	= 1 HOUR
INTERIOR AND EXTERIOR BEARING WALLS	= 1 HOUR
NON-BEARING EXTERIOR WALLS	= 0 HOURS (PER CBC TABLES 602 & 705.8)
NON-BEARING INTERIOR WALLS	= 0 HOURS
FLOORS AND SECONDARY MEMBERS	= 1 HOUR
ROOF AND SECONDARY MEMBERS	= 1 HOUR

FIRE PROTECTION: BUILDING WILL BE FULLY SPRINKLERED

APN'S: 046-060-034-000 FOR 7 MEDICAL PLAZA
(INCLUDES THE PROJECT SITE)

ALL WORK SHALL CONFORM TO THE FOLLOWING CODES:

2019	CBC	CALIFORNIA BUILDING CODE WITH CITY OF ROSEVILLE AMENDMENTS
2019	CEC	CALIFORNIA ELECTRIC CODE WITH CITY OF ROSEVILLE AMENDMENTS
2019	CMC	CALIFORNIA MECHANICAL CODE
2019	CPC	CALIFORNIA PLUMBING CODE
2019		CALIFORNIA ENERGY CODE
2019	CFC	CALIFORNIA FIRE CODE WITH CITY OF ROSEVILLE AMENDMENTS
2019		CALIFORNIA GREEN BUILDING STANDARDS CODE
2019	NFPA 13	STANDARD FOR THE INSTALLTION OF SPRINKLER SYSTEMS
2020	NFPA 25	CALIFORNIA EDITION - STANDARD OF WATTER BASED FIRE PROTECTION SYSTEMS
2019	NFPA 72	NATIONAL FIRE ALARM SIGNALING CODE, AS AMENDED BY THE STATE OF CALIFORNIA

CFC SECTION 503 FIRE APPARATUS ACCESS ROAD:

PER CFC 503.1.1, EXCEPTION 1, THE FIRE CODE OFFICIAL IS AUTHORIZED TO INCREASE THE DIMENSION OF 150 FEET WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.1.1, 903.3.1.2, OR 903.3.1.3.

DEFERRED SUBMITTALS: T.B.D

VEHICLE PARKING CALCULATIONS

PARKING REQUIRED

PHASE 1:
4-STORY | 85,000 SF MOB
PER FEHR & PEERS 2022 TRAFFIC STUDY: 3.31 STALLS/1000 SF
(3.31 X 85,000)/1000 = 282 STALLS

PHASE 2
2-STORY | 15,000 SF OF MOB
(3.31 x 15,000)/1000 = 50 STALLS

TOTAL STALLS REQUIRED AFTER PHASE II = 332

PARKING PROVIDED ON SITE

PHASE 1

STANDARD STALLS	= 13
STANDARD STALLS (CLEAN AIR/EV)	= 6
COMPACT STALLS	= 4
ACCESSIBLE - VAN	= 2
ACCESSIBLE - STANDARD	= 6
ACCESSIBLE EV - VAN	= 1
TOTAL STALLS ON SITE	= 32

PHASE 2

STANDARDS STALLS	= 0
COMPACT STALLS	= 0
ACCESSIBLE - VAN	= 2
ACCESSIBLE - STANDARD	= 6
TOTAL STALLS ON SITE	= 8

PARKING STALLS NEEDED IN THE GARAGE

PHASE 1

PARKING STALLS REQUIRED FOR MOB 7	= 282
PARKING STALLS PROVIDED ON SITE	= - 32
PARKING STALLS NEEDED IN GARAGE	= 250

PHASE 2

PARKING STALLS NEEDED FOR MOB 7	= 332
PARKING STALLS PROVIDED ON SITE	= - 8
PARKING STALLS NEEDED IN GARAGE	= 324

PARKING GARAGE 12 EXPANSION

PARKING STALLS PROVIDED IN EXPANSION	= 551
PARKING GARAGE 12 SURFACE STALLS LOST	= - 93
SURFACE STALLS DISPLACED BY MOB 7	= - 99
EXISTING GARAGE STALLS DISPLACED BY EXPANSION	= - 14
NET GAIN OF PARKING STALLS	= 345

PARKING SURPLUS IN EXPANDED GARAGE

PHASE 1

NET GAIN OF PARKING STALLS	= 345
PARKING STALLS USED BY MOB 7	= - 250
PARKING SURPLUS IN EXPANDED GARAGE	= 95

PHASE 2

NET GAIN OF PARKING STALLS	= 345
PARKING STALLS USED BY MOB 7	= - 324
PARKING SURPLUS IN EXPANDED GARAGE	= 21

CLEAN AIR VEHICLES
CALIFORNIA GREEN BUILDING STANDARDS CODE 5.106.5.2

PARKING SPACES PROVIDED AT SURFACE LOT: 32
REQUIRED PARKING SPACES FOR CLEAN AIR VEHICLES: 6

ELECTRIC VEHICLE CHARGING
CALIFORNIA GREEN BUILDING STANDARDS CODE 5.106.5.3

PARKING SPACES PROVIDED AT SURFACE LOT: 32
REQUIRED PARKING SPACES FOR EV CHARGING: 4

ACCESSIBLE ELECTRIC VEHICLE CHARGING
CALIFORNIA BUILDING CODE TABLE 11B-228.3.2.1

TOTAL NUMBER OF EVCS PROVIDED: 7
MINIMUM NUMBER OF EVCS REQUIRED: 1 VAN ACCESSIBLE

BICYCLE PARKING CALCULATIONS

CALIFORNIA GREEN BUILDING STANDARDS CODE - 5.106.4 BICYCLE PARKING

THIS PROJECT INTENDS TO PROVIDE ENOUGH SHORT-TERM AND LONG-TERM BICYCLE PARKING SPACES FOR PHASE 1 AND PHASE 2 OF MOB 7.

SHORT-TERM: 5% OF NEW VISITOR PARKING SPACES (PARKING TO BE LOCATED WITHIN 200 FEET OF VISITORS' ENTRANCE, READILY VISIBLE TO PASSERS-BY, WITH A MINIMUM OF TWO-BIKE CAPACITY RACK.)

PHASE 1 + PHASE 2 = 332 PARKING SPACES REQUIRED
5% OF 332 = 17 SHORT-TERM BICYCLE PARKING SPACES*

LONG-TERM: 5% OF PARKING SPACES WITH MINIMUM OF ONE BICYCLE PARKING FACILITY.

PHASE 1 + PHASE 2 = 332 PARKING SPACES REQUIRED
5% OF 332 = 17 LONG-TERM BICYCLE PARKING SPACES*

*THE PARKING GARAGE 12 EXPANSION INCLUDES 24 LONG-TERM BICYCLE PARKING SPACES. 17 OF THESE SPACES WILL BE DEDICATED TO SUPPORT MOB 7.

SHEET INDEX

01-GENERAL	
G0.0	COVER SHEET
G0.1	CEQA SITE PLAN - PROPOSED MOB & PARKING GARAGE

02 - CIVIL	
C1.1	GENERAL NOTES
C2.0	TOPOGRAPHY & DEMOLITION PLAN
C3.0	PAVING & DIMENSIONING PLAN
C4.0	GRADING PLAN
C4.1	CROSS-SECTIONS
C5.0	UTILITY PLAN
C6.0	FIRE PROTECTION PLAN
C7.0	EROSION PLAN
C8.0	DETAILS

03 - LANDSCAPE	
L1.0	IRRIGATION PLAN
L2.0	PLANTING PLAN
L3.0	LANDSCAPE DETAILS

04-ARCHITECTURAL	
A0.0	SITE PLAN OVERALL
A1.0	SITE PLAN - ENLARGED
A1.1	SITE PLAN - PHASE 2
A2.0	ROOF PLAN
A4.0	BUILDING ELEVATIONS
A5.0	BUILDING ELEVATIONS
A6.0	COLOR ELEVATIONS
A7.0	COLOR ELEVATIONS
A8.0	BUILDING SECTIONS

08-ELECTRICAL	
E2.2	SITE PHOTOMETRIC LAYOUT

Dreyfuss+Blackford architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER
MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

COVER SHEET

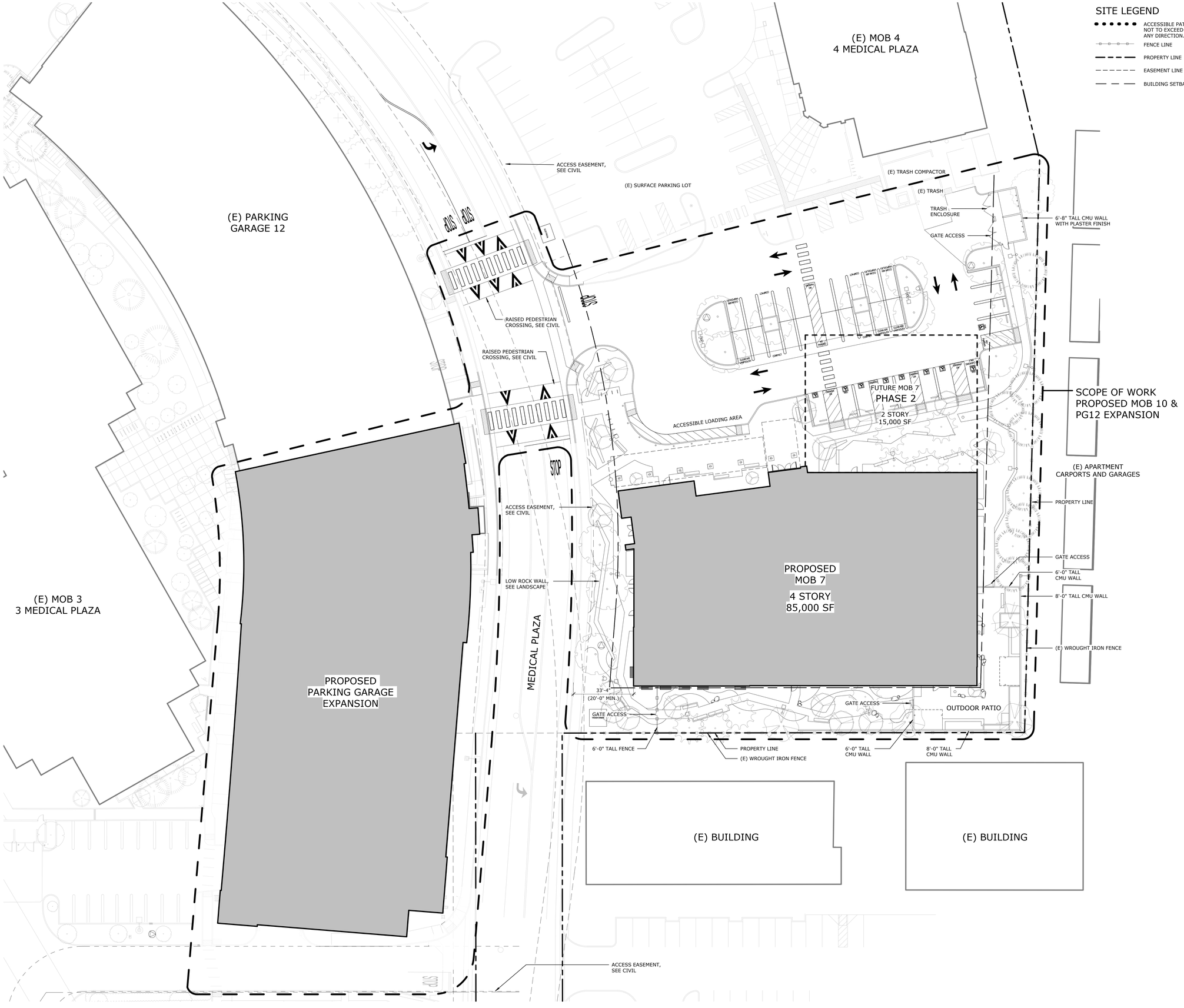
C1014.00

2 MAY 2022

G0.0

C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_phardingRY4N9.rvt

5/2/2022 12:13:00 PM



1 CEQA SITE PLAN - PROPOSED MOB 10 AND PARKING GARAGE 12 EXPANSION
1" = 20'-0"

SITE LEGEND

- ACCESSIBLE PATH OF TRAVEL NOT TO EXCEED 2% CROSS SLOPE IN ANY DIRECTION.
- FENCE LINE
- PROPERTY LINE
- EASEMENT LINE
- BUILDING SETBACK LINE

Dreyfuss+Blackford architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

CEQA SITE PLAN - PROPOSED MOB & PARKING GARAGE

PROJECT NORTH

C1014.00
AS SHOWN
2 MAY 2022

G0.1

C:\BIM\2021Projects\C1014.00-Sutter Roseville MOB 10_A21_gharding#Y4N9.rvt
5/2/2022 12:13:03 PM

GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE CITY OF ROSEVILLE STANDARD SPECIFICATIONS AND PLANS, LATEST EDITION, AND ALL AMENDMENTS THERE TO-DATE.
2. FOR ELEVATIONS REFER TO BENCHMARK REFERENCED ON SHEET C2.01.
3. PRIOR TO AND DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR BEING FAMILIAR WITH THE CURRENT CITY OF ROSEVILLE STANDARDS AND ALL UPDATES AND REVISIONS MADE TO ANY OF THE CITY OF ROSEVILLE STANDARD DETAILS SHOWN ON THESE PLANS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR BEING FAMILIAR WITH THE WRITTEN SPECIFICATIONS AND/OR OTHER STANDARD DETAILS NOT SHOWN BUT WHICH ARE INCLUDED IN THE "CITY OF ROSEVILLE STANDARD SPECIFICATIONS AND PLANS".
4. DRAWING NUMBERS SHOWN ON THE PLANS REFER TO CITY OF ROSEVILLE STANDARD PLANS, SHOWN THUS: C.O.R. DETAIL NO.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING FROM DAMAGE ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN. SUCH IMPROVEMENTS THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT HIS EXPENSE.
6. ALL TRENCH EXCAVATION SHALL BE IN ACCORDANCE WITH CITY OF ROSEVILLE STANDARD SPECIFICATIONS.
7. EXCAVATION OF 5 FEET OR MORE IN DEPTH WILL REQUIRE AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY.
8. THE CONTRACTOR SHALL DEMOLISH, EXCAVATE, REMOVE AND DISPOSE OF ALL EXISTING CONCRETE CURB, GUTTER OR SIDEWALK, ASPHALT CONCRETE PAVING, AND DELETERIOUS MATERIAL AS REQUIRED TO CONSTRUCT THE CONTRACT WORK. ALL SUCH EXCESS MATERIAL GENERATED SHALL BE DISPOSED OF FROM THE SITE BY THE CONTRACTOR.
9. THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FOR ANY WORK DONE WITHIN THE CITY RIGHT-OF-WAY FROM THE CITY OF ROSEVILLE PUBLIC WORKS DEPARTMENT, AND NOTIFY THE CITY 48 HOURS IN ADVANCE OF STARTING ANY WORK TO BE ACCEPTED FOR OWNERSHIP AND MAINTENANCE BY THE CITY OF ROSEVILLE.
10. EXISTING UTILITIES ARE SHOWN AS THEY ARE BELIEVED TO EXIST. THE OWNER AND THE ENGINEER DO NOT ACCEPT RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL HAVE EACH UTILITY COMPANY ACCURATELY LOCATE IN THE FIELD THEIR MAINS AND SERVICE LINES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES.
11. ATTENTION IS CALLED TO: SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540), ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973, AS AMENDED, WHICH STATES:

    "PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATION I.E., SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND, IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING AND WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION."
12. THE CONTRACTOR SHALL CONTACT THE CITY OF ROSEVILLE AT LEAST 72 HOURS IN ADVANCE OF THE CONTRACTOR'S INTENT TO CONNECT TO PUBLIC UTILITIES TO COORDINATE THE CONNECTION TO PUBLIC WATER, SEWER AND STORM DRAINAGE SYSTEMS.
13. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE IN THE FIELD THEIR MAIN SERVICE LINES. THE CONTRACTOR SHALL NOTIFY MEMBERS OF THE UNDERGROUND SERVICE ALERT (U.S.A.) 48 HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK BY CALLING THE TOLL-FREE NUMBER (800-227-2600).
14. THE CONTRACTOR SHALL CHECK WITH THE UTILITY COMPANIES AND VERIFY ALL UTILITY LOCATIONS. IT SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF HIS CONTRACT. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICES TO THE DEVELOPMENT.
15. WHENEVER EXISTING PAVEMENT IS BROKEN OR CUT DURING THE INSTALLATION OF THE WORK COVERED BY THESE PLANS AND SPECIFICATIONS, THE PAVEMENT SHALL BE REPLACED WITH PAVEMENT MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL PAVING. THE FINISHED PAVEMENT SHALL BE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER IF LOCATED WITHIN CITY RIGHT-OF-WAY.
16. PAYMENT FOR PAVEMENT WILL BE MADE FOR THE AREAS SHOWN ON THE PLANS. REPLACEMENT OF PAVEMENT WHICH IS BROKEN OR CUT IN THE INSTALLATION OF THE IMPROVEMENTS COVERED BY THESE PLANS AND SPECIFICATIONS, AND WHICH LIES OUTSIDE OF SAID AREAS, SHALL BE INCLUDED IN THE STREET CONTRACTOR'S UNIT PRICE FOR PAVEMENT, AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH WORK.
17. THE CONTRACTOR SHALL EXPOSE EXISTING STORM DRAINS, WATER MAINS, AND SANITARY SEWERS WHERE CONNECTIONS AND CROSSINGS ARE TO BE MADE SO EXISTING FLOWLINES AND LOCATIONS CAN BE VERIFIED BEFORE THE START OF CONSTRUCTION.
18. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
19. CONSTRUCTION STAKING: CONSTRUCTION STAKING IS NORMALLY PERFORMED BY THE ENGINEER WHO PREPARED THE PLAN. THIS PERMITS APPROPRIATE ON-SITE INTERPRETATION AND ADJUSTMENT OF THE PLANS, IF NECESSARY. CONTRACTOR SHALL NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS PRIOR TO THE ACTUAL NEED FOR STAKING. ANY STAKING REQUESTED BY THE CONTRACTOR OR HIS SUBCONTRACTORS WHICH EXTENDS BEYOND THE ORIGINAL SCOPE OF WORK DEFINED IN THESE PLANS SHALL BE SUBJECT TO AN EXTRA WORK CHARGE TO THE CONTRACTOR. THIS NOTE GIVES FORMAL NOTICE THAT THE FIRM OF SIEGFRIED ENGINEERING, INC. CANNOT, AND WILL NOT, TAKE RESPONSIBILITY FOR ERRORS OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED OR DETECTED AND/OR CORRECTED OR MITIGATED HAD SIEGFRIED ENGINEERING, INC. PERFORMED THE CONTRACT STAKING WORK.
20. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE CITY OF ROSEVILLE FOR USE OF WATER FROM FIRE HYDRANTS FOR CONSTRUCTION PURPOSES. THE PERMIT SHALL BE APPROVED BY THE CITY OF ROSEVILLE FIRE DEPARTMENT.
21. THE PROPERTY OWNERS, DEVELOPERS, AND/OR SUCCESSORS IN INTEREST SHALL COMPLY WITH THE PROVISIONS OF THE CALIFORNIA GENERAL CONSTRUCTION ACTIVITY STORM WATER PERMIT AND STATE WATER RESOURCES CONTROL BOARD ORDER NUMBER 99-08-DWQ COMPLIANCE IS MANDATORY PER THE CITY OF ROSEVILLE'S GRADING AND EROSION CONTROL STANDARDS.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT AND A GRADING AND EROSION CONTROL PERMIT PRIOR TO STARTING ANY WORK, UNLESS OTHERWISE APPROVED BY THE CITY.
23. DUST CONTROL SHALL BE PERFORMED AT ALL TIMES, AT THE CONTRACTORS' EXPENSE, TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH SECTION 10 OF CALTRANS STANDARD SPECIFICATIONS AND THE REQUIREMENTS OF THE CITY OF ROSEVILLE.
24. THE CONTRACTOR SHALL FURNISH, INSTALL OPERATE AND MAINTAIN ALL MACHINERY, APPLIANCES AND EQUIPMENT TO MAINTAIN ALL EXCAVATIONS FREE FROM WATER DURING CONSTRUCTION, AND SHALL DEWATER AND DISPOSE OF THE WATER SO AS TO NOT CAUSE INJURY TO PUBLIC OR PRIVATE PROPERTY, OR TO CAUSE A NUISANCE OR MENACE TO THE PUBLIC. THE DEWATERING SYSTEM SHALL BE INSTALLED AND OPERATED SO THE GROUNDWATER LEVEL OUTSIDE THE EXCAVATION IS NOT REDUCED TO THE EXTENT WHICH WOULD CAUSE DAMAGE OR ENDANGER ADJACENT STRUCTURES OR PROPERTY. ALL COSTS FOR DEWATERING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ALL PIPE CONSTRUCTION. THE STATIC WATER LEVEL SHALL BE DRAWN DOWN A MINIMUM OF 1 FOOT BELOW THE BOTTOM OF EXCAVATION OF ANY FILL TO THE SPECIFIED DENSITY. DISPOSAL OF WATER SHALL BE IN ACCORDANCE WITH THE APPROVED SWPPP AND SHALL NOT DAMAGE PROPERTY, CREATE A PUBLIC NUISANCE OR VIOLATE THE LAW. THE CONTRACTOR SHALL HAVE ON HAND, PUMPING EQUIPMENT AND MACHINERY IN GOOD WORKING CONDITION FOR EMERGENCIES AND SHALL HAVE WORKMEN AVAILABLE FOR ITS OPERATION. THE DEWATERING SYSTEM SHALL OPERATE CONTINUOUSLY UNTIL BACK-FILL HAS BEEN COMPLETED TO 1 FOOT ABOVE THE NORMAL STATIC GROUNDWATER LEVEL.
25. SITE PREPARATION SHALL INCLUDE STRIPPING AND REMOVAL OF ALL VEGETATION AND ANY DEBRIS FROM THE CONSTRUCTION AREAS. THE DEPTH OF STRIPPING ONSITE SHALL BE EVALUATED BY THE OWNER'S SOILS ENGINEER.
26. ANY VOIDS LEFT BY THE REMOVAL OF UNDERGROUND UTILITIES OR OTHER BURIED OBJECTS SHALL BE CLEANED OF ALL LOOSE SOILS AND SHALL BE PROPERLY BACKFILLED WITH ENGINEERED FILLED THAT THE OWNER'S SOIL ENGINEER APPROVES, MONITORS, TESTS, AND APPROVES.
27. THE SUBGRADE SOILS BENEATH ALL PAVING AREAS SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE DRY DENSITY WHICH THE OWNER'S SOIL ENGINEER SPECIFIES.
28. ANY SOFT OF LOOSE SOIL POCKETS FOUND ONSITE DURING THE STRIPPING OR RECOMPACTION PROCESS, THEY SHALL BE OVER EXCAVATED AND RECOMPACTED.
29. ENGINEERED FILL SHALL BE PLACED IN HORIZONTAL LAYERS A MAXIMUM OF 8 INCHES IN LOOSE THICKNESS AND BE COMPACTED TO A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY THE OWNER'S SOIL ENGINEER.
30. SUBGRADE SOILS UNDER EXTERIOR CONCRETE SHALL BE MOISTURE CONDITIONED AS APPROVED, TESTED AND INSPECTED BY THE OWNER'S SOIL ENGINEER.
31. CONTRACTOR SHALL MAINTAIN MOISTURE CONDITION RIGHT UP TO POURING OF CONCRETE.

GRADING NOTES

1. GRADING AND LAND STABILIZATION SHALL INCLUDE EXCAVATION AND FILL OF STREETS IN ACCORDANCE WITH THE SPECIFICATIONS OF THE SOILS ENGINEER AND UNDER THE DIRECTION, SUPERVISION, MONITORING, TESTING AND APPROVAL OF THE OWNER AND OWNER'S SOILS ENGINEER.
2. GRADING AND LAND STABILIZATION SHALL INCLUDE COST OF DEWATERING; REMOVING FROM THE SITE ALL STRIPPED VEGETATION, DEBRIS, STRUCTURES, POWER POLES, EXISTING PAVEMENT, BUILDINGS, TREES, AND OTHER DELETERIOUS MATERIALS.
3. STOCKPILES OF EXISTING DELETERIOUS MATERIAL SHALL BE DISPOSED OF UNDER THE DIRECTION AND SUPERVISION OF THE OWNER AND OWNER'S SOILS ENGINEER.
4. ALL IMPORTED FILL SHALL BE APPROVED BY THE SOILS ENGINEER.
5. TOPOGRAPHICAL INFORMATION SHOWN REFLECTS A TOPOGRAPHY SURVEY PERFORMED BY SIEGFRIED ENGINEERING AND RECORD INFORMATION, CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.
6. ANY AND ALL SEDIMENT AND/OR EROSION CONTROL DETAILS CONTAINED WITHIN THESE PLANS ARE TO BE CONSIDERED AS "REFERENCE DETAILS" ONLY AND THE CITY'S APPROVAL OF THESE PLANS AND "REFERENCE DETAILS" DOES NOT RELIEVE THE OWNER/DEVELOPER FROM COMPLIANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN AS APPROVED BY THE CITY'S STORM WATER DIVISION.

UTILITY NOTES

WATER

1. ALL WATER LINES SHALL BE PRESSURE-TESTED, DISINFECTED, FLUSHED, AND TESTED FOR BACTERIA IN CONFORMANCE WITH THE CITY OF ROSEVILLE SPECIFICATIONS PRIOR TO FINAL ACCEPTANCE BY THE CITY.
2. ALL WATER SERVICES SHALL BE 1" MINIMUM. WATER SERVICE SHALL BE CONNECTED TO WATER MAINS WITH TWO-STRAP BRONZE SADDLES. CITY SHALL MAKE ALL TAPS ON EXISTING WATER MAINS ONLY.
3. ALL VALVES, TEES AND CROSSES TO BE FLANGED TO THEIR RESPECTIVE FITTINGS. WATER VALVES TO BE RESILIENT SEAT ONLY.
4. WATER LINES, VALVES, BACKFLOW PREVENTER DEVICES, FIRE HYDRANTS, ETC. SHALL BE IN ACCORDANCE WITH CITY OF ROSEVILLE STANDARDS.
5. ALL VALVE STEMS MUST BE BROUGHT TO A MINIMUM OF 4' BELOW FINISH GRADE WITH STEM EXTENSION UNITS.
6. THRUST BLOCKS SHALL BE PROVIDED AT ALL REQUIRED LOCATIONS ON WATER LINE IN ACCORDANCE WITH THE CITY OF ROSEVILLE SPECIFICATIONS AND DETAILS.

STORM DRAIN

1. STORM DRAIN PIPE SIZES SHALL NOT BE CHANGED WITHOUT THE APPROVAL OF THE CITY ENGINEER AND THE DESIGN ENGINEER.
2. STORM DRAIN PIPE ALTERNATIVES:
    a. PRECAST REINFORCED CONCRETE PIPE (RCP), PER CITY OF ROSEVILLE STANDARD
    b. HIGH DENSITY POLYETHYLENE PIPE (HDPE), PER CITY OF ROSEVILLE STANDARD
    c. POLYVINYL CHLORIDE PIPE (PVC), PER CITY OF ROSEVILLE STANDARD
    d. STEEL REINFORCED HIGH DENSITY POLYETHYLENE PIPE (SRHDPE), PER CITY OF ROSEVILLE STANDARD
    e. CAST-IN-PLACE CONCRETE PIPE, PER CITY OF ROSEVILLE STANDARD
3. CATCH BASINS TO BE CONSTRUCTED PER CITY STANDARD DETAILS.
4. ALL CONSTRUCTION SITE ACTIVITIES, REGARDLESS OF PROJECT SIZE, SHALL CONFORM TO CHAPTER 16 OF THESE STANDARDS. PROJECTS GREATER THAN ONE (1) ACRE SHALL ALSO CONFORM TO THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) GENERAL CONSTRUCTION ACTIVITY STORM WATER PERMIT.

SANITARY SEWER

1. SANITARY SEWER MANHOLES AND PIPE SHALL BE IN ACCORDANCE WITH CITY OF ROSEVILLE STANDARDS.

ABBREVIATION / DESCRIPTION

ABBREVIATION	DESCRIPTION
@	AT
AB	AGGREGATE BASE
ABS	ACRYLONITRILE-BUTADIENE-STYRENE
AC	ASPHALT CONCRETE
BCR	BEGINNING OF CURB RETURN
BO	BLOWOFF
BOC	BACK OF CURB
BOW	BACK OF WALK
C & G	CURB AND GUTTER
C,G, & SW	CURB, GUTTER, AND SIDEWALK
CL	CENTERLINE
CB	CATCH BASIN
CJ	CONSTRUCTION JOINT
CO	CLEANOUT
COR	CITY OF ROSEVILLE
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
EBOW	EXISTING BACK OF WALK
ECR	END OF CURB RETURN
EL	ELEVATION
EG	EXISTING GROUND
EP	EDGE OF PAVEMENT, EXISTING PAVEMENT
ESMT	EASEMENT
EX.	EXISTING
FL	FLOWLINE
FH	FIRE HYDRANT
FOC	FACE OF CURB
FT.	FEET
G	GROUND
GB	GRADE BREAK
HP	HIGH POINT
ID	INSIDE DIAMETER
IN.	INCH
LF	LINEAL FEET
LH	LAMP HOLE
LP	LOW POINT
LT	LEFT
LTS	LIME TREATED SUB-BASE
MAX	MAXIMUM
MH	MAINTENANCE HOLE
MIN	MINIMUM
NO.	NUMBER
NRCP	NON-REINFORCED CONCRETE PIPE
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
P	PAVEMENT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
POT	POINT OF TANGENCY
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PT	POINT
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
PL	PROPERTY LINE
R	RADIAL OR RADIUS
R/W	RIGHT-OF-WAY
RC	ROLL-CURB
RCP	REINFORCED CONCRETE PIPE
RP	RADIUS POINT
RT	RIGHT
SD	STORM DRAIN
SS	SANITARY SEWER
SL	STREET LIGHT
SW	SIDEWALK
SDMH	STORM DRAIN MAINTENANCE HOLE
SHT	SHEET
SSMH	SANITARY SEWER MAINTENANCE HOLE
STA	STATION
STD	STANDARD
TC	TOP OF CURB
TOW	TOP OF WALL
THRU	THROUGH
TI	TRAFFIC INDEX
TYP	TYPICAL
VERT	VERTICAL
W	WATER
WP	WEAKENED PLANE
(W)	WEST
(E)	EAST
(S)	SOUTH
(N)	NORTH
±	PLUS OR MINUS

LEGEND

EXISTING		PROPOSED
100	CONTOUR MAJOR	100
95	CONTOUR MINOR	95
11.93EC	CONCRETE ELEVATION	11.93C
11.93ETC / 11.43EP	TOP OF CURB ELEVATION / PAVEMENT ELEVATION	11.93TC / 11.43P
12.05EP	PAVEMENT ELEVATION	12.05P
11.93ETC / 11.43EFL	TOP OF CURB ELEVATION / FLOW LINE ELEVATION	11.93TC / 11.43FL
12.05EFL	FLOWLINE ELEVATION	12.05FL
12.05EFG	FINISHED GRADE ELEVATION	12.05FG
	PROPERTY & R/W LINE	
	EASEMENT LINE	
8"SS	SANITARY SEWER LINE	8"SS
8"SD	STORM DRAIN LINE	8"SD
12"W	WATER LINE	12"W
6"FS	FIRE SERVICE LINE	6"FS
	AREA DRAIN	
	DRAIN INLET	
	CATCH BASIN	
	CONCRETE WALK	
	6" VERTICAL CURB	
	GATE VALVE	
	SITE LIGHT	
	FIRE HYDRANT	
	UTILITY POLE	
	ANCHOR GUY	
	SIGN	
B	BOLLARD	
	TREE	
BFP	BACKFLOW PREVENTER	BFP
	FIRE DEPARTMENT CONNECTION	
E E	ELECTRICAL BOX	E E
W	WATER METER	W
	MAINTENANCE HOLE PER COR STD DETAIL NO. DR-4	
TSB T	TRAFFIC SIGNAL BOX/VAULT	TSB T
C	CABLE BOX	C

Know what's **below.** **Call** before you dig.

Dreyfuss+Blackford architecture

SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

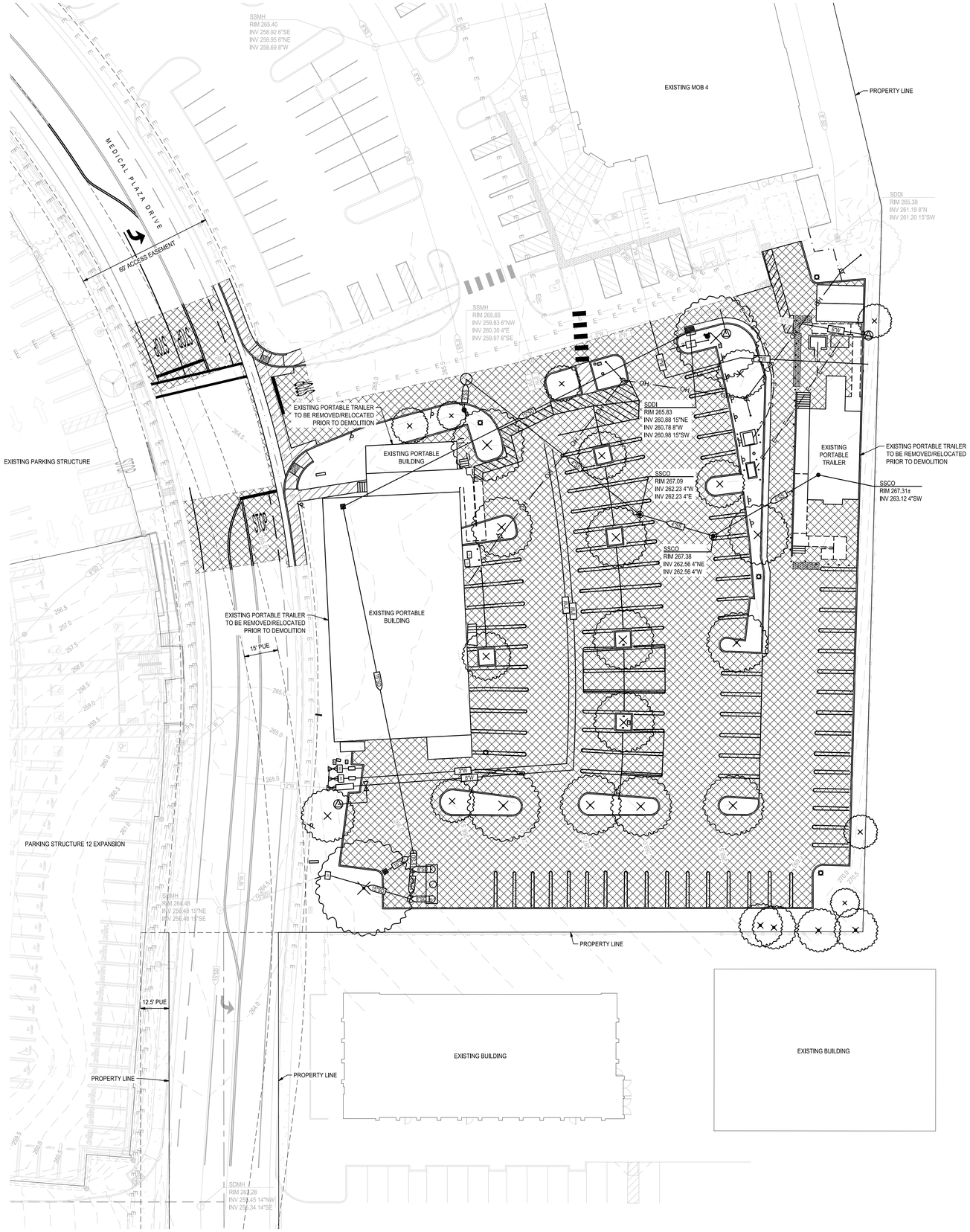
GENERAL NOTES

C1014.00

.2 MAY 2022

C1.1

f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C1.1 GENERAL NOTES.dwg
2/8/2022 3:10:00 PM



811 Know what's **below.** **Call** before you dig.

DEMOLITION LEGEND:

- CLEAR AND GRUB EXISTING UNDEVELOPED AREAS, REMOVAL DEPTH SHALL ACCOMMODATE DEPTH OF PROPOSED IMPROVEMENTS.
- REMOVE AND DISPOSE OF EXISTING CONCRETE, REMOVAL DEPTH SHALL ACCOMMODATE DEPTH OF PROPOSED IMPROVEMENTS.
- REMOVE AND DISPOSE OF EXISTING ASPHALT PAVEMENT, REMOVAL DEPTH SHALL ACCOMMODATE DEPTH OF PROPOSED IMPROVEMENTS.
- EXISTING CONCRETE TO REMAIN

DEMOLITION NOTES:

1. PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES, THE CONTRACTOR SHALL HAVE THE EXISTING DRY UTILITIES POT HOLED FOR VERIFICATION OF LOCATION AND DEPTH. AT SUCH TIME, POT HOLE DATA SHALL BE PROVIDED TO THE ENGINEER FOR DETERMINATION OF ADEQUATE CLEARANCE AND SEPARATION.
2. ALL EXCAVATIONS SPOILS, INCLUDING, BUT NOT LIMITED TO CONCRETE AND PAVEMENT EXCAVATION, SHALL BE EXPORTED AND DISPOSED OF BY THE CONTRACTOR.
3. EXISTING STRUCTURES, CONCRETE, PAVEMENT, FENCES, CURBS, UTILITY BOXES, LIGHTS, GATES, ETC. NOT CALLED OUT IN PLANS TO BE REMOVED OR TO REMAIN SHALL BE PROTECTED IN PLACE.
4. CONTRACTOR TO PROVIDE TREE PROTECTION AS NECESSARY DURING CONSTRUCTION TO PRESERVE EXISTING TREES. TREES NOT IDENTIFIED AS TO BE REMOVED OR TO REMAIN ARE ASSUMED TO REMAIN.
5. EXISTING CONCRETE AND PAVEMENT UNDER TEMPORARY PORTABLE BUILDINGS/TRAILER TO BE REMOVED WITH OTHER AREAS.

0' 10' 20' 40'
SCALE: 1"=20'

Dreyfuss+Blackford architecture

SIEGFRIED
- CIVIL
- STRUCTURAL
- LANDSCAPE ARCHITECTURE
- SURVEYING
- PLANNING
- ATHLETIC FACILITY DESIGN

900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER.

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

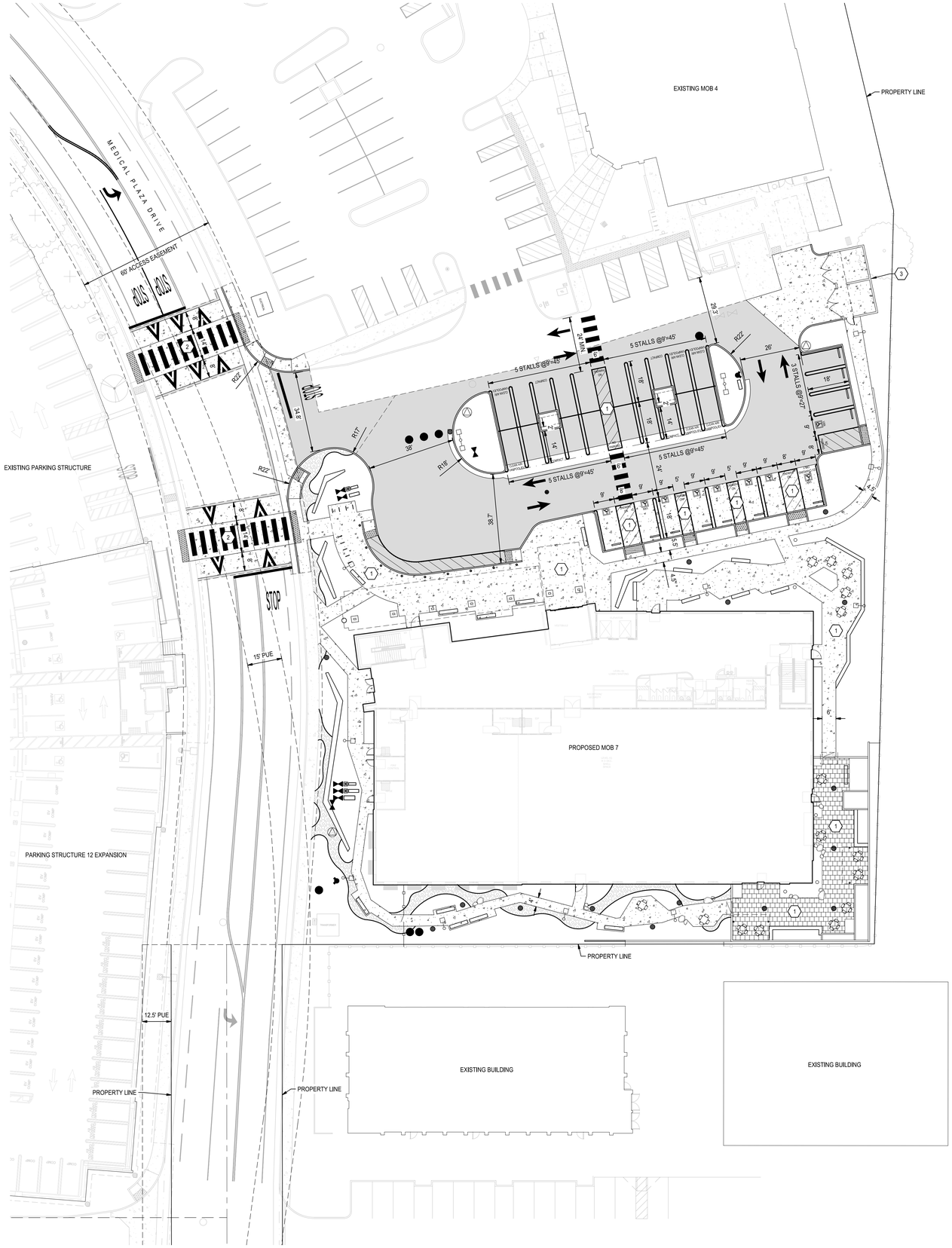
TOPOGRAPHY & DEMOLITION PLAN

C1014.00

:2 MAY 2022

C2.0

2/8/2022 3:10:00 PM f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C2.0 TOPOGRAPHY & DEMOLITION PLAN.dwg



PAVING LEGEND:

- CONCRETE
- ASPHALT PAVEMENT
- PAVERS
- COBBLE
- TRUNCATED DOMES
  TRUNCATED DOMES COMPLYING WITH CBC 11B-705.
- EXISTING CONCRETE
  CONCRETE TO REMAIN

PAVING KEY NOTES:

1. 1.5% MAX SLOPES IN ALL DIRECTIONS
2. PROPOSED SPEED TABLE CROSSWALK; SEE DETAIL 1 & 2, SHEET C8.0
3. PROPOSED TRASH ENCLOSURE

GENERAL PAVING AND DIMENSIONING NOTES:

ALL MATERIAL AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THE PROJECT SHALL CONFORM TO ALL APPLICABLE CITY OF ROSEVILLE STANDARD SPECIFICATIONS (LATEST EDITION).

1. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY QUESTION THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
2. ALL DIMENSIONS ARE TO FACE OF CURB, FACE OF BUILDING, CENTER OF PAINT STRIPING OR PERPENDICULAR TO THE PROPERTY LINE. CONTRACTOR SHALL VERIFY DIMENSIONS MATCH STRUCTURAL AND ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.
3. ALL COORDINATE POINTS ARE AT FACE OF CURB OR RADIUS POINT. BUILDING CONTROL POINTS ARE AT THE OUTER MOST EDGE OF THE BUILDING ENVELOPE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. ANY UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITIONS, ANY DAMAGE DONE TO EXISTING UTILITIES, FENCE, PAVEMENT, CURBS, DRIVEWAYS OR SIDEWALKS TO REMAIN (NO SEPARATE PAY ITEM).
7. THE CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT, CURBS, AND SIDEWALKS AT NEW PAVEMENT, CURB AND SIDEWALK JUNCTURES. NO JAGGED OR IRREGULAR CUTS WILL BE ALLOWED OR ACCEPTED.
8. REFER TO SITE PAVING PLAN, ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, IRRIGATION AND LANDSCAPING PLANS FOR ADDITIONAL INFORMATION.
9. SEE CIVIL DETAIL SHEET FOR APPLICABLE DETAILS.
10. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
11. THE CONTRACTOR SHALL VERIFY ELEVATIONS AND LOCATIONS OF EXISTING FACILITIES AND NOTIFY THE ENGINEER OF ANY CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
12. ALL PAINT SHALL BE 4" WIDE REFLECTIVE PAINT: WHITE ON ASPHALT PAVING AND WHITE ON TOP OF 6" WIDE BLACK STRIPE ON CONCRETE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
13. ALL PAVEMENT MARKINGS SHALL RECEIVE TWO COATS OF PAINT.
14. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOUT A PERMIT.
15. ALL SIGNS SHALL CONFORM TO MUTCD, LATEST EDITION.
16. ALL CONCRETE SIDEWALK SHALL BE 5' MIN. WIDTH UNLESS OTHERWISE SPECIFIED. SLOPED AT 1.25% TOWARDS CURB.
17. ALL CURBS ARE 6" HIGH UNLESS OTHERWISE NOTED.
18. FOR ACCESSIBLE PATH OF TRAVEL, SEE SHEET C4.0, OVERALL GRADING PLAN.

0' 10' 20' 40'
SCALE: 1"=20'

Know what's **below.**
Call before you dig.

2/8/2022 3:10:00 PM f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C3.0 PAVING & DIMENSIONING PLAN.dwg

Dreyfuss+Blackford architecture

SIEGFRIED
- CIVIL
- STRUCTURAL
- LANDSCAPE ARCHITECTURE
- SURVEYING
- PLANNING
- ATHLETIC FACILITY DESIGN

900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

PAVING & DIMENSIONING PLAN

C1014.00

.2 MAY 2022

C3.0



LEGEND

%	GRADE SLOPE PERCENTAGE
3.0	EXISTING GROUND CONTOUR
3.0	PROPOSED GROUND CONTOUR
G.B.	GRADE BREAK
RIDGE	RIDGE

GRADING LEGEND

ABBREVIATION	DESCRIPTION
BW	BACK OF WALK
BOW	BOTTOM OF WALL
C	CONCRETE
DG	DECOMPOSED GRANITE
EC	EXISTING CONCRETE
EFL	EXISTING FLOWLINE
EG	EXISTING GROUND
EL	ELEVATION
EP	EXISTING PAVEMENT
EX.	EXISTING
FF	FINISHED FLOOR ELEVATION
FG	FINISH GROUND
FP	FINISH PAD ELEVATION
FL	FLOWLINE
G	GROUND
GB	GRADE BREAK
HP	HIGH POINT
LB	LIGHT BASE
LP	LOW POINT
MAX	MAXIMUM
MIN	MINIMUM
P	PAVEMENT
TC	TOP OF CURB
TOW	TOP OF WALL
TYP	TYPICAL

Know what's **below.**
Call before you dig.

0' 10' 20' 40'
SCALE: 1"=20'

Dreyfuss+Blackford architecture

SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

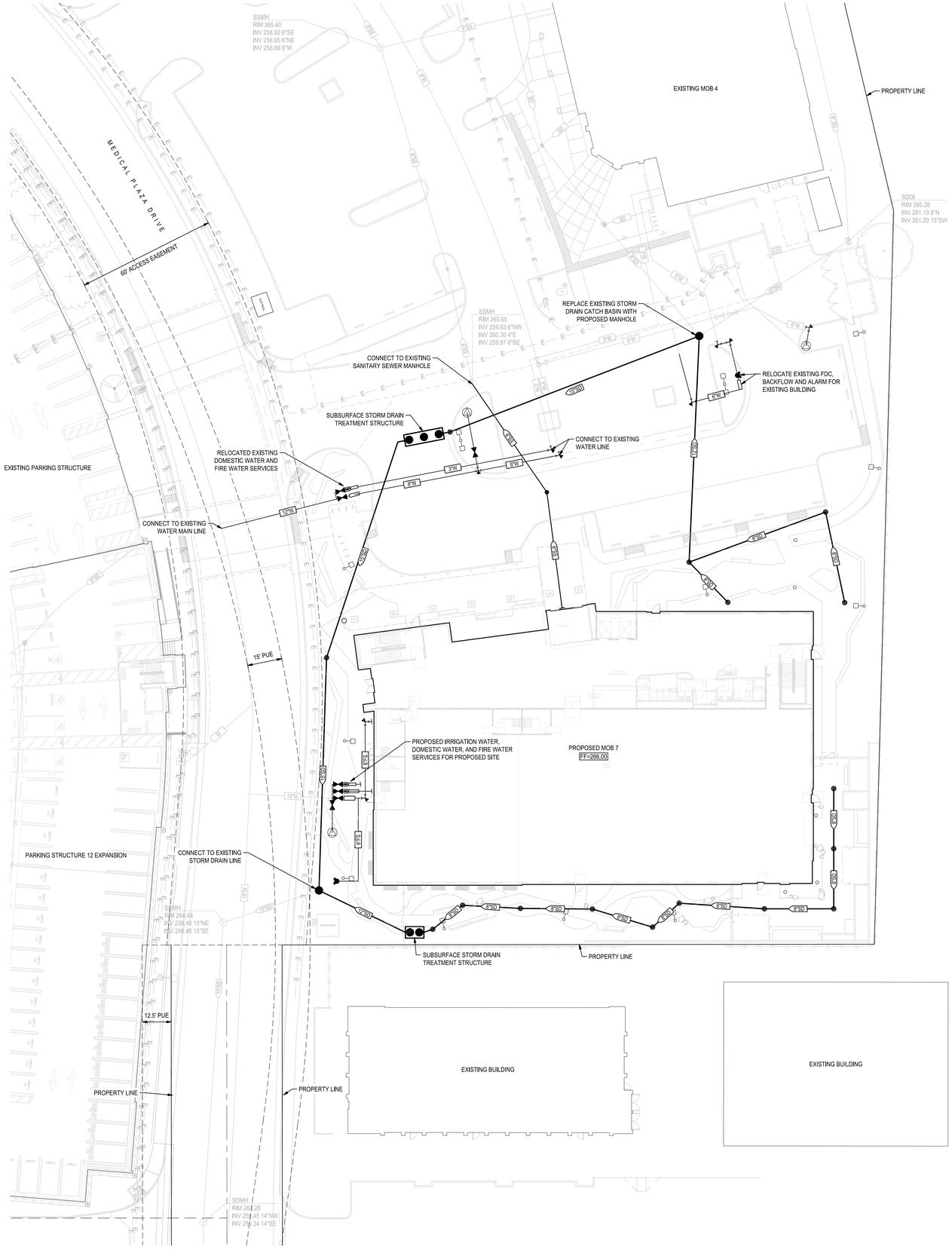
GRADING PLAN

C1014.00

2 MAY 2022

C4.0

2/8/2022 3:10:00 PM f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C4.0 GRADING PLAN.dwg



UTILITY LEGEND

- PROPOSED MANHOLE
- PROPOSED DRAIN INLET
- SHUT OFF VALVE
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED FIRE HYDRANT
- PROPOSED BACKFLOW PREVENTION DEVICE
- EXISTING MANHOLE
- EXISTING UTILITY BOX/VAULT
- EXISTING STORM DRAIN CATCH BASIN
- EXISTING STORM DRAIN INLET
- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM DRAIN PIPE
- PROPOSED WATER LINE
- PROPOSED FIRE SERVICE LINE
- PROPOSED FIRE HYDRANT LINE
- PROPOSED IRRIGATION LINE
- EXISTING STORM DRAIN PIPE
- EXISTING SANITARY SEWER PIPE
- EXISTING WATER LINE
- EXISTING OVERHEAD LINE
- EXISTING AT&T LINE
- EXISTING PG&E LINE

UTILITY CONSTRUCTION NOTES:

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL CONFORM TO ALL APPLICABLE CITY OF ROSEVILLE STANDARD SPECIFICATIONS (LATEST EDITION) AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (LATEST EDITION).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
3. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
4. ALL UTILITIES SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
5. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CITY PUBLIC SERVICE MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
6. ALL SPOIL AND OTHER UNSUITABLE MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
7. EXTREME CAUTION SHALL BE USED WHEN NEAR PG&E FACILITIES. EXACT DEPTH AND LOCATION OF PG&E GAS MAIN UNKNOWN
8. WATER SERVICES NOT USED SHALL BE REMOVED AT THE MAIN. CONTRACTOR SHALL OBTAIN ENCROACHMENT PERMIT FROM CITY OF STOCKTON FOR THIS WORK.
9. PROVIDE AN 18 GAUGE (BLUE) TRACER WIRE WITH SITE PVC PIPING

EXISTING UTILITIES:

1. EXISTING UTILITY DATA SHOWN ON THIS LAYOUT WAS OBTAINED FROM A SURVEY OF THE VISIBLE FEATURES AT THE SITE AND PUBLIC RECORD MAPS OBTAINED FORM UTILITY COMPANIES.
2. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES WITHIN 48 HOURS PRIOR OF CONSTRUCTION TO LOCATE AND TAG THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.
3. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE UTILITY RECORD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.
4. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY CONFLICTS IMMEDIATELY. ANY DAMAGE BY THE CONTRACTOR TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.

TRENCH EXCAVATION SAFETY PROTECTION:

CONTRACTOR AND / OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN / GEOTECHNICAL / SAFETY / EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS, AND / OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND / OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND / OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

0' 10' 20' 40'
SCALE: 1"=20'

811 Know what's **below.** **Call** before you dig.

Dreyfuss+Blackford architecture
SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

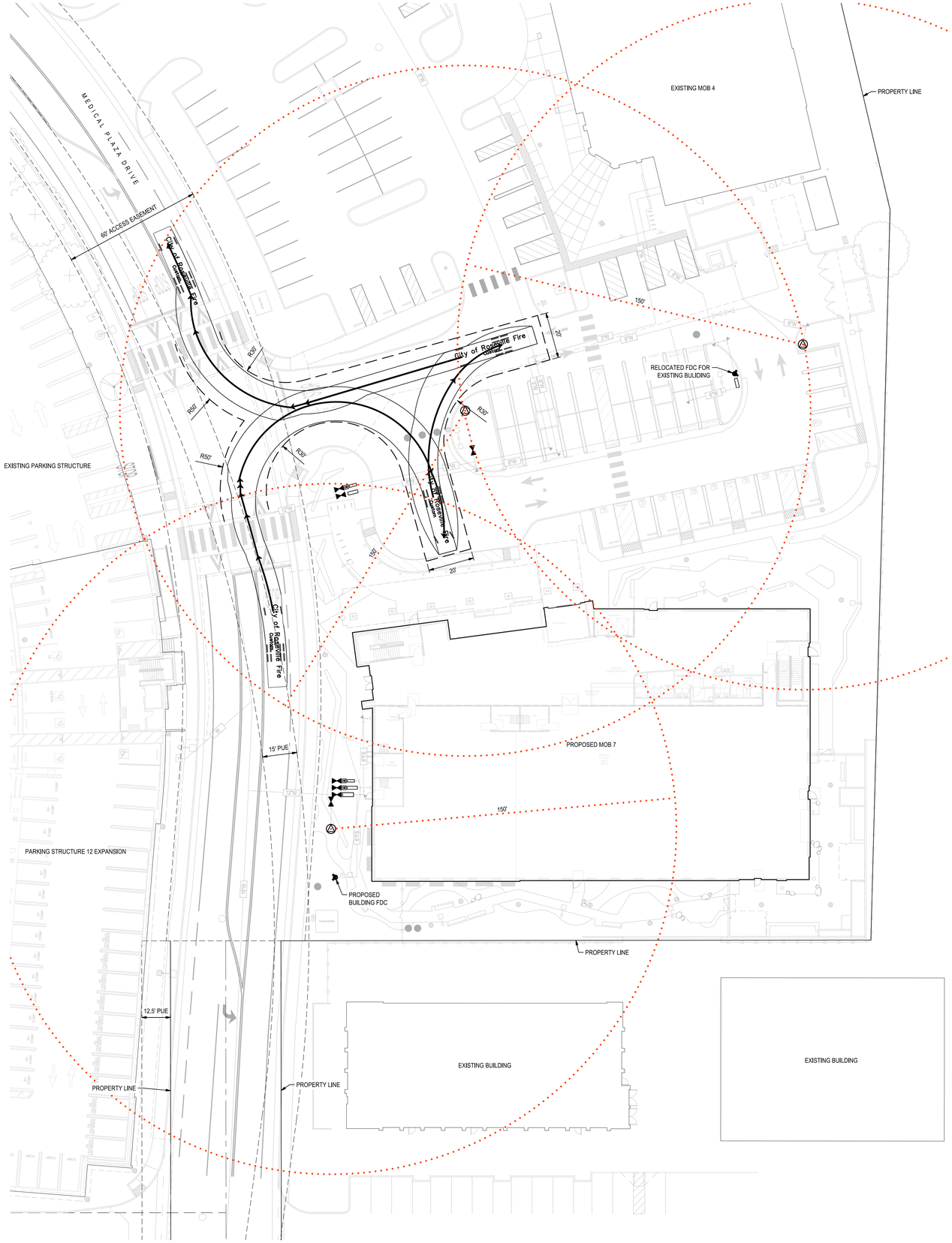
UTILITY PLAN

C1014.00

2 MAY 2022

C5.0

2/8/2022 3:10:00 PM f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C5.0 UTILITY PLAN.dwg



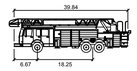
Know what's **below.**
Call before you dig.

0' 10' 20' 40'
SCALE: 1"=20'

LEGEND:

- SHUT OFF VALVE
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED FIRE HYDRANT WITH 150' HOSE SWEEP

TRUCK USED:



City of Roseville Fire

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 25.0

Dreyfuss+Blackford architecture

SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

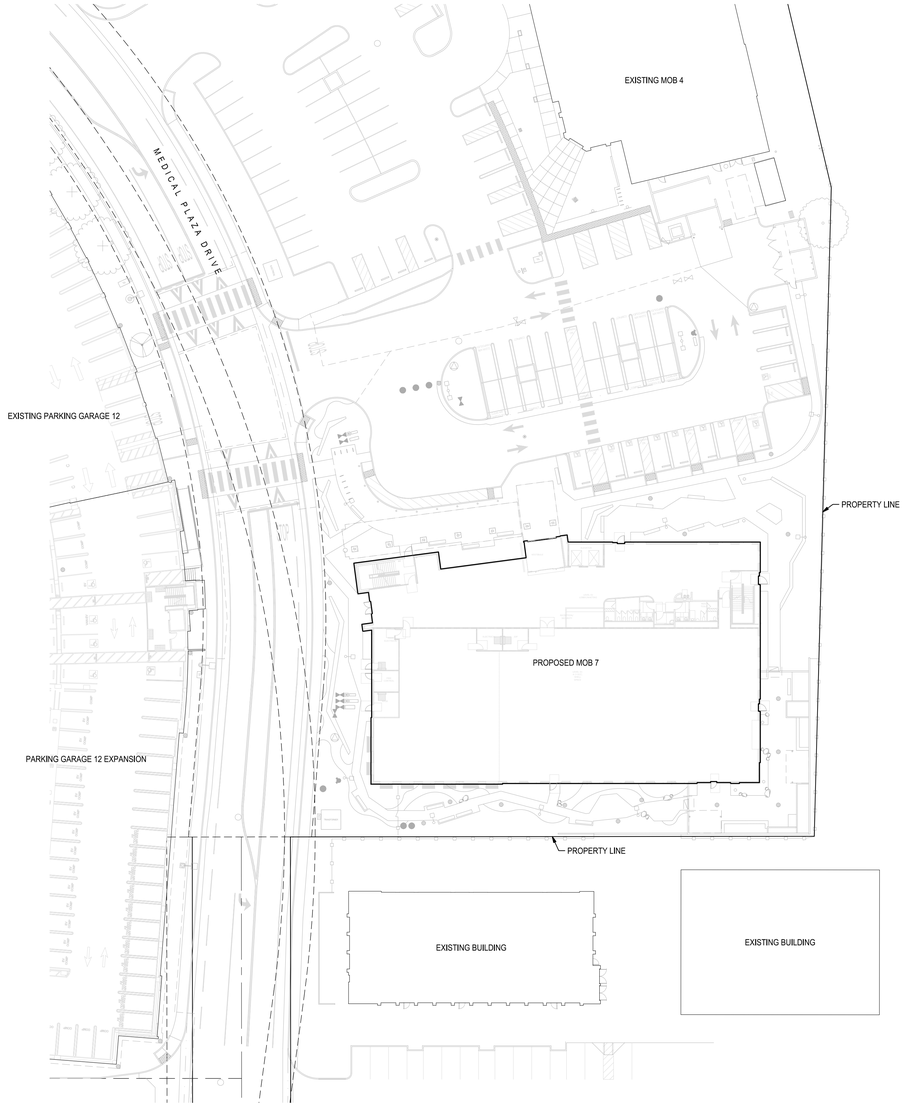
FIRE PROTECTION PLAN

C1014.00

:2 MAY 2022

C6.0

f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C6.0 FIRE PROTECTION PLAN.dwg
2/8/2022 3:10:00 PM



EROSION CONTROL PLAN
SCALE: 1" = 30'

EROSION CONTROL GENERAL NOTES:

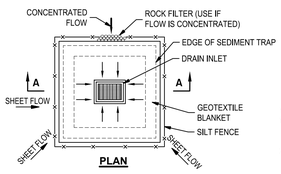
1. PLANS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW ALL OFFSETS. THE SITE IS DYNAMIC AND CHANGES ON A DAILY BASIS. CHANGES SHOULD BE MADE ACCORDING TO EXISTING CONDITIONS. BECAUSE IT IS IMPOSSIBLE TO PREDICT ALL POSSIBLE SITUATIONS, CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES TO ENSURE QUALITY CONTROL.
2. THE CONTRACTOR SHALL REVIEW THE CURRENT STORM WATER POLLUTION PREVENTION PLAN (SWPPP), IT IS THE CONTRACTORS SOLE RESPONSIBILITY FOR CONDUCTING HIS/HER OPERATIONS IN ADHERENCE TO THE SWPPP. THE CONTRACTOR IS RESPONSIBLE FOR ANY FINES, DELAYS, AND/OR DAMAGES RESULTING FROM ANY STATE WATER QUALITY CONTROL BOARD SANCTIONS CAUSED BY THE OPERATION OF THE CONTRACTOR OF HIS/HER SUBCONTRACTORS.
3. THE FOLLOWING PLANS ARE ACCURATE FOR EROSION CONTROL PURPOSES ONLY. THE CONTRACTOR SHALL FOLLOW THESE PLANS UNLESS FIELD CONDITIONS DICTATE MODIFICATION. IF MODIFICATION IS NECESSARY, A SWPPP AMENDMENT MUST BE DONE, THIS MAY REQUIRE MODIFICATION TO THESE DRAWINGS AND ENGINEER CONCURRENCE.
4. INSPECT AND REPAIR FILTERS AFTER EACH STORM EVENT. REMOVE SEDIMENT WHEN 1/2 OF THE FILTER DEPTH HAS BEEN FILLED. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA TRIBUTARY TO A SEDIMENT BASIN OR OTHER FILTERING MEASURE. SEDIMENT AND GRAVEL SHALL BE IMMEDIATELY REMOVED FROM PAVEMENT OF ROAD.
5. UNFINISHED AND DISTURBED AREAS ARE TO BE PROTECTED WITH AN APPLICATION OF BLOWN STRAW AND ORGANIC BINDER.

ITEM	LB/ACRE
STRAW	4,000
ORGANIC BINDER	200

6. ALTERNATE INLET PROTECTION SHALL BE USED ON ROADS OPEN TO THE PUBLIC IF ANY HAZARDOUS MATERIALS OR WASTES WHICH HAVE BEEN TREATED, STORED, DISPOSED, SPILLED, OR LEAKED IN SIGNIFICANT QUANTITIES ONTO THE CONSTRUCTION SITE, THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE THEM FROM THE SITE AND DISPOSE OF PROPERLY.
7. CHLORINATED OR DECHLORINATED WATER SHALL NOT BE DISCHARGED INTO THE STORM DRAIN SYSTEM. THE CONTRACTOR MAY DISPOSE THIS WATER INTO THE SANITARY SEWER SYSTEM UPON APPROVAL BY THE GOVERNING AGENCY.
8. THE CONTRACTOR SHALL KEEP MAINTENANCE, INSPECTION, AND REPAIR PROCEDURES TO ENSURE THAT ALL GRADED SURFACES, WALLS, BERMS, DRAINAGE STRUCTURES, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER CONTROLS ARE MAINTAINED IN GOOD AND EFFECTIVE CONDITION AND ARE PROMPTLY REPAIRED OR RESTORED WHEN NECESSARY. ANY DEWATERING WATER SHALL NOT BE DISCHARGED DIRECTLY INTO THE STORM WATER SYSTEM, AND SHALL NOT BE DISCHARGED INTO THE SEWER SYSTEM.
9. ALL DEWATERING WATER MUST BE CHANNELED THROUGH AN APPROVED SEDIMENT BARRIER PRIOR TO THE WATER ENTERING THE STORM SYSTEM.
10. PAVEMENT CLEANING- FLUSHING OF STREETS/ PARKING LOTS TO REMOVE DIRT AND CONSTRUCTION DEBRIS IS PROHIBITED UNLESS PROPER SEDIMENT CONTROLS ARE USED. PREFERABLY, AREAS REQUIRING CLEANING SHOULD BE SWEPT.
11. ALL STOCKPILES OF MATERIALS THAT ARE NOT GOING TO BE USED FOR 14 DAYS SHALL BE COVERED.
12. CONTRACTOR TO USE BEST MANAGEMENT PRACTICES (BMPs) THROUGHOUT CONSTRUCTION. USE ALL BMPs THAT APPLY TO THE PROJECT, INCLUDING BUT NOT LIMITED TO THE FOLLOWING BMPs:
    - A. DRAIN INLET PROTECTION - CALIFORNIA STORMWATER BMP HANDBOOK SECTION SE-10
    - B. SOLID WASTE MANAGEMENT - CALIFORNIA STORMWATER BMP HANDBOOK SECTION WM-5
    - C. MATERIAL STORAGE - CALIFORNIA STORMWATER BMP HANDBOOK SECTION WM-1
    - D. PAVING - CALIFORNIA STORMWATER BMP HANDBOOK SECTION NS-3
    - E. DUST CONTROL, SEDIMENT CONTROL, EROSION CONTROL AND CONCRETE WASHOUT AREAS - SHOWN ON THIS SHEET WITH DETAILS

EROSION CONTROL LEGEND:

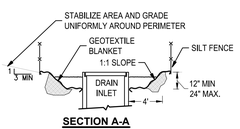
SYMBOL	DESCRIPTION
	FIBER ROLLED WATTLE, SEE DETAIL THIS SHEET
—— X ——	CONSTRUCTION FENCE
	SILT FENCE, SEE DETAIL THIS SHEET
	DRAIN INLET PROTECTION, SEE DETAIL THIS SHEET
	STABILIZED CONSTRUCTION ENTRANCE/EXIT, SEE DETAIL THIS SHEET
	CONCRETE WASHOUT, CONTRACTOR TO DETERMINE LOCATION, SEE DETAIL THIS SHEET
	FLOW DIRECTION (EXISTING)
	FLOW DIRECTION (PROPOSED)
	GRAVEL BAGS



PLAN

NOTE:
REMOVE SEDIMENT BEFORE REACHING 1/3 FULL.

NOTES:
1. FOR USE IN CLEARED AND GRUBBED AND IN GRADED AREAS.
2. SHAPE BASIN SO THAT LONGEST INFLOW AREA FACES LONGEST LENGTH OF TRAP.
3. FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATION WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.

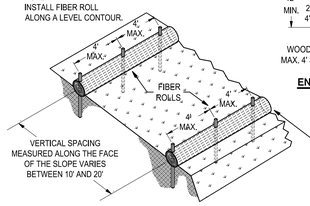


SECTION A-A

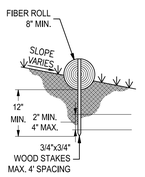
1 DI PROTECTION - TYPE 2
SCALE: NTS

SLOPE %	ROLL SPACING
0-25	50 FT
25-50	15 FT
50% OF GREATER	10 FT

NOTE:
INSTALL FIBER ROLL ALONG A LEVEL CONTOUR.

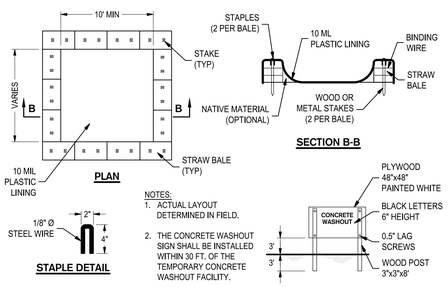


TYPICAL FIBER ROLL INSTALLATION



ENTRENCHMENT DETAIL

2 FIBER ROLLS
SCALE: NTS



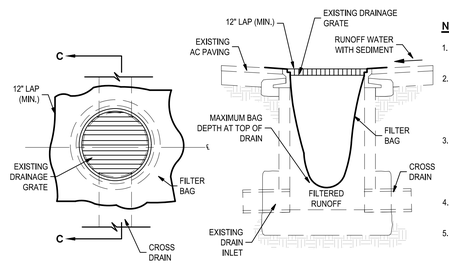
PLAN

SECTION B-B

STAPLE DETAIL

NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

3 CONCRETE WASHOUT
SCALE: NTS

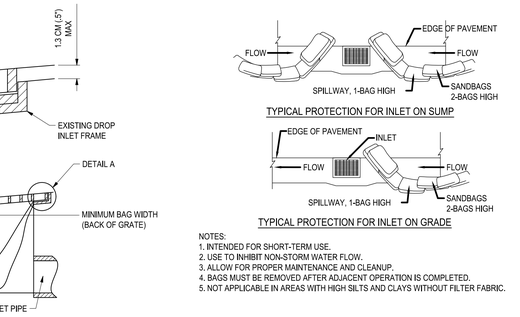


PLAN VIEW

SECTION C-C

NOTES:
1. THE MAXIMUM DRAINAGE AREA PER FILTER SHALL BE NO MORE THAN .06 HECTACRES (2 ACRES).
2. THE FILTER BAG SHALL BE MANUFACTURED FROM UV RESISTANT POLYPROPYLENE NYLON, POLYESTER, OR ETHYLENE FABRIC WITH A MINIMUM TENSILE STRENGTH OF 50 LBS PER LINEAL FOOT. AN EQUIVALENT OPENING SIZE NOT GREATER THAN A 20 SIEVE AND WITH A MINIMUM FLOW RATE OF 40 GALLON/SQFT.
3. THE FILTER BAG MAY BE SUSPENDED FROM OR HELD IN PLACE BY EXISTING INLET GRATE (OR OTHER APPROVED METHOD), PROVIDING NO MODIFICATION OR DRAINAGE SHALL BE DONE TO THE INLET GRATE OR FRAME. THE INLET GRATE SHALL NOT BE CAUSED TO REST MORE THAN 1.3CM (.5") ABOVE THE INLET FRAME (SEE DETAIL A).
4. THE FILTER BAG MAY EXTEND TO THE BOTTOM OF THE INLET BOX PROVIDED THE OUTLET PIPE IS UNOBSTRUCTED.
5. FLOWS SHALL NOT BE ALLOWED TO BYPASS THE BAG. THE BAG OR IT'S FRAME SHALL CATCH FLOWS AT ALL SIDES OF THE INLET EXCEPT AS SHOWN FOR FLOOD RELEASE.
6. INLET FILTER BAGS SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL DURING THE WET SEASON AND MONTHLY DURING THE DRY SEASON. SEDIMENT AND DEBRIS SHALL BE REMOVED BEFORE ACCUMULATIONS HAVE REACHED ONE THIRD THE DEPTH OF THE BAG. BAGS SHALL BE REPAIRED OR REPLACED AS SOON AS DAMAGE OCCURS.

4 TEMPORARY GRAVEL BAG FILTER AT DROP INLET
SCALE: NTS



TYPICAL PROTECTION FOR INLET ON SUMP

TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:
1. INTENDED FOR SHORT-TERM USE.
2. USE TO INHIBIT NON-STORM WATER FLOW.
3. ALLOW FOR PROPER MAINTENANCE AND CLEANUP.
4. BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED.
5. NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

5 CATCH BASIN FILTER BAGS & PROTECTION
NO SCALE

Know what's **below.** **Call** before you dig.

Dreyfuss+Blackford architecture

SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER
MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

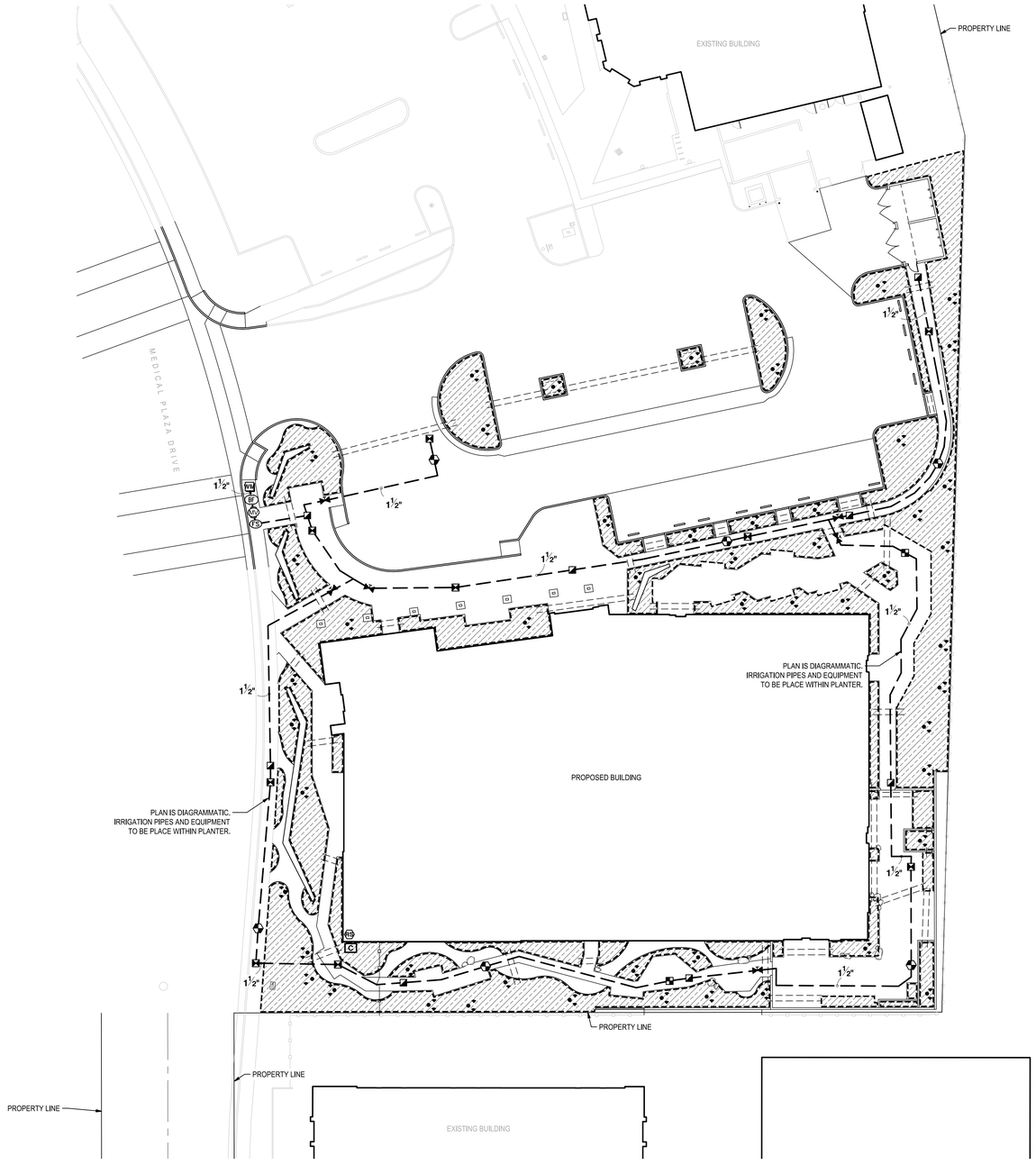
EROSION CONTROL PLAN

C1014.00

:2 MAY 2022

C7.0

2/8/2022 3:10:00 PM f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C7.0 EROSION CONTROL PLAN.dwg



IRRIGATION LEGEND

SYMBOL	DESCRIPTION
	SHRUB DRIPLINE 0.9 GPH @ 12" O.C. Dripline with 0.90 gph emitters at 12" O.C., row spacing at 12" O.C.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
1402	Rain Bird RWS-B-C-SOCK Root Watering System with 4" diameter x 36" long with locking grate, semi-rigid mesh tube. Check Valve and Sand Sock. Rain Bird bubbler: 1402 0.5 GPM. 2 per tree, typical.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird XCZ-100-PRF Medium Flow Drip Control Kit, 1" DV valve, 1" pressure regulating filter, 40psi pressure regulator. 3 GPM-15 GPM.
	Rain Bird XCZ-150-PRB-COM High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2" PESB Valve with two 1" Pressure Regulating 40psi Quick-Check Basket Filters. Flow range: 15-40 GPM.
F	Rain Bird MDCFCAP Dripline Flush cap.
A	Rain Bird ARV050 1/2" Air Relief Valve.
O	Rain Bird OPERIND Drip System Operation Indicator, stem rises 6" for clear visibility when drip system is charged to a minimum of 20psi.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Irritrol 700 (1") Electric Remote Control Valve
	Rain Bird 44-LRC 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.
	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"
MV	Buckner-Superior 3100-PRS 1-1/2" Normally Open Brass Master Valve. Pressure Regulation Feature.
BF	Zurn 375 1-1/2" Backflow prevention device.
C	Rain Bird ESP12LXMEF-LXMM-LXMMPED 24 Station, Traditionally-Wired, Flow Smart (Module Included), Commercial Controller. Install in LXMM-LXMMPED Powder Coated, Metal Wall-Mounted Cabinet w/Pedestal. Rainbird NCC-4GUSA 4G cellular communications cartridge.
RS	Rain Bird WR2-RFS Wireless Rain/Freeze Sensor.
FS	Rain Bird FS-150-B 1-1/2" Flow Sensor for use with Rain Bird Maxicom, SiteControl, and ESP-LXD Central Control Systems. Brass Model. Suggested Operating Range of 4.0 GPM to 80.0 GPM.
WM	Water Meter 1-1/2" Point of connection at new 1-1/2" water meter. See civil plans.
	Irrigation Lateral Line: PVC Schedule 40
	Irrigation Mainline: PVC Schedule 40 (1 1/2")
	Pipe Sleeve: PVC Schedule 40 Typical pipe sleeve for irrigation pipe. Min. size 2x diameter of pipe being sleeved. Extend sleeves 24" beyond edges of paving or construction.

Valve Callout
- # — Valve Number
- # — Valve Flow
- # — Valve Size

TREE LOCATION (PROPOSED)
Layout reference of proposed trees. See sheet L2.0

GENERAL IRRIGATION NOTES

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND STANDARDS.
2. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH. LANDSCAPE SUBCONTRACTOR SHALL GUARANTEE 100% COVERAGE OF SYSTEM.
3. INSTALL NEW REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, EQUIPMENT, OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, LAWN, ETC. AND EACH BOX SHALL BE 12" APART. SHORT SIDE OF RECTANGULAR VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, LAWN, ETC.
4. ALL PVC SLEEVES UNDER PAVEMENT AND ROADWAYS TO BE SCH. 40. SLEEVES TO BE TWICE THE DIAMETER OF PIPE OR WIRE BUNDLE THAT WILL PASS THROUGH SLEEVE. CHANGE ALL RING-TITE PIPE THAT WOULD PASS THROUGH SLEEVES TO CLASS 315 SOLVENT WELD PIPE OF SAME SIZE.
5. THE IRRIGATION CONTRACTOR SHALL NOT WILLFULLY INSTALL THE SYSTEM AS DESIGNED WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT WERE NOT IDENTIFIED IN THE DRAWINGS. SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. OTHERWISE, THE CONTRACTOR MUST ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY REVISIONS.

811 Know what's below. Call before you dig.

IRRIGATION DESIGN SUMMARY

1. NEW IRRIGATION CONNECTION AND ISOLATED LANDSCAPE WATER METER.
2. NEW PEDESTAL, WEATHER-BASED IRRIGATION CONTROLLER WITH RAIN SENSOR.
3. IRRIGATION SHALL CONSIST OF DRIPLINE FOR SHRUBS AND GROUNDCOVERS AND AN ISOLATED VALVE WITH DRIP BUBBLERS FOR TREES.

IRRIGATION SCHEDULING NOTE

PROJECT INCLUDES A NEW IRRIGATION SYSTEM AND REQUIRES THE FOLLOWING MEASURES TO BE MET:

1. IRRIGATION MUST BE SCHEDULED BETWEEN 9:00 P.M. AND 6:00 A.M. UNLESS WEATHER CONDITIONS PREVENT IT.
2. OPERATION OF THE IRRIGATION SYSTEM OUTSIDE THE NORMAL WATERING WINDOW IS ALLOWED FOR AUDITING AND SYSTEM MAINTENANCE.
3. TOTAL ANNUAL APPLIED WATER SHALL BE LESS THAN OR EQUAL TO MAXIMUM APPLIED WATER ALLOWANCE (MAWA) AS CALCULATED PER THE POTABLE WATER USE REDUCTION REQUIREMENTS.

EXISTING IRRIGATION NOTES

1. EXISTING LAYOUT MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
2. MAINLINE AND LATERAL LAYOUT IS TO BE FIELD VERIFIED BY CONTRACTOR.
3. CONTRACTOR RESPONSIBLE FOR MODIFICATIONS TO EXISTING IRRIGATION ADJACENT TO PROJECT AREA. CONTRACTOR TO REMOVE IRRIGATION SYSTEM AND VALVES WITHIN PROJECT AREA AND CAP MAINLINE SYSTEM ACCORDINGLY. EXISTING IRRIGATION TO BE MODIFIED TO MAINTAIN IRRIGATION TO EXISTING PLANT MATERIAL. CONTRACTOR TO COORDINATE EXISTING MAINLINE SYSTEM, SHUT-OFF AND CONTROLLER WITH OWNER.

LANDSCAPE SUMMARY

TOTAL IRRIGATED AREA	12,835 SF
MAXIMUM APPLIED WATER ALLOWANCE (MAWA)	XXX GALLON/YR
ESTIMATED TOTAL WATER USE (ETWU)	XXX GALLON/YR

I SHALL COMPLY WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLANS.

ROBERT J. NORBUTAS, JR., RLA 5595

0' 10' 20' 40'
SCALE: 1"=20'

Dreyfuss+Blackford architecture
SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER.

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

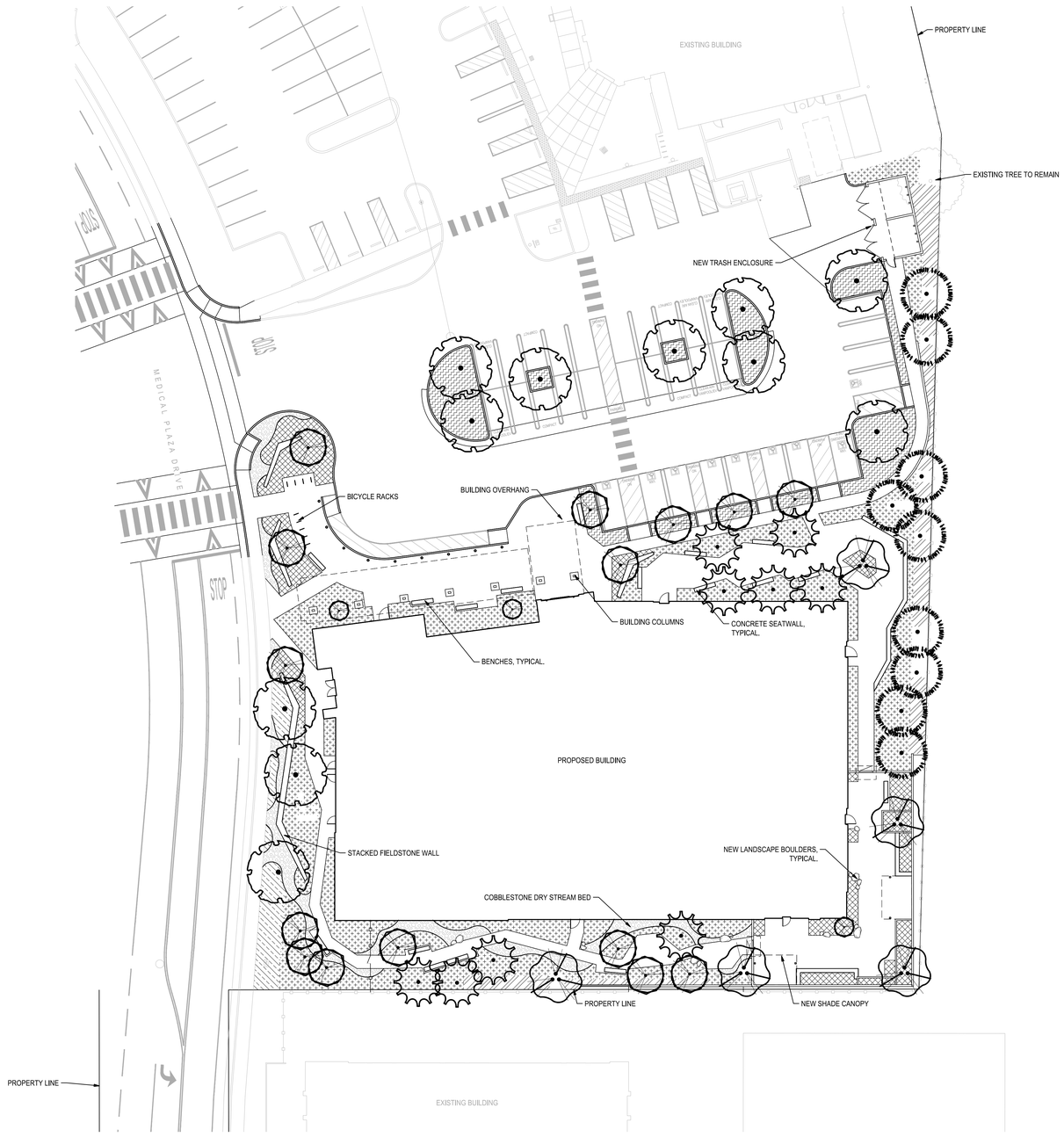
IRRIGATION PLAN

C1014.00

.2 MAY 2022

L1.0

f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-L1.0 IRRIGATION PLAN.dwg
2/8/2022 3:10:00 PM



GENERAL PLANTING NOTES

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH LOCAL AND STATE STANDARDS AND CODES.
2. ALL ASPHALT, BASE COURSE AND OTHER DEBRIS ARE TO BE REMOVED COMPLETELY BELOW PLANTING AREAS TO NATIVE SOIL LEVEL.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR POSITIVE SURFACE DRAINAGE AT 2% MINIMUM IN PLANTING AREAS EXCEPT WHERE SHOWN.
4. THE CONTRACTOR SHALL FURNISH AND APPLY THE APPROPRIATE PRE-EMERGENT HERBICIDE AT RATES PRESCRIBED BY LAW AND THE MANUFACTURER'S RECOMMENDATIONS. ALL PRE-EMERGENT HERBICIDES SHALL BE APPLIED BY LICENSED OPERATORS UNDER FAVORABLE WEATHER CONDITIONS.
5. THE CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING A SOILS TEST AND PROVIDING THE APPROPRIATE AMENDMENTS BASED ON THE TEST RESULTS.
6. FINISH GRADE OF PLANTED AREAS TO BE ONE (1) INCH BELOW PAVING. WATER SOIL THOROUGHLY BEFORE PLANTING. ALL PLANTS SHALL BE SET AT SUCH A LEVEL THAT AFTER SETTLING THEY BEAR THE SAME RELATIONSHIP TO THE SURROUNDING FINISH GRADE AS THEY BORE TO THE SOIL LINE GRADE IN THE CONTAINER, UNLESS OTHERWISE NOTED.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE DRAINAGE OF ALL PLANTINGS, SUFFICIENT TO INSURE HEALTHY GROWTH.

TREE NOTES

1. EXISTING TREES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. CARE SHOULD BE TAKEN WHEN GRADING OCCURS WITHIN THE DRIPLINE OF THE TREE.
2. CONTRACTOR TO NOTIFY OWNER IMMEDIATELY IF ANY DISCREPANCIES OR QUESTIONS REGARDING TREE PROTECTION OCCUR AT TIME CONSTRUCTION.
3. ALL WORK WITHIN THE EXISTING TREE ROOT ZONES SHALL BE DONE USING ALL POSSIBLE CARE TO AVOID INJURY TO ROOTS.
4. NO ROOTS LARGER THAN 2" SHALL BE CUT WITHOUT APPROVAL. CONTACT LANDSCAPE ARCHITECT IF PLANT MATERIAL PLACEMENT IS IN CONFLICT WITH EXISTING ROOTS.
5. ROOT BARRIER, 10 LINEAL FEET CENTERED ON TREES, TO BE INSTALLED WHEN TREE IS WITHIN 5' OF SIDEWALKS, ROADWAYS, BUILDING OR CURBS.

811 Know what's **below.** **Call** before you dig.

PRELIMINARY TREE SHADE CALCULATIONS

(GREEN BUILDING CODE 5.106.12.2)

HARDSCAPE SHADED: **41%**
20% SHADED REQUIRED

PARKING LOT SHADED: **58%**
50% SHADED REQUIRED

LANDSCAPE SUMMARY

TOTAL IRRIGATED AREA	12,835 SF
MAXIMUM APPLIED WATER ALLOWANCE (MAWA)	XXX GALLON/YR
ESTIMATED TOTAL WATER USE (ETWU)	XXX GALLON/YR

I SHALL COMPLY WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLANS.

ROBERT J. NORBUTAS, JR., RLA 5595

CONCEPT PLANT LEGEND

MEDIUM SHADE TREES — 11 — WATER USE — MATURE SIZE
15 gallon trees.
Low water use plants. Install medium sized trees in the street frontage areas.
Drip bubbler irrigation.

Laurus nobilis / Sweet Bay	L	35'H X 20'W
Pistacia chinensis `Keith Davey` / Chinese Pistache	M	30'H X 25'W
Quercus rubra / Red Oak	L	40'H X 30'W
Robinia pseudoacacia 'Purple Robe' / Black Locust	L	30'H X 20'W
Ulmus wilsoniana 'Prospector' / Prospector Elm	M	40'H X 30'W

NARROW SCREEN TREES — 9 — WATER USE — MATURE SIZE
15 gallon trees.
Low/medium water use trees. Perimeter areas requiring narrow, upright growth and screening.
Drip bubbler irrigation.

Acer platanoides `Columnare` / Norway Maple	M	40'H X 15'W
Cedrus atlantica 'Fastigiata' / Columnar Atlas Cedar	M	40'H X 15'W
Ginkgo biloba 'Autumn Gold' / Maidenhair Tree	M	40'H X 20'W
Podocarpus gracilior / Fern Pine	M	40'H X 20'W

CONIFER TREES — 9 — WATER USE — MATURE SIZE
24" box trees.
Low/medium water use trees. Evergreen conifer trees planted at back of building for shade and screening.
Drip bubbler irrigation.

Calocedrus decurrens / Incense Cedar	M	40'H X 15'W
Cedrus atlantica / Atlas Cedar	M	40'H X 30'W
Pinus canariensis / Canary Island Pine	L	50'H X 20'W
Pinus nigra / Austrian Pine	M	40'H X 30'W

ACCENT - SMALL TREES — 18 — WATER USE — MATURE SIZE
15 gallon trees.
Small space planting areas, entry and building accent. Spacing per plan.
Drip bubbler irrigation.

Acer palmatum / Japanese Maple	M	10'H X 10'W
Cercis occidentalis / Western Redbud	VL	20'H X 15'W
Lagerstroemia x `Tuscarora` / Crape Myrtle Coral Pink	L	20'H X 15'W
Magnolia grandiflora 'Little Gem' / Dwarf Southern Magnolia	M	15'H X 10'W
Prunus cerasifera `Atropurpurea` / Purple-leaf Plum	L	20'H X 15'W

MULTI-TRUNK ACCENT TREES — 5 — WATER USE — MATURE SIZE
48" box trees.
Accent planting locations within site. Spacing per plan.
Drip bubbler irrigation.

Arbutus unedo / Strawberry Tree Multi-Trunk	L	15'H X 15' W
Lagerstroemia indica 'Pink' / Crape Myrtle Multi-Trunk	L	12'H X 12'W
Olea europaea 'Swan Hill' / Swan Hill Olive	VL	25'H X 20'W

EXISTING TREES TO REMAIN

SITE SHRUBS AND GROUNDCOVERS — 6,344 sf — WATER USE — MATURE SIZE
5 gallon and 1 gallon shrubs.
Install interior shrubs (6'-4' high) in interior planter areas.
Medium and small sized shrubs, groundcovers and grasses.
Drip Irrigation.

Ceanothus griseus horizontalis 'Yankee Point' / Carmel Creeper	L	2'H X 7'W
Cistus pulverulentus / Rockrose	L	2'H X 3'W
Coleonema pulchrum 'Sunset Gold' / Golden Breath Of Heaven	M	2'H X 4'W
Dietes vegeta / African Iris	L	3'H X 3'W
Erigeron karvinskianus 'Profusion' / Profusion Santa Barbara Daisy	L	1'H X 3'W
Leymus condensatus 'Canyon Prince' / Giant Wild Rye	L	2'H X 3'W
Lomandra longifolia 'Platinum Beauty' / Dwarf Mat Rush	L	2'H X 3'W
Loropetalum chinense rubrum 'Ruby' / Fringe Flower	M	3'H X 4'W
Mahonia aquifolium 'Compacta' / Oregon Grape	M	2.5'H X 3'W
Muhlenbergia capillaris 'Lencal' / Regal Mist Pink Muhly Grass	L	4'H X 4'W
Myoporum parvifolium / Trailing Myoporum	L	.5'H X 1'H
Nandina domestica / Heavenly Bamboo	L	4'H X 4'W
Osteospermum fruticosum 'African Queen' / Trailing Daisy	L	1'H X 1'W
Salvia greggii / Autumn Sage	L	2'H X 2'W
Trachelospermum jasminoides / Chinese Star Jasmine	M	2'H X 3'W

ENTRY ACCENT AND GARDEN PATIO SHRUBS — 1,867 sf — WATER USE — MATURE SIZE
5 gallon and 1 gallon shrubs.
Install accent (6'-4' high) in entry perimeter planter areas.
Medium and small sized shrubs, groundcovers and grasses
Drip Irrigation.

Achillea x 'Moonshine' / Moonshine Yarrow	L	
Arctostaphylos x 'Emerald Carpet' / Manzanita	M	1'H X 5'W
Bouteloua gracilis / Blue Grama Grass	L	
Coleonema pulchrum 'Sunset Gold' / Golden Breath Of Heaven	M	2'H X 4'W
Festuca amethystina 'Superba' / Rainbow Fescue	L	1'H X 2'W
Festuca glauca 'Elijah Blue' / Elijah Blue Fescue	L	1.5'H X 1'W
Gazania rigens leucolaena / Trailing Gazania	M	1'H X 1'W
Hemerocallis x 'Stella de Oro' / Stella de Oro Daylily	M	1'H X 1.5'W
Hesperaloe parviflora 'Perpa' / Brakelights Red Yucca	L	2.5'H X 4'W
Lantana camara 'Confetti' / Confetti Lantana	L	
Limonium perezii / Statice	M	
Lomandra longifolia 'Platinum Beauty' / Dwarf Mat Rush	L	
Penstemon heterophyllus 'Margarita BOP' / Penstemon	L	1'H X 2'W
Phormium tenax 'Amazing Red' / Dwarf Red Flax	L	1.5'H W 2'W
Salvia spathacea / Hummingbird Sage	L	2'H X 4'W

STREETSCAPE SHRUBS AND GROUNDCOVERS — 636 sf — WATER USE — MATURE SIZE
1 and 5 gallon shrubs.
Drought tolerant, low water-use plants.
Install streetscape shrubs(18"-4' high) in streetscape planter areas and at back of walk.
Drip irrigation.

Arctostaphylos x 'Emerald Carpet' / Manzanita	M	1'H X 5'W
Baccharis pilularis 'Pigeon Point' / Coyote Brush	L	2'H X 7'W
Berberis aquifolium 'Compacta' / Oregon Grape Holly	L	2'H X 3'W
Ceanothus griseus horizontalis 'Yankee Point' / Carmel Creeper	L	2'H X 7'W
Coleonema pulchrum 'Sunset Gold' / Sunset Gold Breath of Heaven	M	2'H X 4'W
Erigeron karvinskianus 'Profusion' / Santa Barbara Daisy	L	1'H X 3'W
Juniperus horizontalis 'Blue Chip' / Blue Chip Juniper	L	1'H X 6'W
Rhaphiolepis indica 'Ballerina' / Ballerina Indian Hawthorn	M	3'H X 4'W
Salvia leucantha / Mexican Bush Sage	L	3'H X 3'W

PARKING LOT SHRUBS — 2,214 sf — WATER USE — MATURE SIZE
5 gallon and 1 gallon shrubs.
Install parking lot shrubs (6"-4' high) in parking planter areas.
Medium and small sized shrubs, groundcovers and grasses.
Drip Irrigation.

Artemisia x 'Powis Castle' / Powis Castle Artemisia	M	3'H X 3'W
Callistemon viminalis 'Little John' / Weeping Bottlebrush	L	3'H X 4'W
Erigeron karvinskianus 'Profusion' / Profusion Santa Barbara Daisy	L	1.5'H X 3'W
Hemerocallis x 'Stella de Oro' / Stella de Oro Daylily	M	1'H X 1.5'W
Lantana x 'New Gold' / New Gold Lantana	L	2'H X 4'W
Lomandra longifolia 'Platinum Beauty' / Dwarf Mat Rush	L	2'H X 3'W
Mahonia aquifolium 'Compacta' / Oregon Grape	M	2.5'H X 3'W
Pennisetum setaceum 'Eaton Canyon' / Fountain Grass	L	3'H X 3'W
Salvia greggii / Autumn Sage	L	2'H X 2'W
Westringia fruticosa / Coast Rosemary	L	3'H X 4'W

SCREENING SHRUBS — 1,295 sf — WATER USE — MATURE SIZE
5 and 15 gallon shrubs.
Drought tolerant, low water-use plants.
Install foundation shrubs (4'-8' high) at fenceline.
Drip irrigation.

Dodonaea viscosa 'Purpurea' / Purple Hopseed Bush	L	10'H X 6'W
Heteromeles arbutifolia / Toyon	VL	6'H X 6'W
Xylosma congestum / Shiny Xylosma	L	6'H X 6'W

BARK MULCH — 530 sf
Natural chip bark mulch. 3" thick layer minimum. Landscape planting areas within the project site to receive chip bark mulch.

0' 10' 20' 40'
SCALE: 1"=20'

Dreyfuss+Blackford architecture

SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

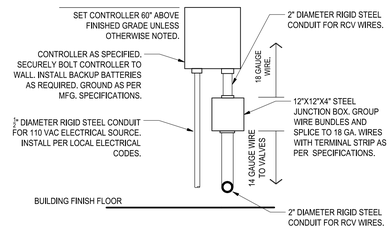
PLANTING PLAN

C1014.00

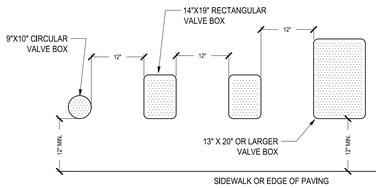
:2 MAY 2022

L2.0

2/8/2022 3:10:00 PM I:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-L2.0 PLANTING PLAN.dwg

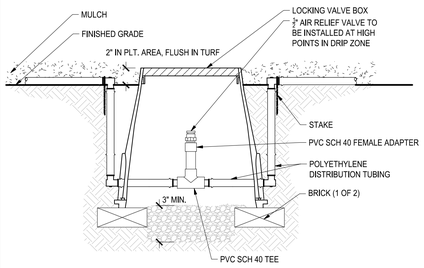


1 WALL-MOUNTED CONTROLLER
NO SCALE

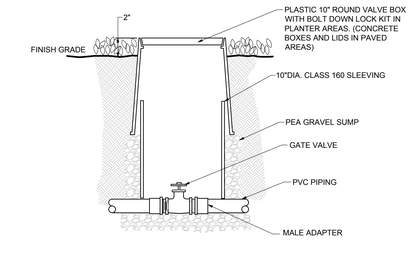


NOTES:
1. CENTER BOX OVER VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 2" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN AREA ONLY IF GROUND COVER/SHRUB AREA DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOX EDGES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. VALVE BOXES SHALL HAVE BOLT DOWN LIDS WITH BOLTS INSTALLED.

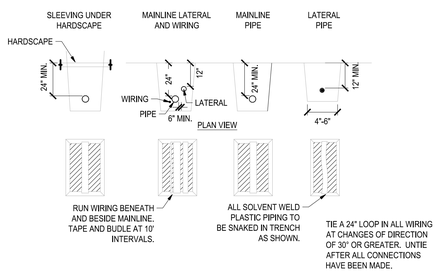
6 VALVE BOX
NO SCALE



11 AIR RELIEF VALVE
NO SCALE

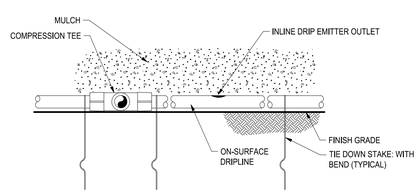


2 GATE VALVE
NO SCALE



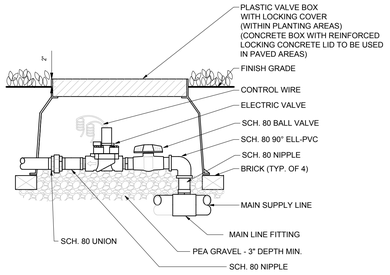
NOTES:
1. SLEEVE 24" BELOW ALL HARDSCAPE ELEMENTS WITH SCH. 40 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS SEE SPECIFICATIONS.
3. SNAKE ALL PLASTIC PIPING IN TRENCHES FROM SIDE TO SIDE AS SHOWN, AT A 50' INTERVAL.

7 PIPE AND WIRE TRENCHING
NO SCALE

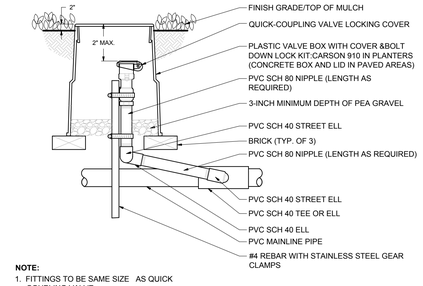


NOTE:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

12 ON-SURFACE DRIPLINE STAKING
NO SCALE

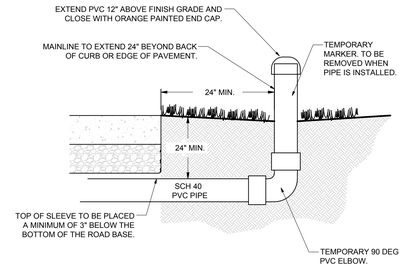


3 REMOTE CONTROL VALVE
NO SCALE

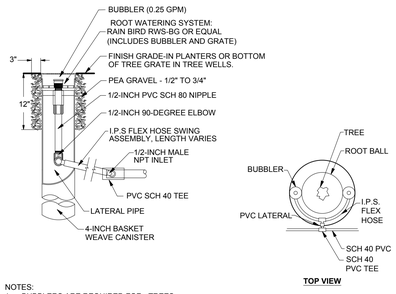


NOTE:
1. FITTINGS TO BE SAME SIZE AS QUICK COUPLING VALVE.

4 QUICK COUPLER
NO SCALE

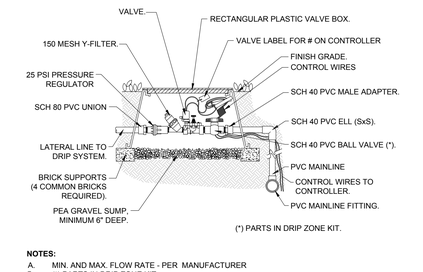


5 PIPE SLEEVE WITH 90 ELBOW
NO SCALE



NOTES:
1. BUBBLERS ARE REQUIRED FOR TREES. TWO BUBBLERS PER TREE ARE TO BE PLACE ON OPPOSITE SIDES OF ROOTBALL.
2. USE PROPER RATED GLUE FOR I.P.S. FLEX HOSE.

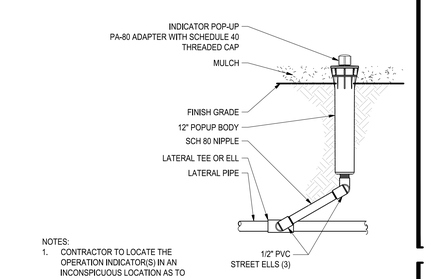
8 DEEP ROOT WATERING SYSTEM
NO SCALE



(*) PARTS IN DRIP ZONE KIT.

NOTES:
A. MIN. AND MAX. FLOW RATE - PER MANUFACTURER
B. (*) PARTS IN DRIP ZONE KIT.

9 REMOTE CONTROL VALVE-DRIP
NO SCALE



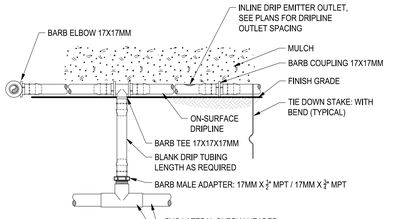
NOTES:
1. CONTRACTOR TO LOCATE THE OPERATION INDICATOR(S) IN AN INCONSPICUOUS LOCATION AS TO AVOID BEING VANDALIZED.
2. ONE PER DRIP VALVE STATION.
3. LOCATED WITHIN 8 FEET OF VALVE BOX.

10 DRIP SYSTEM OPERATION INDICATOR
NO SCALE

11 AIR RELIEF VALVE
NO SCALE

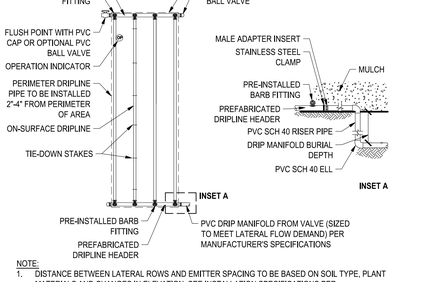
NOTE:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM AND FIVE FEET IN CLAY;
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

12 ON-SURFACE DRIPLINE STAKING
NO SCALE



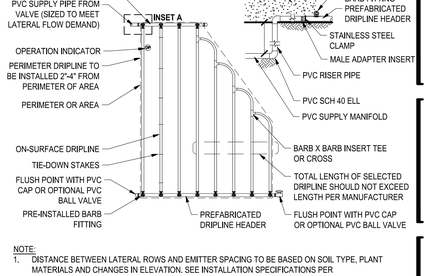
NOTE:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

13 ON-SURFACE DRIPLINE - DRIPLINE RISER ASSEMBLY
NO SCALE



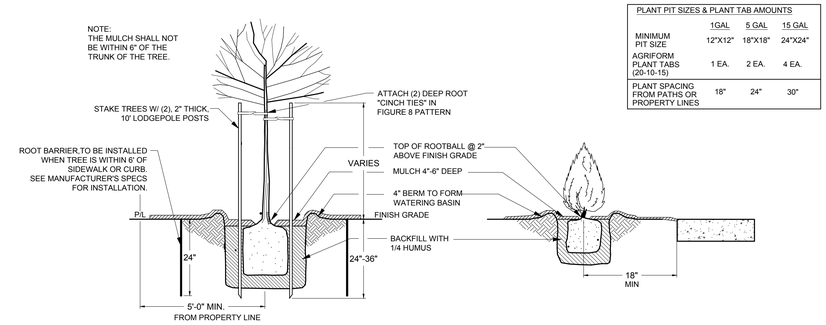
NOTE:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS PER MANUFACTURER.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING PER MANUFACTURER'S SPECIFICATIONS.

14 ON-SURFACE DRIPLINE - END FEED LAYOUT
NO SCALE



NOTE:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS PER MANUFACTURER.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING PER MANUFACTURER'S SPECIFICATIONS.

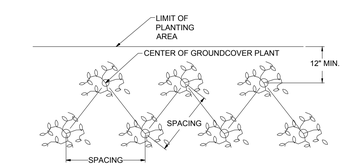
15 ON-SURFACE DRIPLINE - IRREGULAR SHAPED LAYOUT
NO SCALE



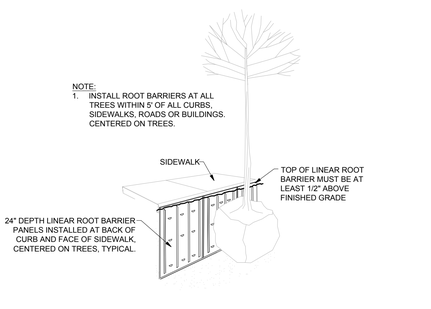
PLANT PIT SIZES & PLANT TAB AMOUNTS			
	1GAL	5 GAL	15 GAL
MINIMUM PIT SIZE	12"X12"	18"X18"	24"X24"
AGRIFORM PLANT TABS (20-10-15)	1 EA.	2 EA.	4 EA.
PLANT SPACING FROM PATHS OR PROPERTY LINES	18"	24"	30"

16 TREE/SHRUB PLANTING & STAKING
NO SCALE

NOTE:
AFTER ALL TREES, SHRUBS AND GROUNDCOVER HAVE BEEN PLANTED, A PRE-EMERGENT SPRAY SHALL BE APPLIED TO ALL PLANTING AREAS PER MANAFACTURER'S SPECIFICATIONS.
IN ALL AREAS TREATED WITH PRE-EMERGENT HERBICIDE PRIOR TO PLANTING DUST THE PLANT PITS WITH ACTIVATED CARBON AT A RATE OF 50 LBS. PER 1000 SF BEFORE PLANTING ANY GROUNDCOVER.



17 GROUNDCOVER SPACING
NO SCALE



18 LINEAR ROOT BARRIER
NO SCALE

Dreyfuss+Blackford architecture

SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN

900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

LANDSCAPE DETAILS

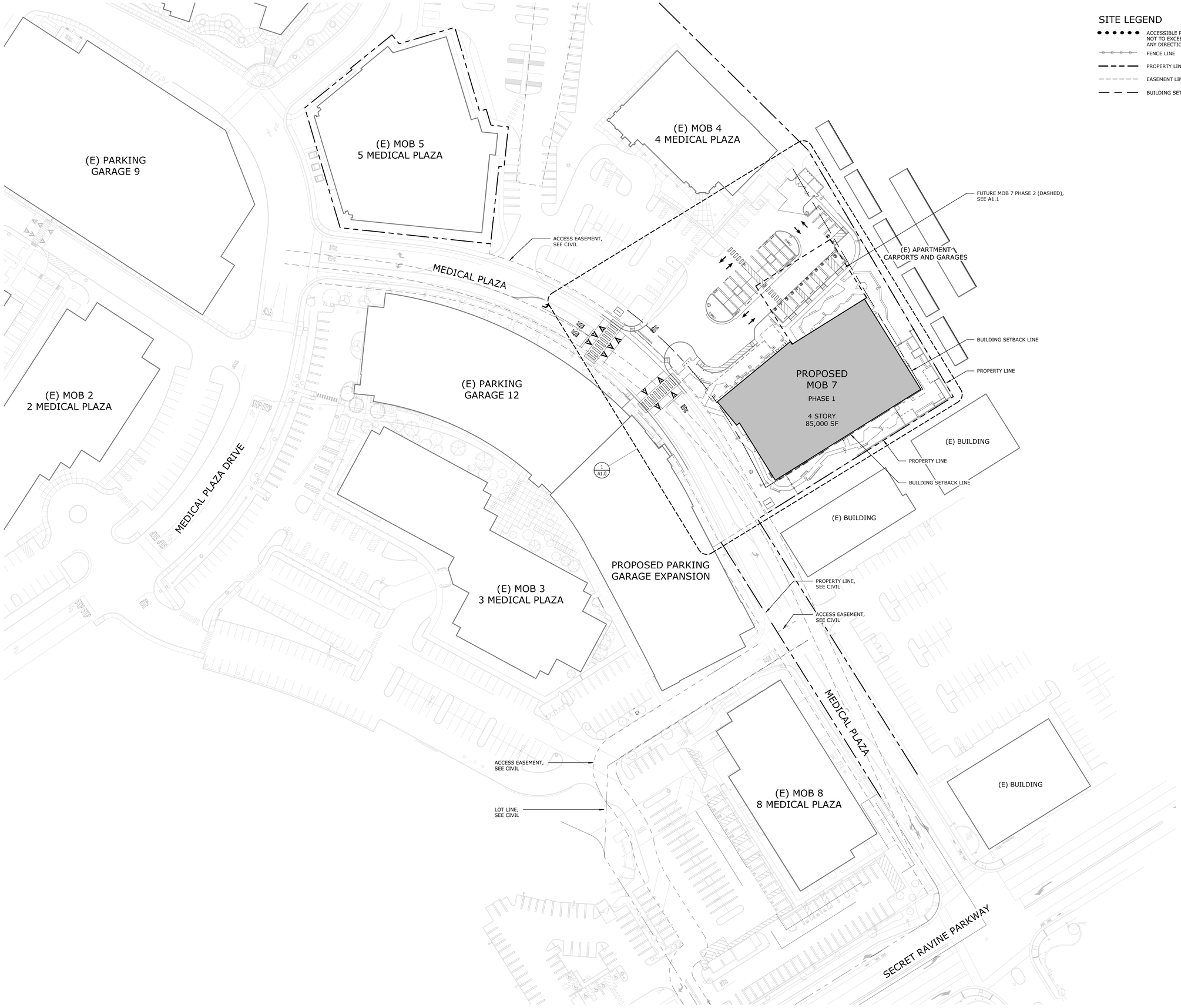
C1014.00

:2 MAY 2022

L3.0

f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-L3.0 LANDSCAPE DETAILS.dwg

2/8/2022 3:10:00 PM



1 SITE OVERALL - ENTITLEMENTS_ROTATED
1" = 40'-0"

SITE LEGEND

- ACCESSIBLE PATH OF TRAVEL NOT TO EXCEED 2% CROSS SLOPE IN ANY DIRECTION.
- FENCE LINE
- PROPERTY LINE
- EASEMENT LINE
- BUILDING SETBACK LINE

Dreyfuss + Blackford
architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE
BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

SITE PLAN OVERALL

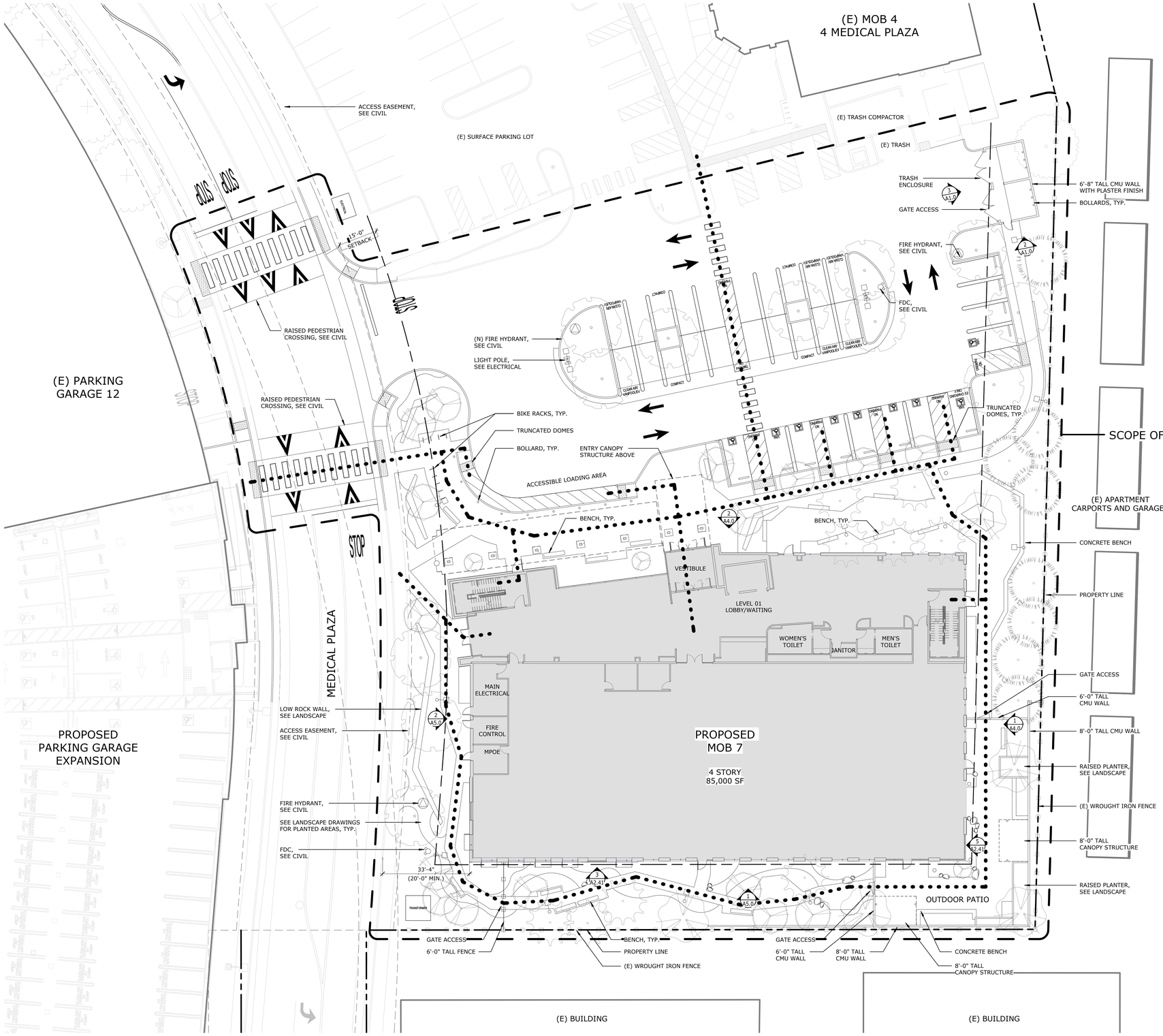
TRUE NORTH

C1014.00
AS SHOWN
2 MAY 2022

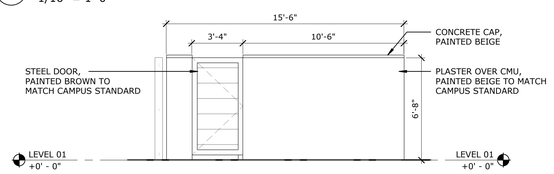
A0.0

C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_phanding\RVM9.rvt

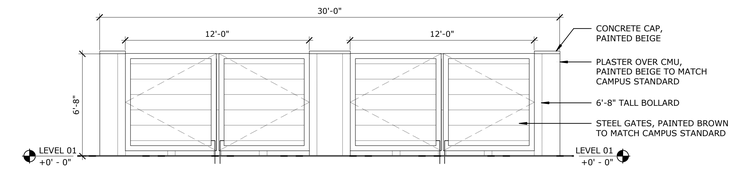
5/2/2022 12:12:22 PM



1 SITE PLAN - ENTITLEMENTS
1/16" = 1'-0"



2 TRASH ENCLOSURE - NORTH - ENTITLEMENTS
1/4" = 1'-0"



3 TRASH ENCLOSURE - EAST - ENTITLEMENTS
1/4" = 1'-0"

SITE PLAN NOTES

1. THE ACCESSIBLE ROUTE OF TRAVEL (OR PATH OF TRAVEL) IS A CONTINUOUS UNOBSTRUCTED WALKWAY (OR PATH) CONNECTING ALL ACCESSIBLE ELEMENTS AND SPACES AS INDICATED ON THIS SHEET. THE CONTRACTOR SHALL VERIFY THAT A PERSON CAN NEGOTIATE THE ACCESSIBLE ROUTE WITH A DISABILITY USING A WHEELCHAIR AND THAT THE ROUTE IS ALSO SAFE AND USABLE BY PERSONS WITH OTHER DISABILITIES.
2. ALL WALKS, SIDEWALKS AND LANDINGS THAT ARE PART OF THE ACCESSIBLE ROUTE OF TRAVEL SHALL HAVE A CONTINUOUS COMMON SURFACE, NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2 INCH, AND SHALL HAVE A MINIMUM WIDTH OF 48 INCHES, UNLESS NOTED OTHERWISE. THE SLOPE IN THE DIRECTION OF TRAVEL SHALL BE LESS THAN 1:20 (5%) WITH A MAXIMUM CROSS SLOPE OF 1/4 INCH PER FOOT (2%), UNLESS OTHERWISE NOTED.
3. ALL DESIGNATED ACCESSIBLE RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12 (8.33%) IN THE DIRECTION OF TRAVEL WITH A MAXIMUM CROSS SLOPE OF 1/4 INCH PER FOOT (2%), UNLESS OTHERWISE NOTED.
4. SEE CIVIL DRAWINGS FOR FULL EXTENT OF SITE WORK IN THIS CONTRACT.
5. SEE ELECTRICAL DRAWINGS FOR SITE AND BUILDING LIGHTING.

SITE LEGEND

- ACCESSIBLE PATH OF TRAVEL NOT TO EXCEED 2% CROSS SLOPE IN ANY DIRECTION.
- FENCE LINE
- PROPERTY LINE
- EASEMENT LINE
- BUILDING SETBACK LINE

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

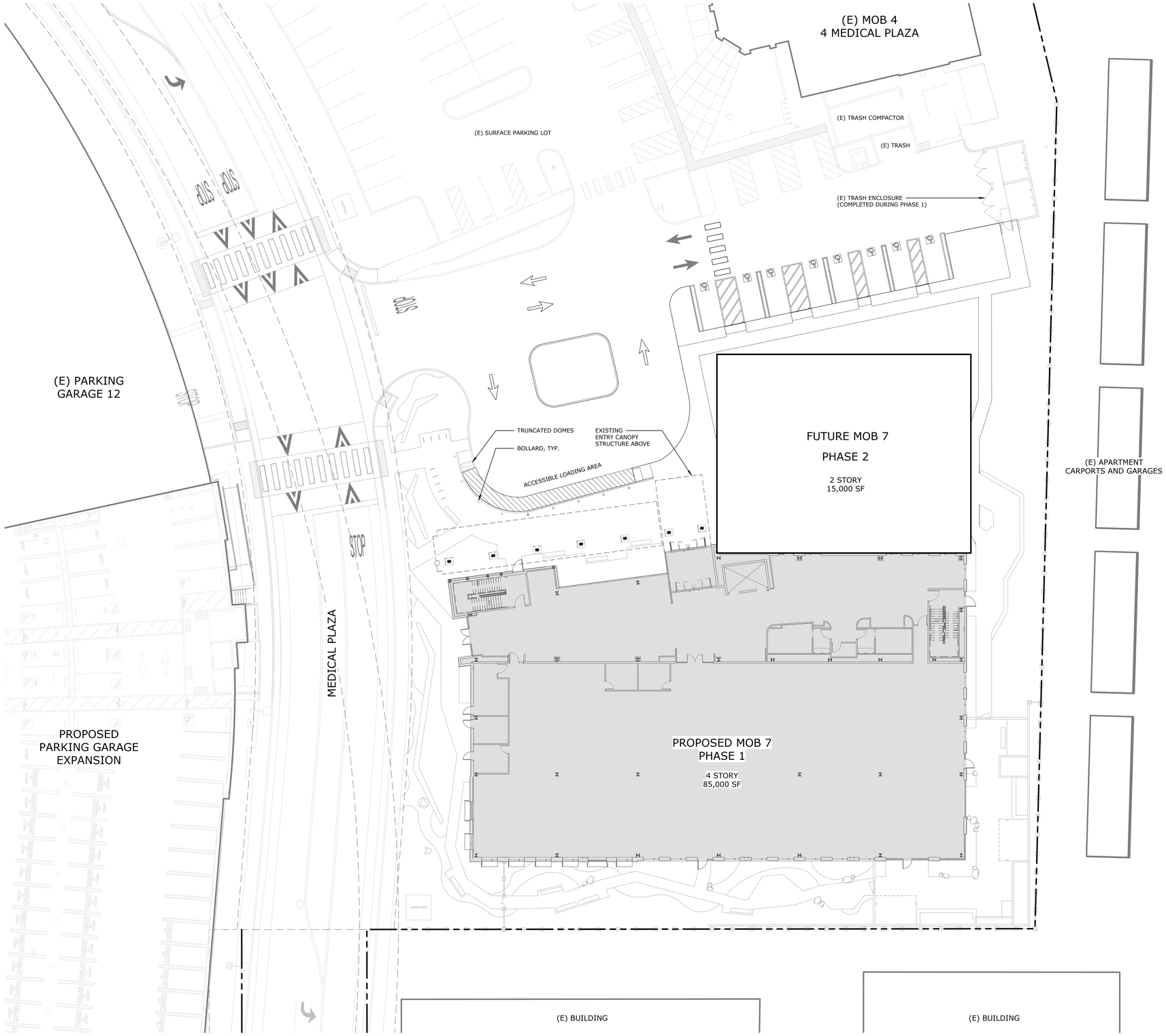
SITE PLAN - ENLARGED

PROJECT NORTH

C1014.00
AS SHOWN
2 MAY 2022

A1.0

5/2/2022 12:12:25 PM C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_phardingRY4N9.rvt



1 SITE PLAN - ENTITLEMENTS PHASE 2
1/16" = 1'-0"

SITE LEGEND

- ACCESSIBLE PATH OF TRAVEL NOT TO EXCEED 2% CROSS SLOPE IN ANY DIRECTION.
- FENCE LINE
- PROPERTY LINE
- EASEMENT LINE
- BUILDING SETBACK LINE

Dreyfuss+Blackford
architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE
BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

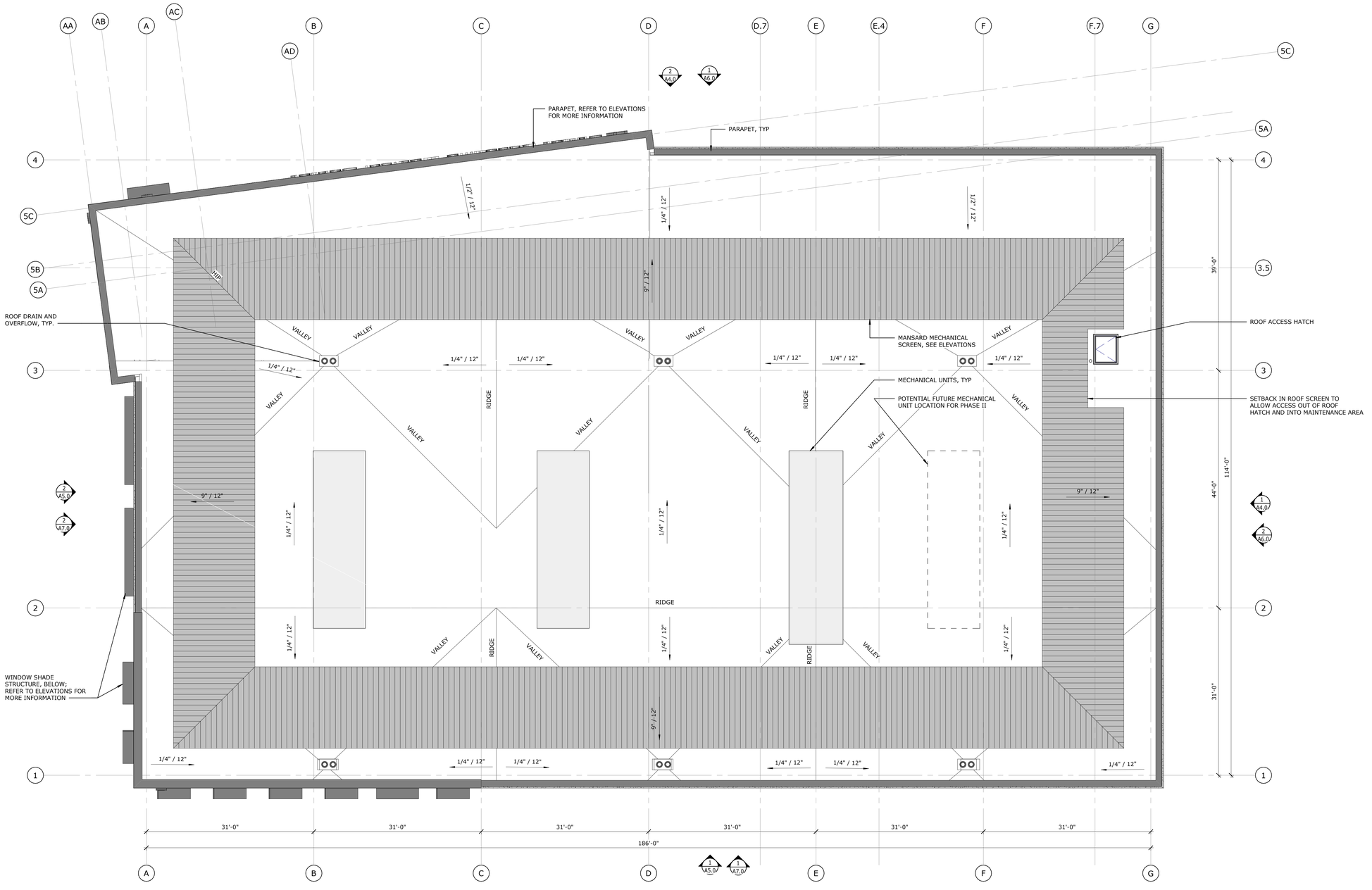
SITE PLAN - PHASE 2

PROJECT NORTH

C1014.00
AS SHOWN
2 MAY 2022

A1.1

5/2/2022 12:12:28 PM C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_phardingRVT4N9.rvt



1 ROOF PLAN - ENTITLEMENTS
1/8" = 1'-0"

C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_ghardingRY4N9.rvt
5/2/2022 12:12:28 PM

Dreyfuss + Blackford
architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

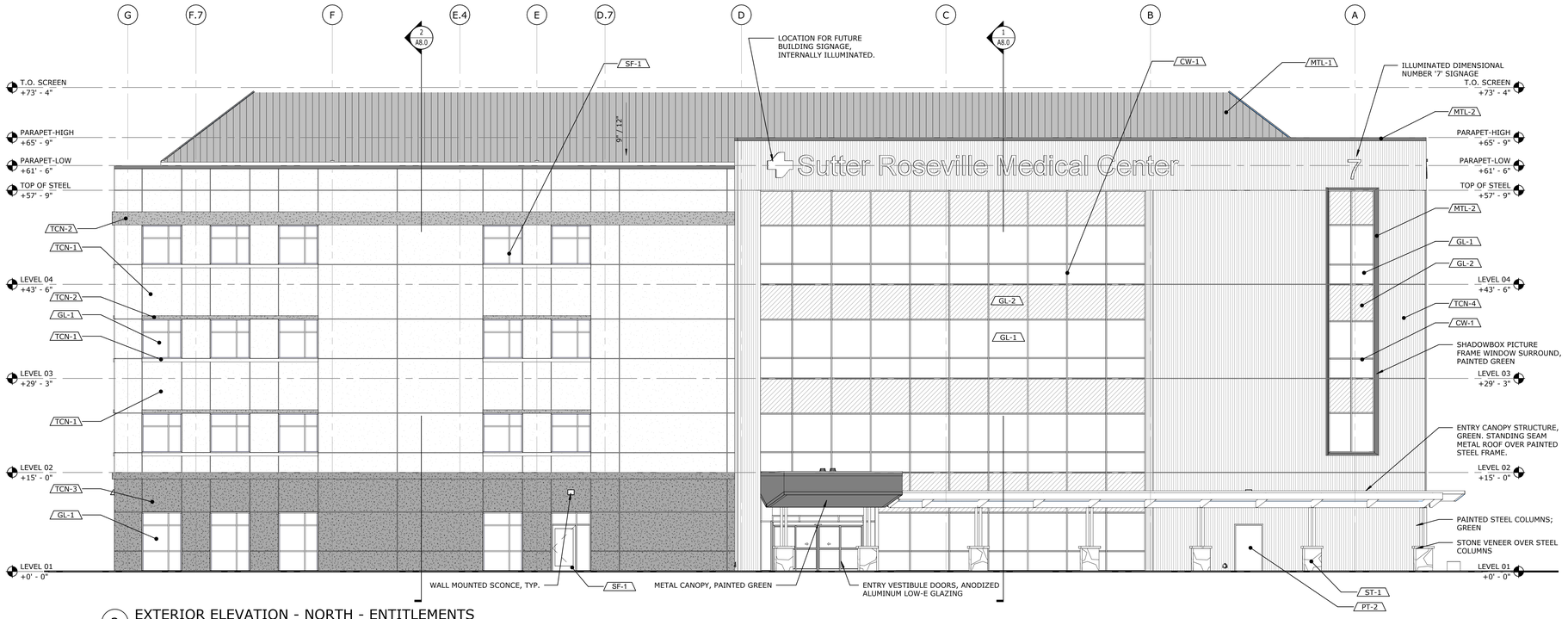
7 MEDICAL PLAZA
ROSEVILLE, CA 95661

ROOF PLAN

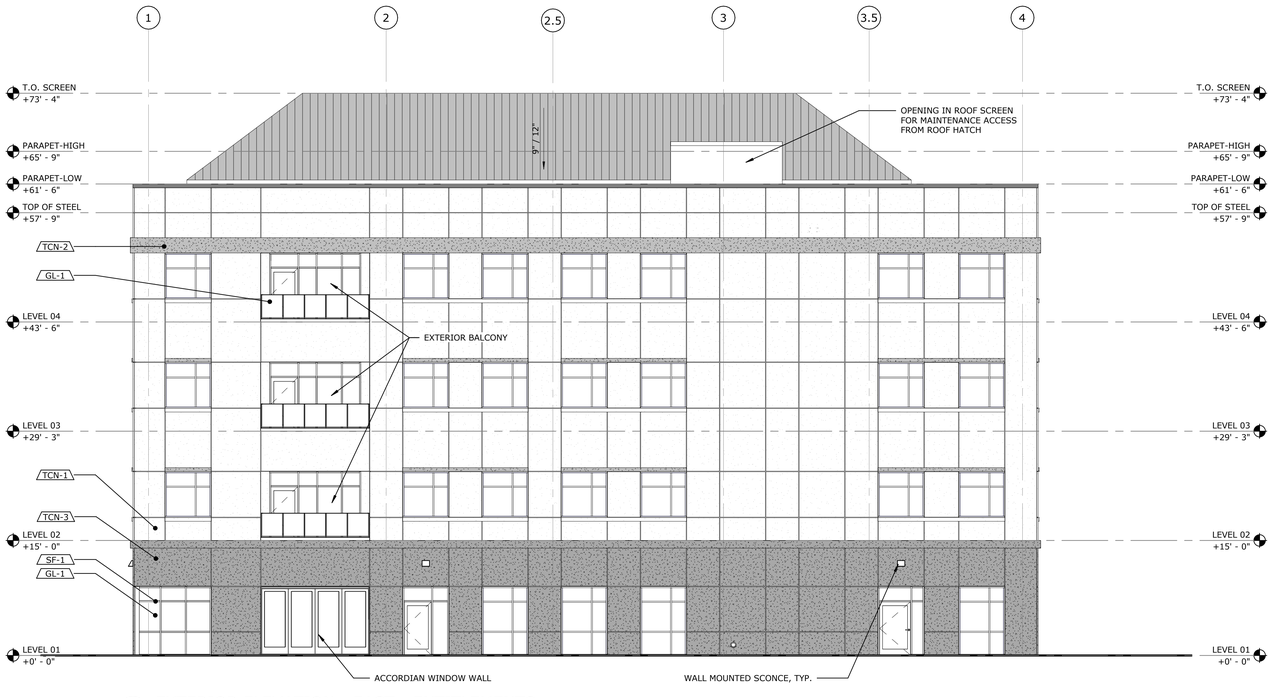
PROJECT NORTH

C1014.00
AS SHOWN
2 MAY 2022

A2.0



2 EXTERIOR ELEVATION - NORTH - ENTITLEMENTS
1/8" = 1'-0"



1 EXTERIOR ELEVATION - EAST - ENTITLEMENTS
1/8" = 1'-0"

EXTERIOR FINISH LEGEND

TCN-1	THINSHELL CONCRETE - BEIGE
TCN-2	THINSHELL CONCRETE - GREEN
TCN-3	THINSHELL CONCRETE - BROWN
TCN-4	THINSHELL CONCRETE - BEIGE WITH VERTICAL TEXTURE
MTL-1	FACTORY PAINTED STANDING SEAM METAL - GREEN
MTL-2	FACTORY PAINTED METAL - GREEN
CW-1	CLEAR ANODIZED ALUMINUM CURTAINWALL
SF-1	CLEAR ANODIZED ALUMINUM STOREFRONT
GL-1	LOW-E VISION GLAZING
GL-2	SPANDREL GLAZING
PT-1	PAINTED BROWN TO MATCH CAMPUS STANDARD
PT-2	PAINTED BEIGE TO MATCH CAMPUS STANDARD

Dreyfuss+Blackford
architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE
BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

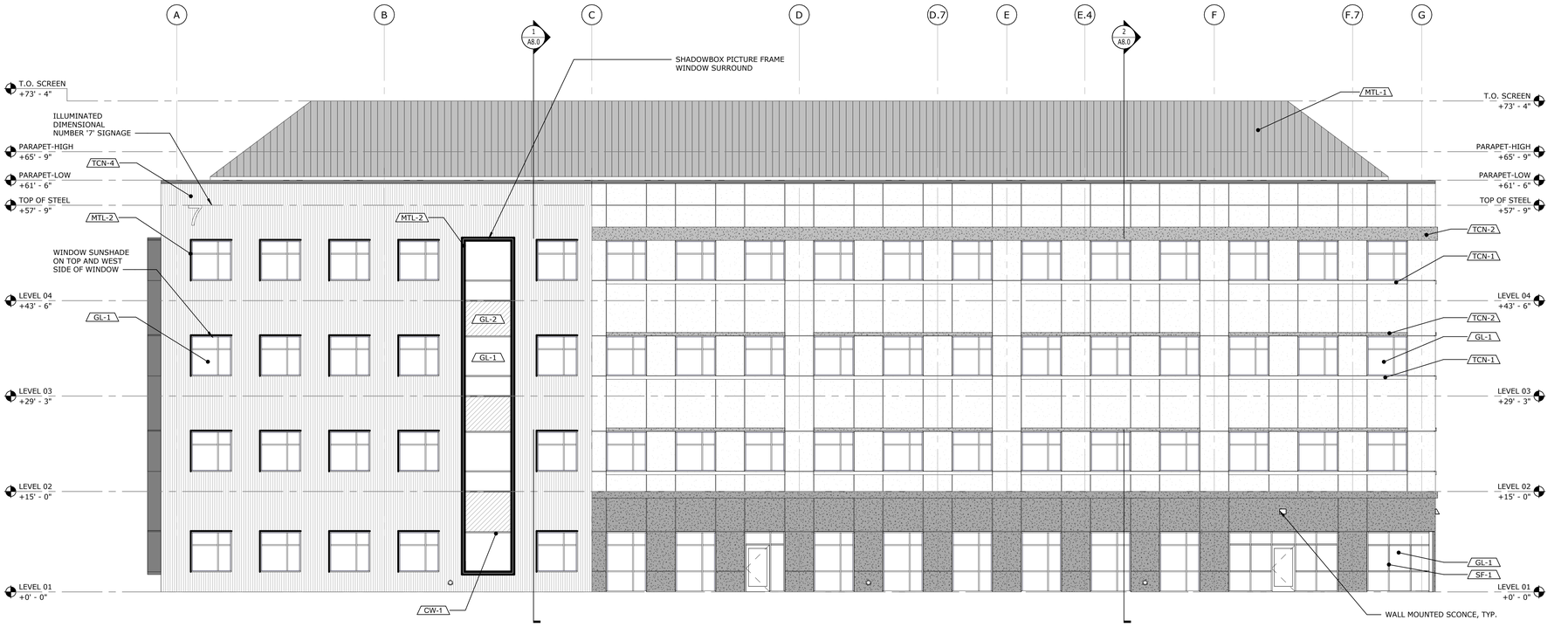
BUILDING ELEVATIONS

PROJECT NORTH

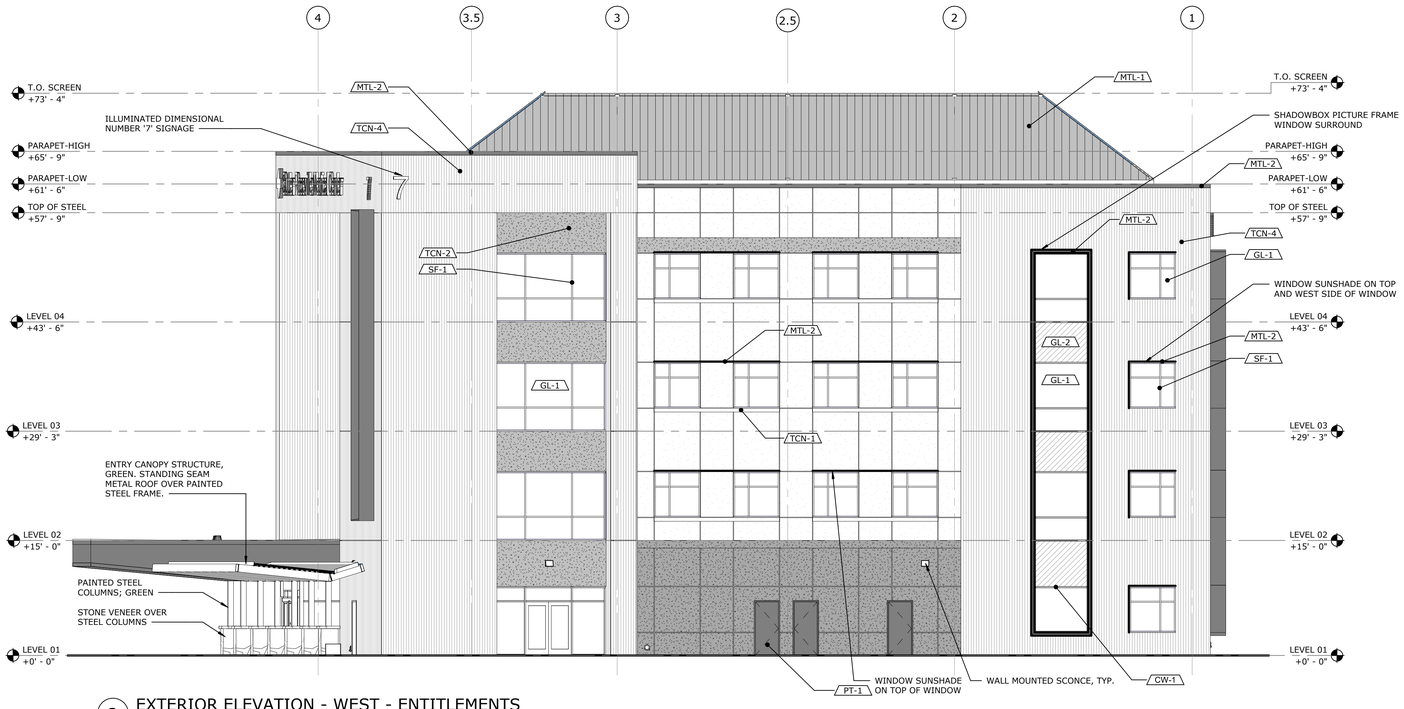
C1014.00
AS SHOWN
2 MAY 2022

A4.0

5/2/2022 12:12:30 PM C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_phardingRY4N9.rvt



1 EXTERIOR ELEVATION - SOUTH - ENTITLEMENTS
1/8" = 1'-0"



2 EXTERIOR ELEVATION - WEST - ENTITLEMENTS
1/8" = 1'-0"

EXTERIOR FINISH LEGEND

TCN-1	THINSHELL CONCRETE - BEIGE
TCN-2	THINSHELL CONCRETE - GREEN
TCN-3	THINSHELL CONCRETE - BROWN
TCN-4	THINSHELL CONCRETE - BEIGE WITH VERTICAL TEXTURE
MTL-1	FACTORY PAINTED STANDING SEAM METAL - GREEN
MTL-2	FACTORY PAINTED METAL - GREEN
CW-1	CLEAR ANODIZED ALUMINUM CURTAINWALL
SF-1	CLEAR ANODIZED ALUMINUM STOREFRONT
GL-1	LOW-E VISION GLAZING
GL-2	SPANDREL GLAZING
PT-1	PAINTED BROWN TO MATCH CAMPUS STANDARD
PT-2	PAINTED BEIGE TO MATCH CAMPUS STANDARD

Dreyfuss+Blackford
architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

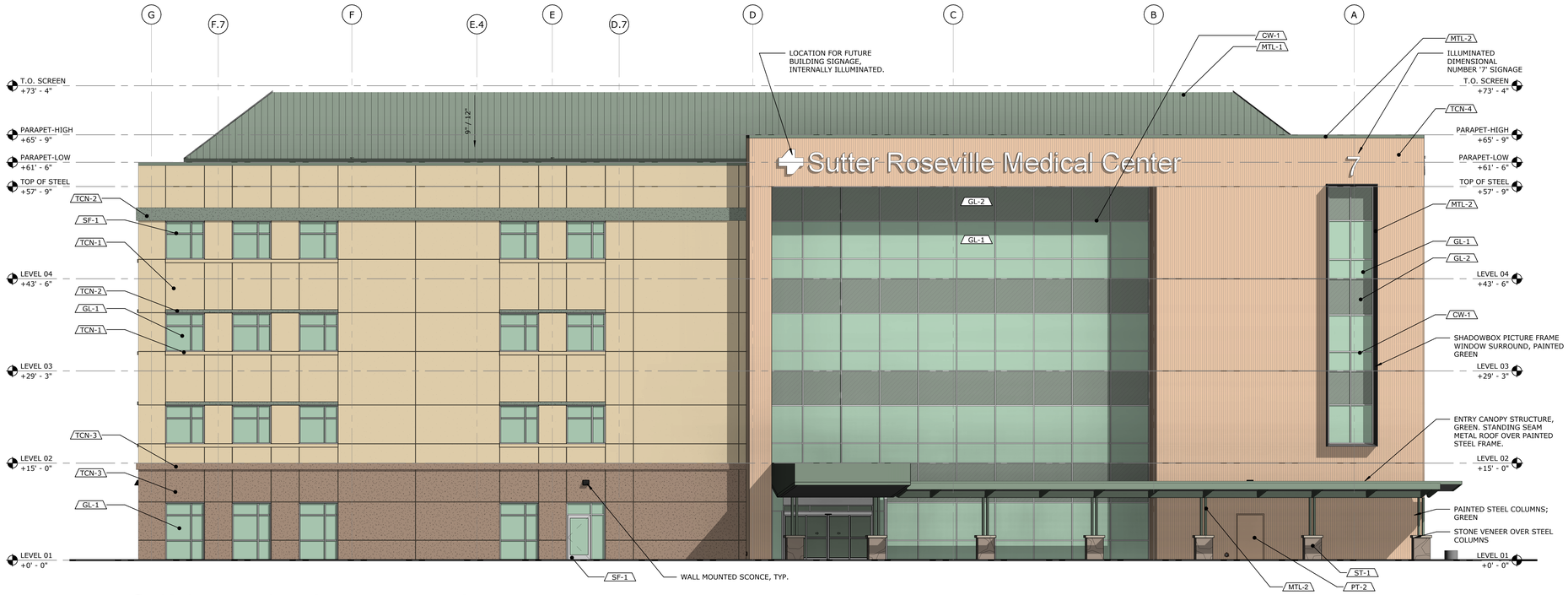
BUILDING ELEVATIONS

PROJECT NORTH

C1014.00
AS SHOWN
2 MAY 2022

A5.0

C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_phardingRY4N9.rvt
5/2/2022 12:12:31 PM



1 COLOR ELEVATION - NORTH - ENTITLEMENTS
1/8" = 1'-0"



2 COLOR ELEVATION - EAST - ENTITLEMENTS
1/8" = 1'-0"

EXTERIOR FINISH LEGEND

TCN-1	THINSHELL CONCRETE - BEIGE
TCN-2	THINSHELL CONCRETE - GREEN
TCN-3	THINSHELL CONCRETE - BROWN
TCN-4	THINSHELL CONCRETE - BEIGE WITH VERTICAL TEXTURE
MTL-1	FACTORY PAINTED STANDING SEAM METAL - GREEN
MTL-2	FACTORY PAINTED METAL - GREEN
ST-1	FIELDSTONE - RIVER ROCK
CW-1	CLEAR ANODIZED ALUMINUM CURTAINWALL
SF-1	CLEAR ANODIZED ALUMINUM STOREFRONT
GL-1	VISION GLAZING
GL-2	SPANDREL GLAZING
PT-1E	PAINTED HOLLOW METAL DOOR - BROWN
PT-2E	PAINTED HOLLOW METAL DOOR - BEIGE

Dreyfuss+Blackford architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

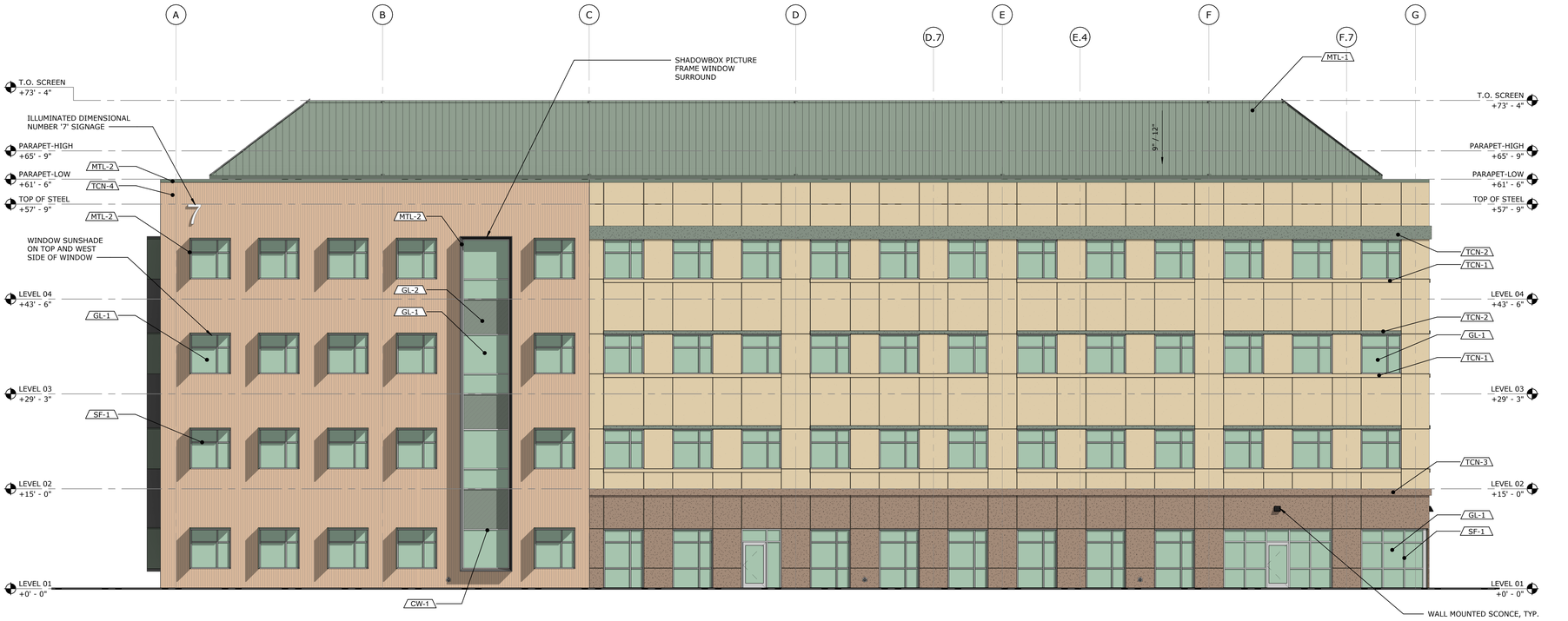
COLOR ELEVATIONS

PROJECT NORTH

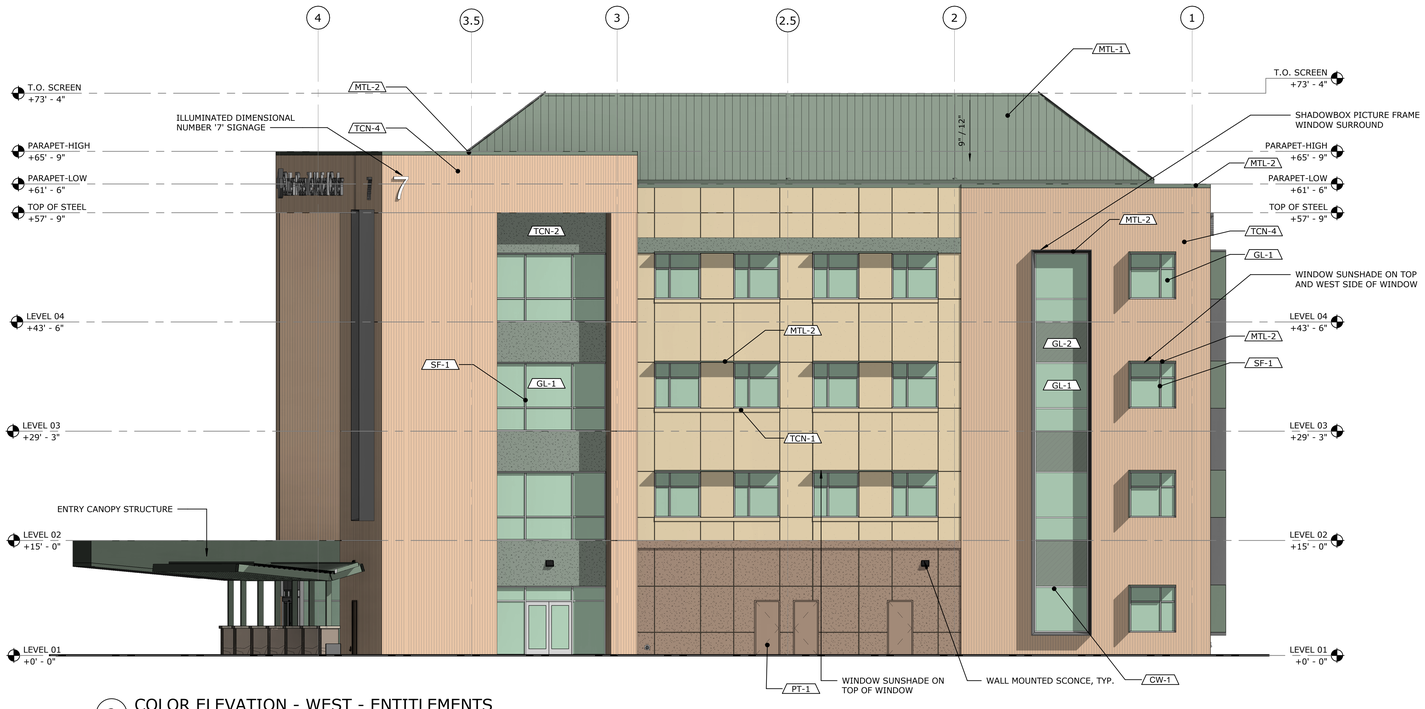
C1014.00
AS SHOWN
2 MAY 2022

A6.0

C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_phardingRVAN9.rvt
5/2/2022 12:12:44 PM



1 COLOR ELEVATION - SOUTH - ENTITLEMENTS
1/8" = 1'-0"



2 COLOR ELEVATION - WEST - ENTITLEMENTS
1/8" = 1'-0"

EXTERIOR FINISH LEGEND

TCN-1	THINSHELL CONCRETE - BEIGE
TCN-2	THINSHELL CONCRETE - GREEN
TCN-3	THINSHELL CONCRETE - BROWN
TCN-4	THINSHELL CONCRETE - BEIGE WITH VERTICAL TEXTURE
MTL-1	FACTORY PAINTED STANDING SEAM METAL - GREEN
MTL-2	FACTORY PAINTED METAL - GREEN
ST-1	FIELDSTONE - RIVER ROCK
CW-1	CLEAR ANODIZED ALUMINUM CURTAINWALL
SF-1	CLEAR ANODIZED ALUMINUM STOREFRONT
GL-1	VISION GLAZING
GL-2	SPANDREL GLAZING
PT-1E	PAINTED HOLLOW METAL DOOR - BROWN
PT-2E	PAINTED HOLLOW METAL DOOR - BEIGE

CITY APPROVAL STAMP

City of Roseville Approval

Dreyfuss+Blackford
architecture

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE
BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

COLOR ELEVATIONS

PROJECT NORTH

C1014.00
AS SHOWN
2 MAY 2022

A7.0

C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_phardingRY4N9.rvt
5/2/2022 12:12:56 PM



1 BUILDING SECTION 01 - ENTITLEMENTS
1/8" = 1'-0"



2 BUILDING SECTION 02 - ENTITLEMENTS
1/8" = 1'-0"

Dreyfuss+Blackford
architecture

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE
BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

BUILDING SECTIONS

C1014.00
AS SHOWN
2 MAY 2022

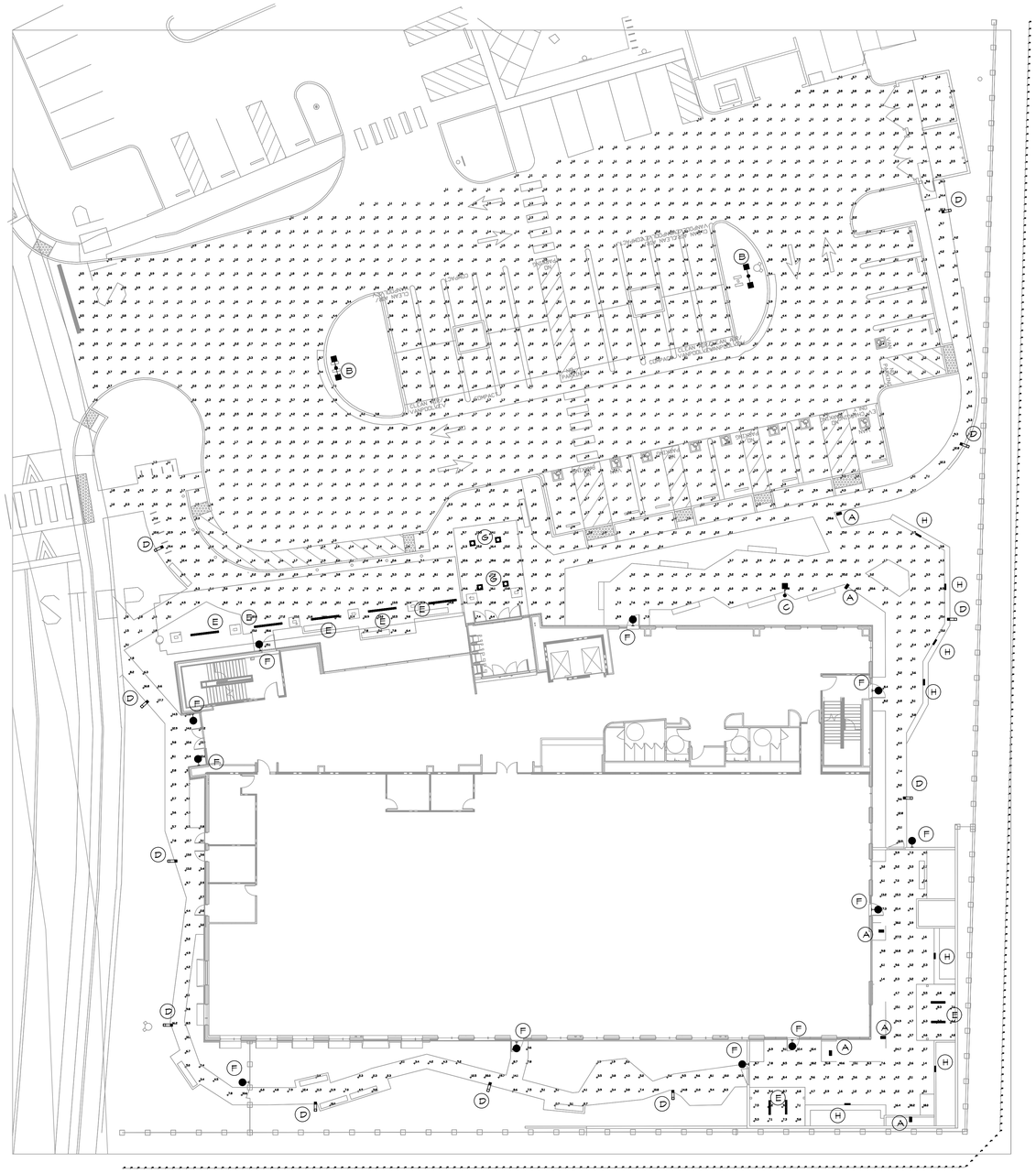
A8.0

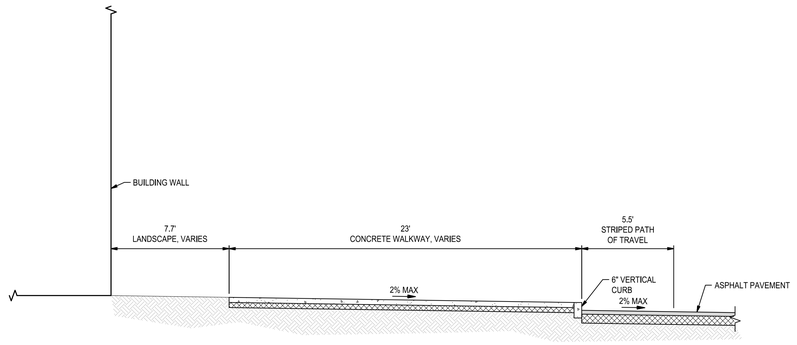
5/2/2022 12:12:59 PM C:\BIM\2021\Projects\C1014.00-Sutter Roseville MOB 10_A21_gharding\RY4N9.rvt

LIGHTING FIXTURE SCHEDULE

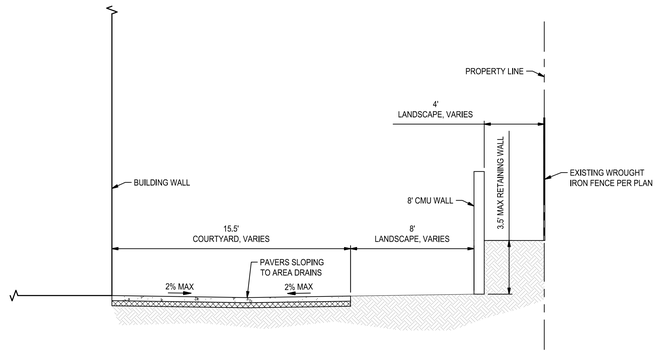
TYPE	MANUFACTURER & CATALOG No.	LAMP	VOLTS / VA	MOUNTING	REMARKS	QTY	TOTAL WATTS
A	NLS LIGHTING TBL-36-T2-16-SS-40K-UNV-AB-TBD-DC-8	LED (1)	277 / 28	BOLLARD IN-GROUND	PATIO LIGHTING AND PATHWAY LIGHTING	6	168
B	CREE LIGHTING OSGM-B-16L-40KT-3M-U	LED (2 HEADS)	277 / 208	POLE @+25'-0"	PARKING LOT POLE LIGHT, DOUBLE HEAD	2	408
C	CREE LIGHTING OSGM-B-1IL-40KT-3M-U	LED (1)	277 / 72	POLE @+25'-0"	OUTSIDE WAITING AREA POLE, SINGLE HEAD	1	72
D	NLS LIGHTING TRG-I-T2-16L-T-40KT-UNV-S6L-TBD-FSPB-IO	LED (1)	277 / 36	POLE @+10'-0"	PATHWAY LIGHTING, PEDESTRIAN POLE	11	396
E	PRIMUS LIGHTING ELB-FL-LED-H-4K-UNVI-FD-MSP-W	LED (1)	277 / 36	SURFACE	DROP OFF AND PATIO LIGHTING, STRIP	16	576
F	BROWNLEE LIGHTING 7075-24-TBD-HS2-BBC	LED (1)	277 / 32	WALL, ABOVE DOOR	DOORWAY AND EGRESS LIGHTING, 90 MIN BATTERY BACKUP	10	320
G	LITON LIGHTING CH6LS1022-UE-DIO-CR6L22-CN-TS354	LED (1)	277 / 38	DOWNLIGHT	ENTRY CANOPY CAN LIGHT, 90 MIN BATTERY BACKUP	4	112
H	COLE LIGHTING L215ADW-HO	LED (1)	277 / 9	STEP LIGHT	STEP LIGHT IN IN-GROUND SEAT	6	54
	LANDSCAPE LIGHT TBD	LED (1)	277 / 6	UP LIGHT	LANDSCAPE LIGHTING THROUGHT THE SITE UP LIGHTING THE TREES.		

THERE IS 0.0FC OF LIGHT BLEEDING OVER THE PROPERTY LINE @ +10'.

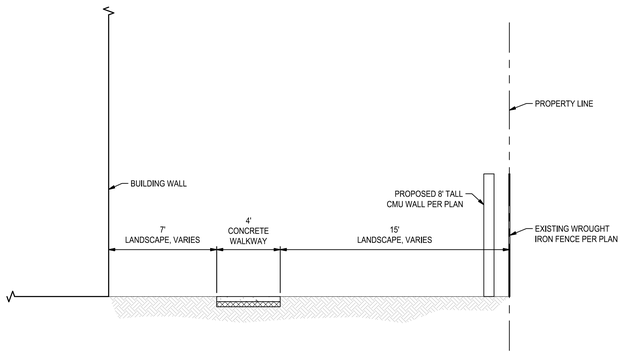

STEP
STEP
STEP



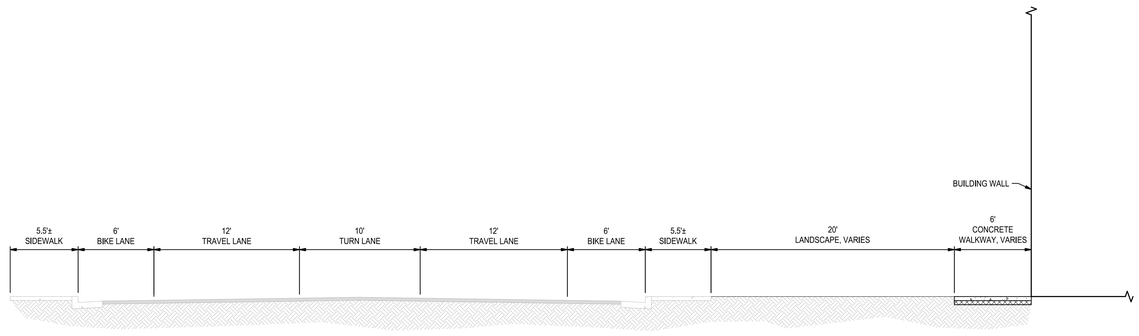
1 CROSS-SECTION 1
NOT TO SCALE



2 CROSS-SECTION 2
NOT TO SCALE



3 CROSS-SECTION 3
NOT TO SCALE



4 CROSS-SECTION 4
NOT TO SCALE

Dreyfuss+Blackford
architecture

SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE
BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

CROSS-SECTIONS

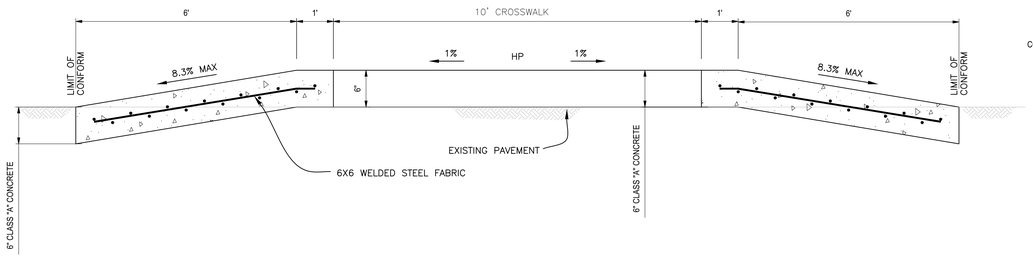
C1014.00

:2 MAY 2022

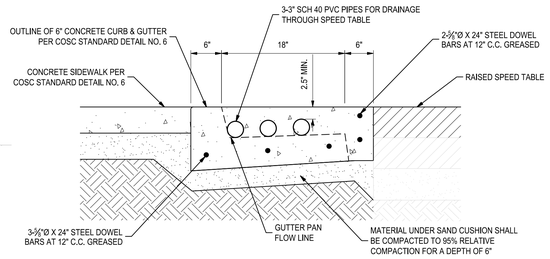
C4.1

811 Know what's below. Call before you dig.

2/8/2022 3:10:00 PM f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C4.1 CROSS-SECTIONS.dwg



1 **SPEED TABLE CROSSWALK**
NOT TO SCALE



1 **SPEED TABLE CURB AND GUTTER**
NOT TO SCALE

Know what's below.
Call before you dig.

Dreyfuss+Blackford
architecture

SIEGFRIED
CIVIL
STRUCTURAL
LANDSCAPE ARCHITECTURE
SURVEYING
PLANNING
ATHLETIC FACILITY DESIGN
900 How Avenue, Suite 200 Sacramento, California 95825
916-520-2777 www.siegfriedeng.com Fx: 209-942-0214

CITY APPROVAL STAMP

City of Roseville Approval

THIS DRAWING IS NOT FINAL OR TO BE USED FOR CONSTRUCTION UNTIL IT IS SIGNED BY THE ARCHITECT/ENGINEER

ENTITLEMENT PACKAGE

REVISION	BY	DATE

SUTTER ROSEVILLE MEDICAL CENTER

MEDICAL OFFICE BUILDING 7

7 MEDICAL PLAZA
ROSEVILLE, CA 95661

DETAILS

C1014.00

:2 MAY 2022

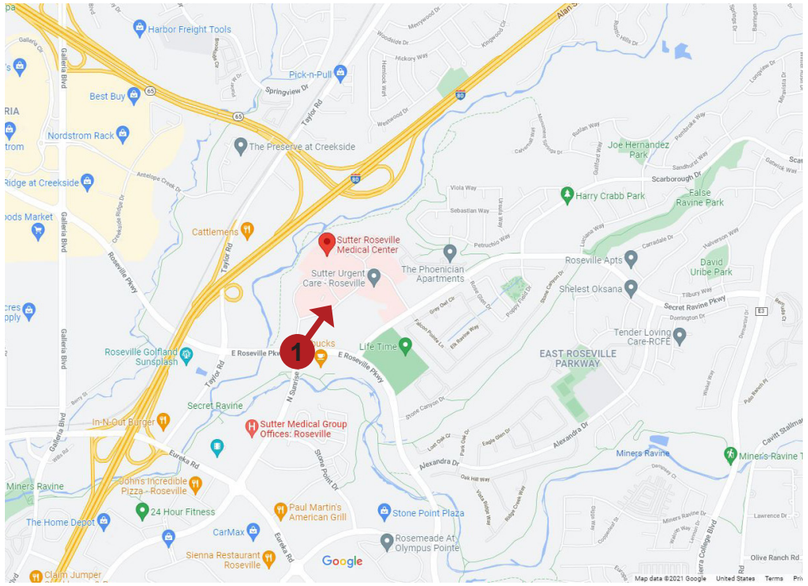
C8.0

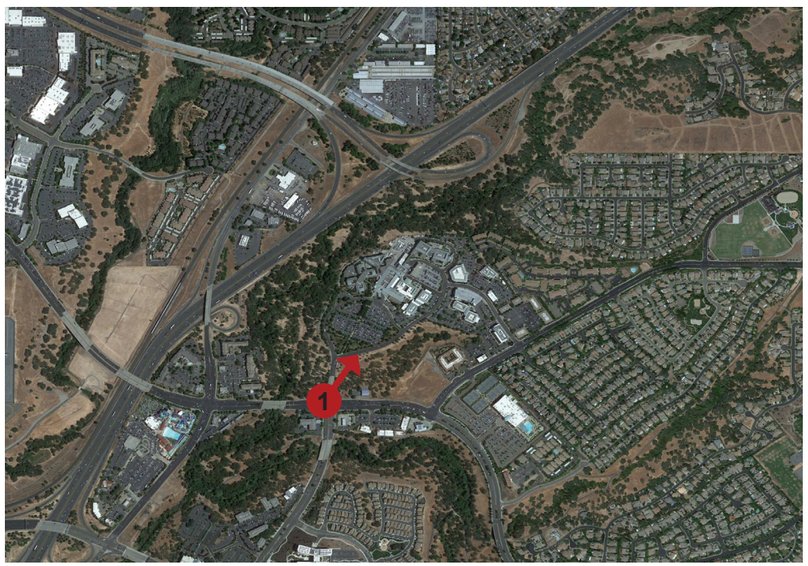
2/8/2022 3:10:00 PM f:\21projects\21052 roseville sutter mob\plans and graphics\entitlements\MOB\21052-MOB-C8.0 DETAILS.dwg

Sutter Roseville Medical Center MOB 7

View Studies

VIEW 1







E. Roseville Parkway & N. Sunrise Ave.

Sutter Health
Sutter Roseville Medical Center

Dreyfuss+ Blackford

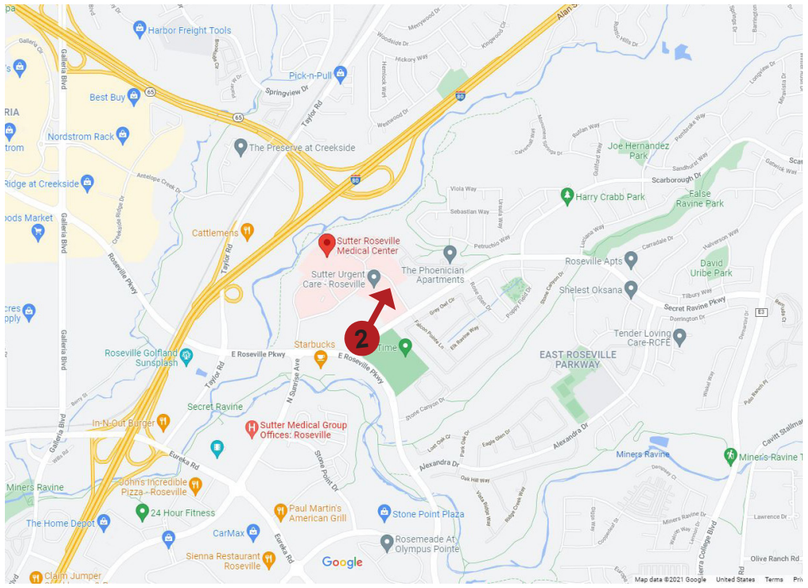
SEPAROVICH/DOMICH REAL ESTATE DEVELOPMENT

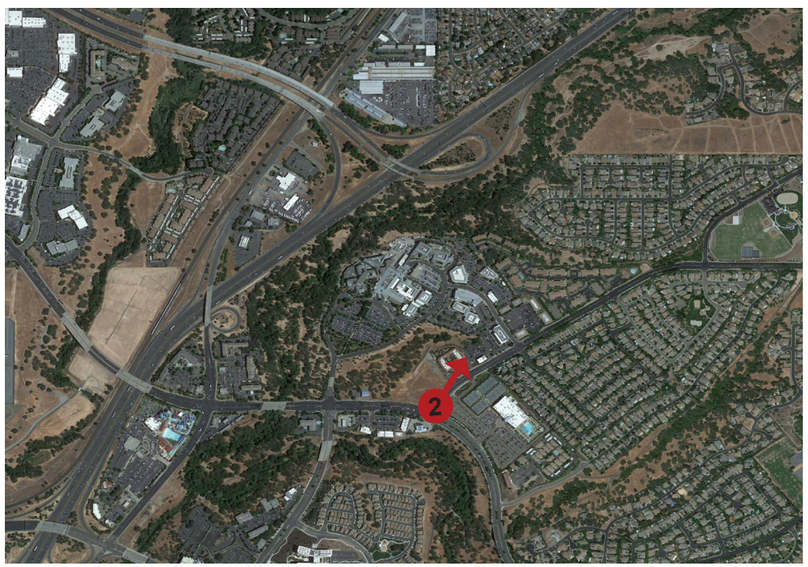
RAVEL RASMUSSEN PROPERTIES

SUTTER ROSEVILLE MEDICAL CENTER MOB 7

04/15/22

VIEW 2







E. Roseville Parkway & Secret Ravine Parkway

Sutter Health
Sutter Roseville Medical Center

Dreyfuss+ Blackford

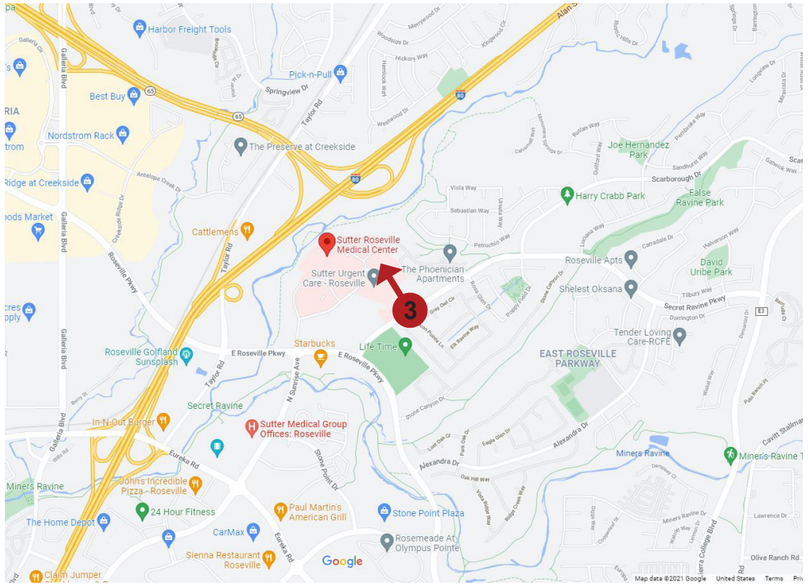
SEPAROVICH/DOMICH

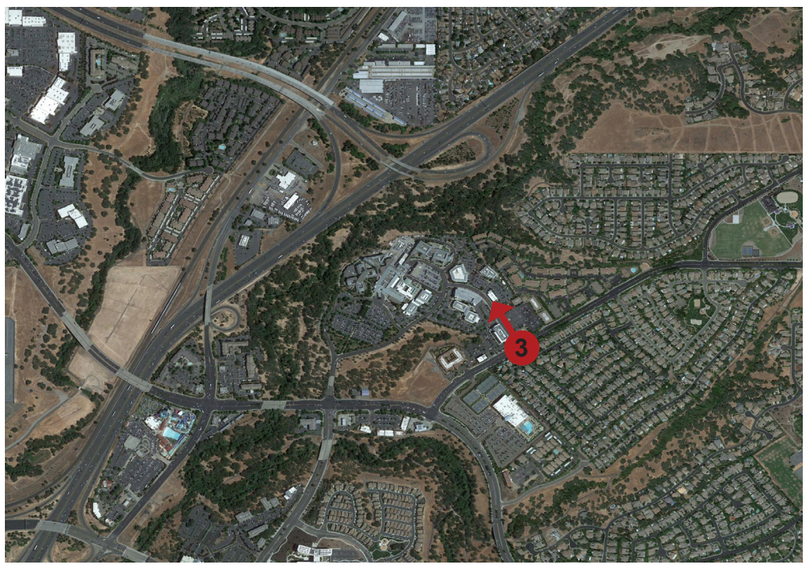
RAVEL RASMUSSEN PROPERTIES

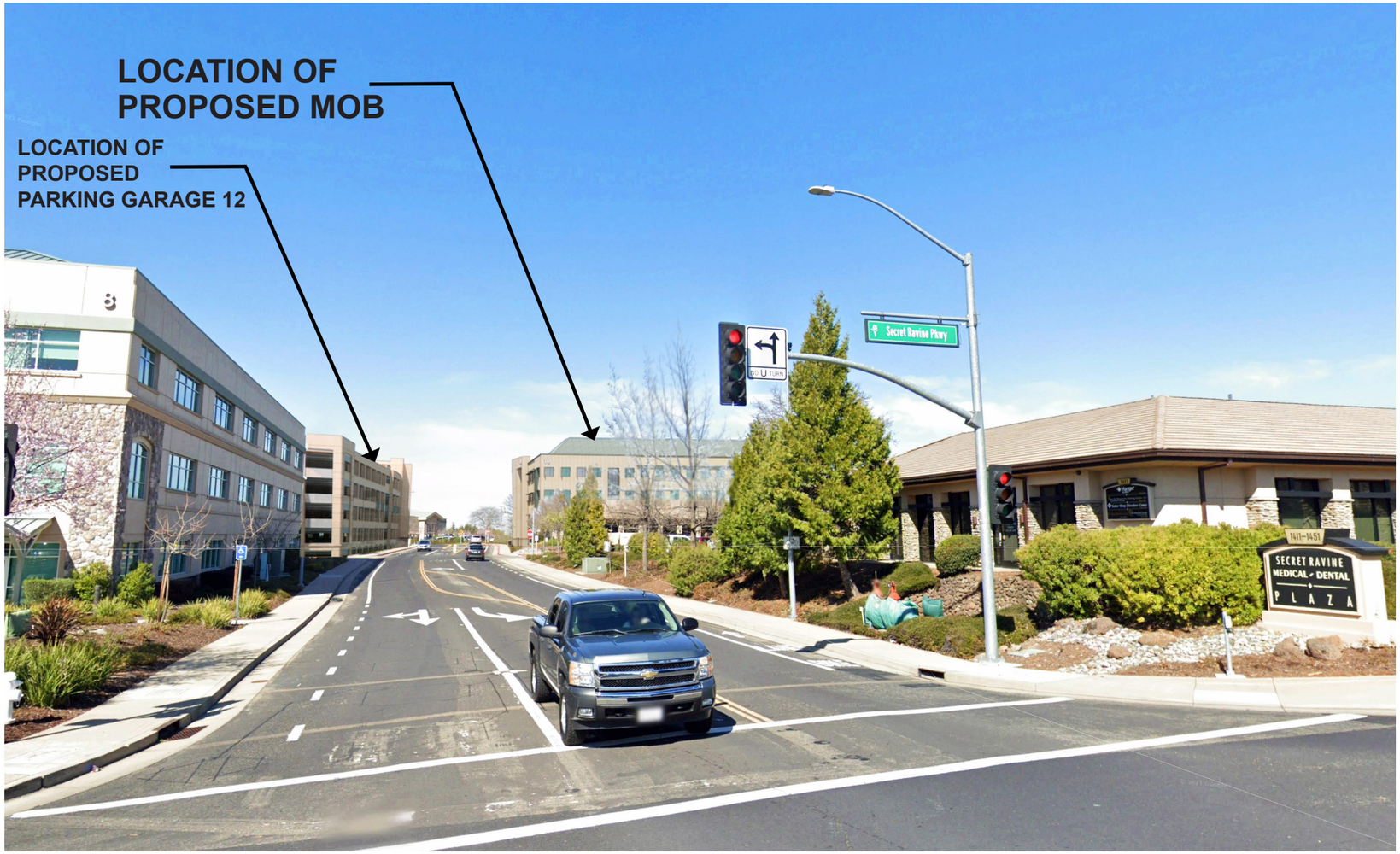
SUTTER ROSEVILLE MEDICAL CENTER MOB 7

04/15/22

VIEW 3

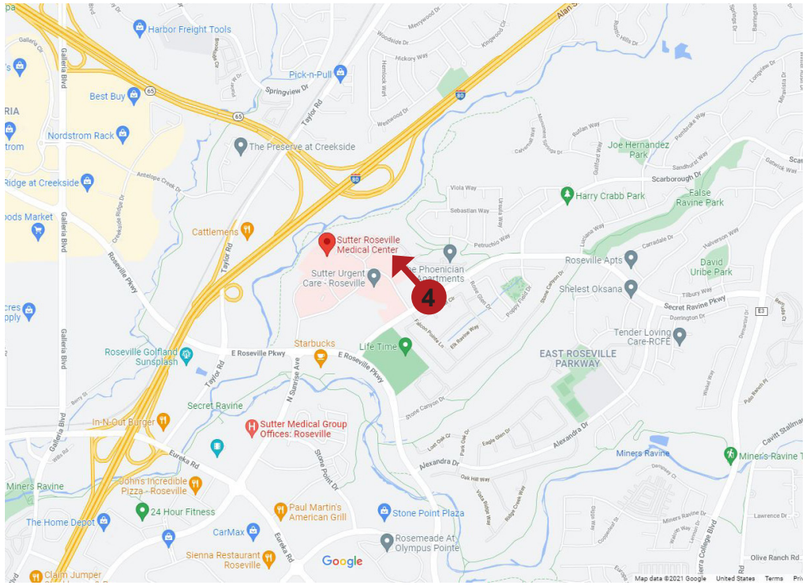


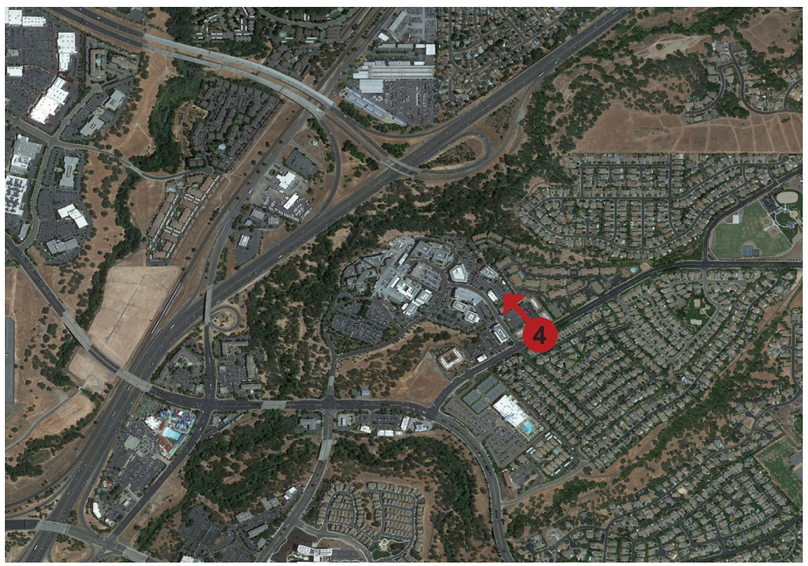




Secret Ravine Parkway & Medical Plaza Drive

VIEW 4

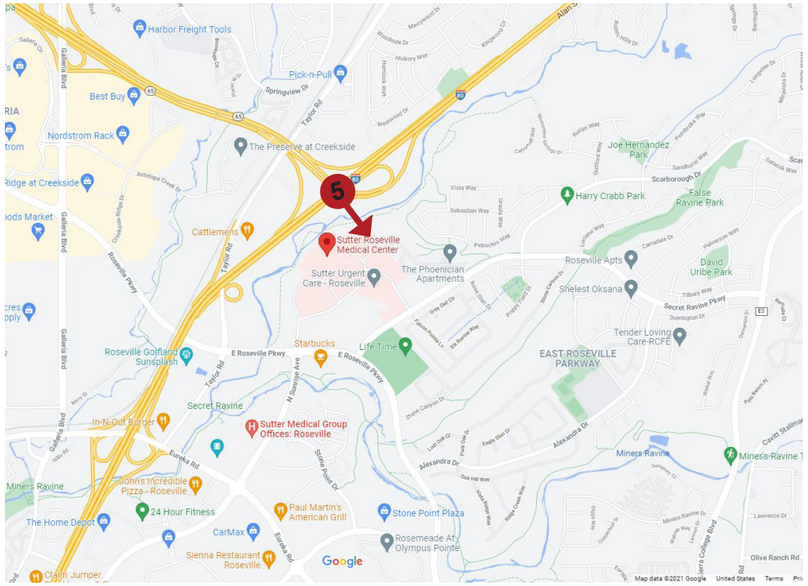


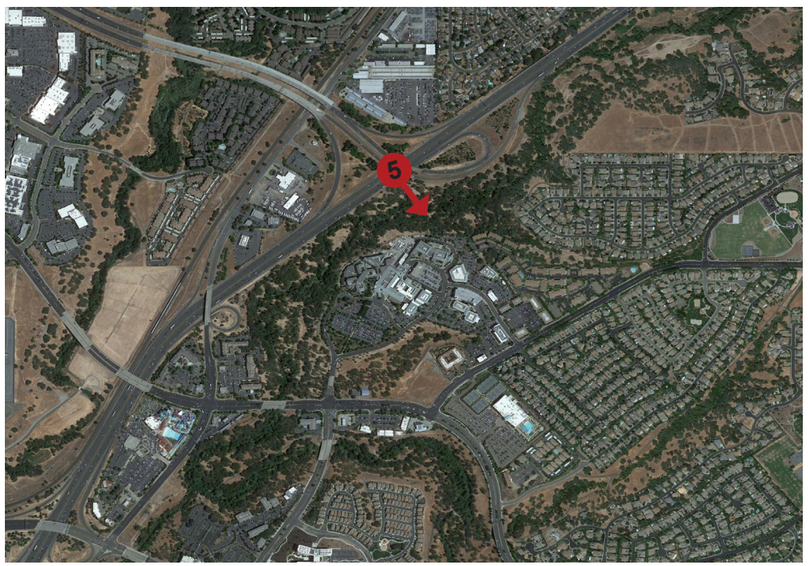




Secret Ravine Parkway - North

VIEW 5

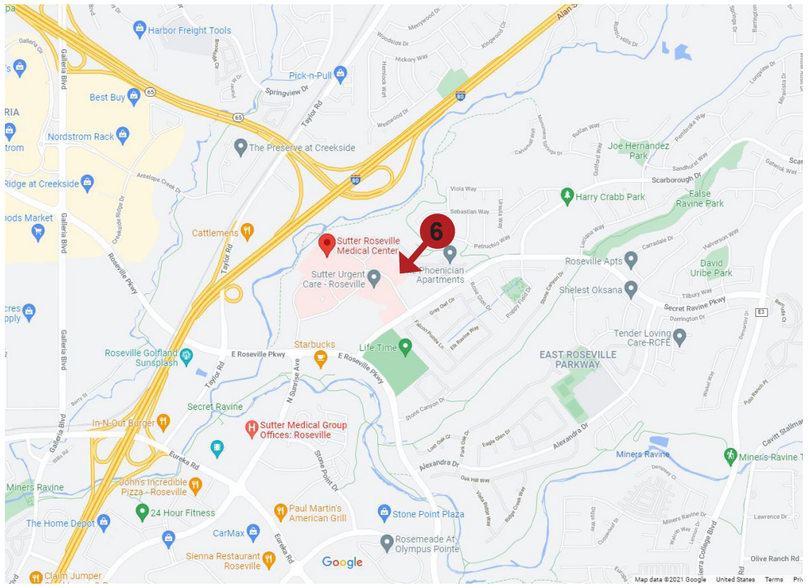


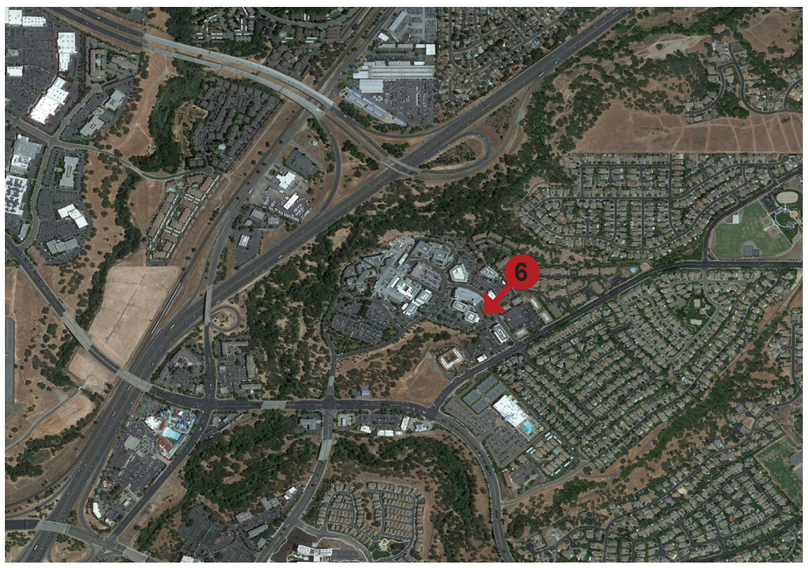




Interstate 80 & Highway 65

VIEW 6

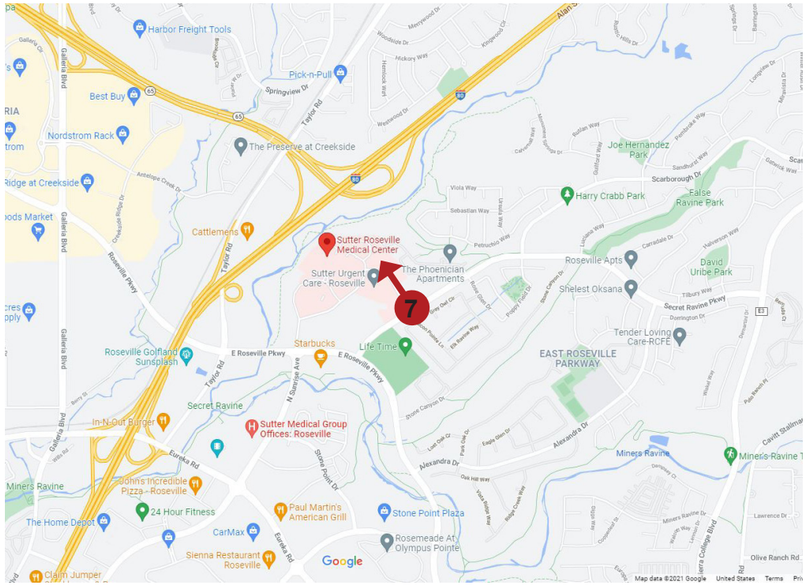


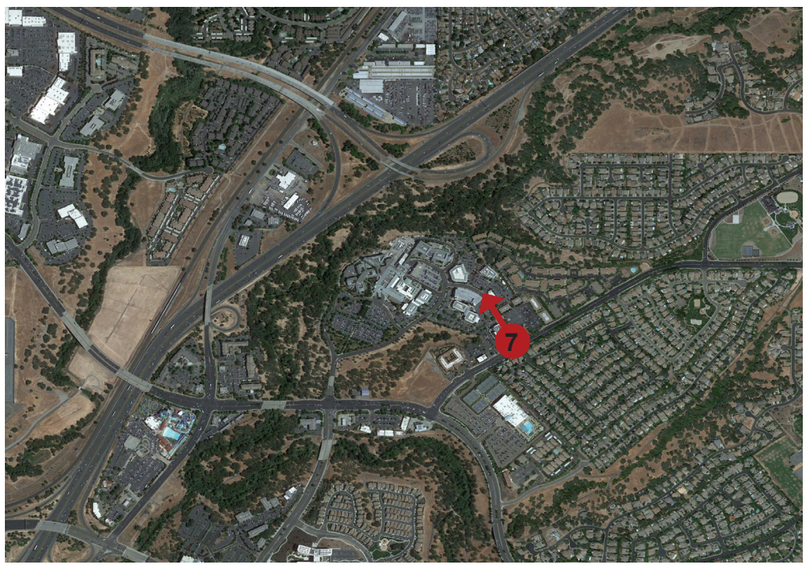




View from the Apartments

VIEW 7

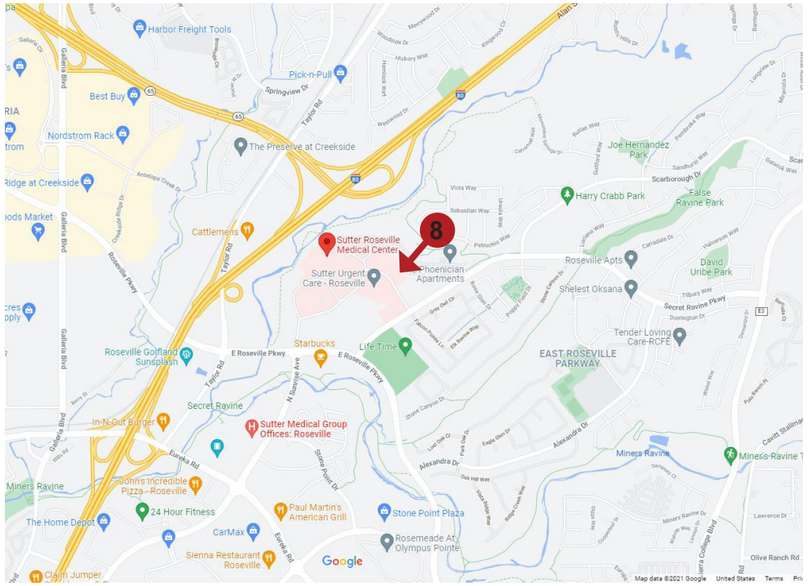


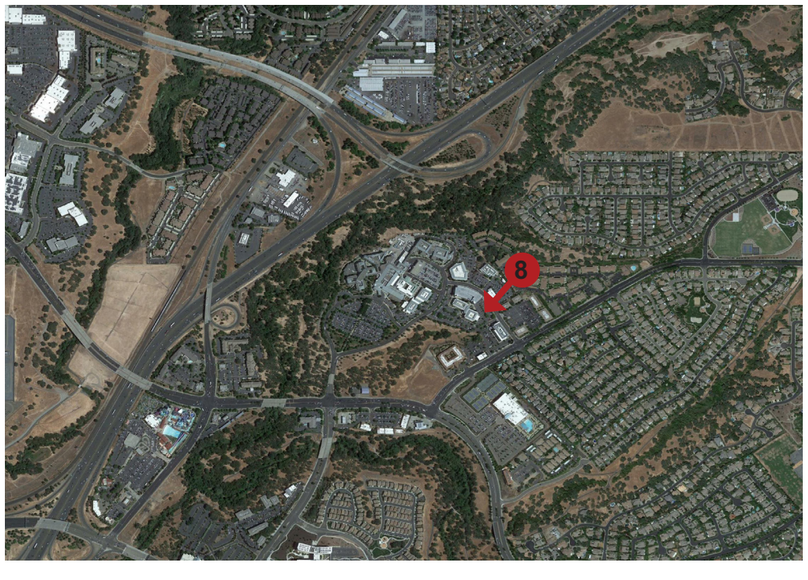




Night View at Secret Ravine Parkway & Medical Plaza

VIEW 8







Night View from the Apartments

Sutter Health
Sutter Roseville Medical Center

Dreyfuss+Blackford

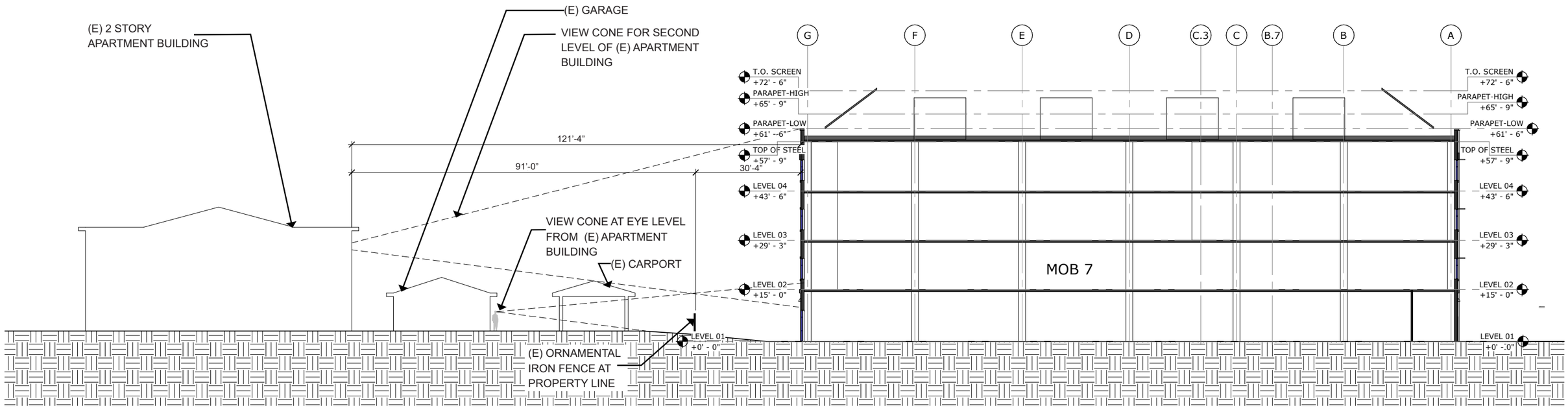
SEPAROVICH/DOMICH REAL ESTATE DEVELOPMENT

RAVEL RASMUSSEN PROPERTIES

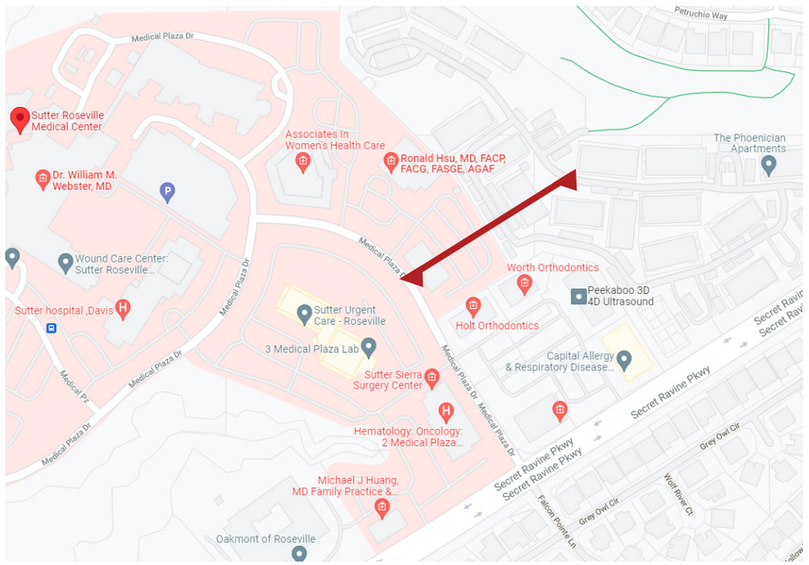
SUTTER ROSEVILLE MEDICAL CENTER MOB 7

04/15/22

SITE SECTION







Sutter Health
Sutter Roseville Medical Center

Dreyfuss+ Blackford

SEPAROVICH/DOMICH

RAVEL RASMUSSEN PROPERTIES

SUTTER ROSEVILLE MEDICAL CENTER MOB 7

04/15/22

Sutter Health
Sutter Roseville Medical Center

Administration
One Medical Plaza
Roseville, CA 95661-3037
(916) 781-1000

To Whom It May Concern:

Sutter Roseville Medical Center delivers advanced and high-quality medical care in an environment that promotes healthier outcomes – a commitment that calls for modern facilities, advanced technology, dedication to patient- and family-centered care and highly trained physicians and care teams. We are committed to meeting the future needs of our community and region, and are proud to launch the first multi-disciplinary residency program in Placer County to train future physicians so that our patients can continue to have adequate access to quality care.

SRMC's graduate medical education (GME) physician training residency and fellowship programs will commence academic year 2022 (July 1, 2022), when we welcome our first cohort in the specialties of Internal Medicine and Surgery. We plan to add several more areas of focus over the coming five years. By 2027, SRMC's campus will have more than 100 learners training to provide excellent, compassionate care for decades to come.

Medical Office Building 10 on the Roseville campus will serve as the base of operations for the GME program, housing:

- Administrative offices
- Classrooms
- Conference space for didactics and lectures
- A simulation center
- Other shared space to support the development of these physician training programs

The majority of activity within this space will occur between 7 a.m. and 6 p.m., with occasional meetings, lectures and events held in the evening.

With challenges in recruiting physicians in many specialties and a high percentage of doctors nearing retirement age, this program will help establish a pipeline of highly qualified, "homegrown" physicians for the multi-county region served by Sutter Roseville. Moreover, the GME program will allow the next generation of hospitalists, surgeons, and other specialists to be immersed in the not-for-profit mission and vision of Sutter Health, providing care to more underserved people in Northern California than any other system.

The GME programs at Sutter Roseville are accredited by the Accreditation Council of Graduate Medical Education (https://www.acgme.org), are compliant with the Association of American Medical Colleges (https://www.aamc.org) and the individual specialties medical boards, and follow Centers for Medicare and Medicaid guidelines.

Please do not hesitate to reach out should you need further information.

Brian Alexander
CEO, Sutter Roseville Medical Center
Area CEO, Sutter Health Hospitals

SUTTER ROSEVILLE MEDICAL CENTER
CAMPUS MASTER PLAN - SQUARE FOOTAGE SUMMARY

02/25/22

Sutter Health
Sutter Roseville Medical Center
We Plus You

Acute vs Outpatient Use

CURRENT ACUTE USES	Included in 2006 Masterplan	2006 Masterplan Future Projects	Actual SF of Project
Existing Hospital Acute Spaces:	320,800		
Acute Use in MOB 4:	14,992		
Bed Tower:	90,240		
Well-Baby Nursery:	2,037		
6 Medical Plaza (ARC)	105,730		
NICU	12,800		
Future Imaging/Surgery Expansion		22,800	
Future Acute Space 13		69,420	
Future Acute Space 14		99,681	
ED Expansion (2016)			98,368
Total	546,599	191,901	98,368

Total 2006 Masterplan Possible Acute SF	**738,500**	
Total 2022 Actual Acute SF		**644,967**

CURRENT OUTPATIENT USES / MOB'S	Included in 2006 Masterplan	2006 Masterplan Future Projects	Actual SF of Project
Outpatient uses in Acute Space:	12,015		
2 Medical Plaza (MOB 2)	76,000		
3 Medical Plaza (MOB 3)	62,075		
4 Medical Plaza (MOB 4)	14,467		
5 Medical Plaza (MOB 5)	60,000		
Future 1351 Secret Ravine		30,000	
8 Medical Plaza (MOB 8, 2014)			60,000
11 Medical Plaza Future MOB		60,000	
12 Medical Plaza Future MOB		46,943	
10 Medical Plaza MOB (Phase 1)			85,000
10 Medical Plaza MOB (Phase 2)			15,000
Total	224,557	136,943	160,000

Total 2006 Masterplan Outpatient SF	**361,500**	
Total 2022 Proposed Outpatient SF		**384,557**

OVERALL CAMPUS SF	Included in 2006 Masterplan
Total 2006 Masterplan SF	**1,100,000**
Total 2022 Proposed Acute + Outpatient SF	**1,029,524**
Remaining SF for Future	**70,476**

MATERIALS BOARD

NOTE:
- INTENT IS TO MATCH COLORS BEING USED ON EXISTING BUILDINGS ON CAMPUS.
- REFER TO EXTERIOR ELEVATIONS FOR MORE INFORMATION.

MATERIALS



CAST-IN-PLACE & PRECAST CONCRETE



FIELDSTONE - MATCH EXISTING ON CAMPUS



ANNODIZED ALUMINUM



GALVANIZED METAL



FINISH METAL - COLOR TBD

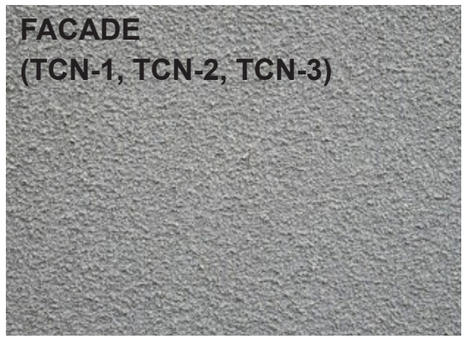


VISION GLASS - COLOR TBD

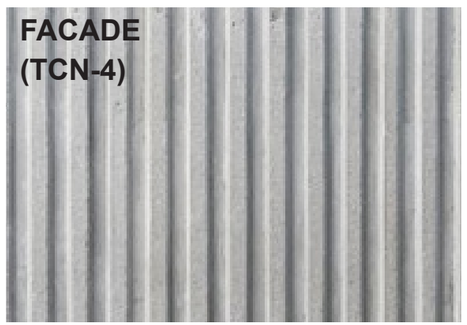


SPANDREL - COLOR TBD

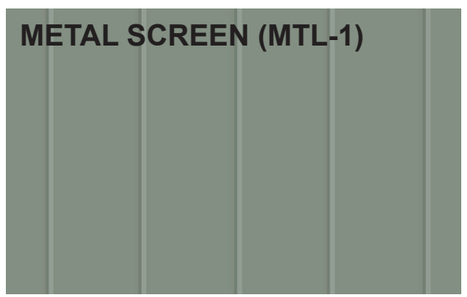
TEXTURES



SAND BLASTED THIN SHELL CONCRETE



TEXTURED THIN SHELL CONCRETE



STANDING SEAM METAL ROOF - COLOR TO MATCH EXISTING ON CAMPUS

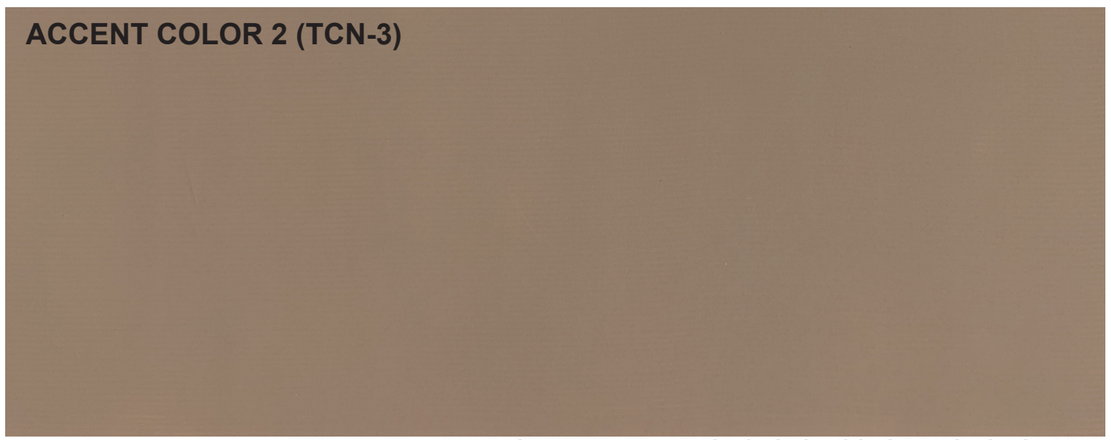
COLORS



SHERWIN WILLIAMS - TRUSTY TAN SW6087



SHERWIN WILLIAMS - CUSTOM COLOR ZAPPA



SHERWIN WILLIAMS - CUSTOM COLOR ENGLISH SADDLE

Sutter Health
Sutter Roseville Medical Center

Dreyfuss+Blackford

WILPEKS

SEPAROVICH/DOMICH
REAL ESTATE DEVELOPMENT

RAVEL RASMUSSEN PROPERTIES

Sutter Roseville Medical Center MOB 10 02/25/22